Hotel Service Convergence Innovation

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Abstract

Industry convergence has taken place in many different fields, making it a hot research topic. There are studies on industry convergence in the manufacturing industry, the food and pharmaceutical industries, and between manufacturing and services industries. The hospitality industry provides lodging and catering services, which provides a great platform to integrate multiple industries in order to enhance customer experience. However, there has been little focus on industry convergence in the hospitality or hotel industries. Therefore, a better understanding of service convergence innovation from both a systematic and a holistic perspective are needed. The result showed that in order to form effective mechanisms for coordination and integration of service, it was necessary to use systematic digital information technology, which could transfer practical experience into a standardized demonstrable learning database system. The implication of this study is that the illustrations on the factors as well as contexts to foster service convergence practices could facilitate managerial endeavors by hospitality business professionals. Appropriate incentive mechanisms which leverage as well as motivate partnership endeavors should be the core aligning individuals and organization goal instead of imposing regulative order.

Key words: Service convergence, innovation, narrative research, hotel, China
1 Introduction

With the advancement, extensive penetration and expansion of the internet and new technologies, the availability of multiple distribution channels, online travel and the sharing economy have challenged traditional hotel industry operations. The international hotel industry has witnessed a stagnation of average daily rate (ADR), occupancy rates and other important operational indicators. Globally, the average annual growth rate of revenue per available room (RevPAR) in five-star hotels was less than 2 per cent. Considering the inflation rate, the growth would be negative. The domestic market in China is also facing a similar situation. In 2019, the business revenue of all star-rated domestic hotels was 130.5 billion yuan, with a year-on-year growth rate of only 1.4%, down 12.68 percentage points from 2016 (Fang, 2020). China’s hotel industry is facing unprecedented challenges, huge competition and massive changes (Huang et al., 2015). To cope with these, it is important to address the issue of innovation in order to improve the reputation and competence of China’s hotel industry. Industry convergence is an innovative method used to integrate knowledge, technology and service from different industries (Lee, 2015; Kwon, 2018). It can break through traditional industrial boundaries to create new applications and values that will enhance the experience of users. For example, smartphones have become an all-in-one substitute for the telephone, camera, computer and internet, and as a leader in innovation and integration, Apple has led the transition to redefining both the mobile phone and the computer industry. Industry convergence can therefore be defined as the innovative power to promote industrial innovation and economic growth (Miller & Morris, 1999).

In recent years, industry convergence has occurred in many different fields, making it a hot research topic. There are studies on industry convergence in the manufacturing industry (Kim et al., 2015, Jeong, et al., 2015), the food and pharmaceutical industries (Hasler, 2002; Sabine, 2016; Spence, 2006; Lee, 2018), between the manufacturing and services industries (Kim et al., 2015; Schmenner, 2009), in service industries such as media (Chon et al., 2003; Wirtz, 2001; Yao et al, 2015; Lin, 2017; Li, 2019), in the library and cultural industries (Robinson, 2011) and in the tourism and medical
industries (Wernz and Phusavat, 2014,). The hospitality industry provides lodging and catering services, providing a great platform to integrate multiple industries in order to enhance the experience of customers (Li, 2015). However, there has been little focus on industry convergence in the hospitality or hotel industries, making a better understanding of service convergence innovation from a systematic perspective and holistic perspective necessary. This study undertook a case study of the Nansha Grand Hotel, China, which was aimed at exploring the possibility of convergence and integration of services in the hotel industry by using a narrative method. Firstly, this paper establishes a concept of service convergence innovation through an analysis of the existing service convergence and service innovation literatures. Secondly, we present the process of service convergence innovation at the enterprise level through interpreting and unfolding interviewees’ storytelling via narrative inquiry. Thirdly, combined with the opinions of enterprise experts, we gradually converge narrative materials to find out some drive forces for service convergence innovation and discuss the reasons of service convergence innovation. Finally, we analyze the research results, and discuss the managerial implications and contributions of this research to the field.

2 Literature Review

2.1 Service Convergence
The European Commission (1997) defines convergence as the integration of three angles, including industry alliances and mergers, technology network platform and market. Bröring and Leker (2007) explain that convergence is blurring boundaries, due to the integration of value orientation, technology and markets within various industries. The ambiguity of such boundaries will increase the connectivity and compatibility of converging industries. Moreover, this process will eventually transform the traditional industry into a new one and new paradigms can spread (Lee, 2018). This is done by bringing creative destruction to relevant markets through the provision of alternative or complementary products, resulting in restructuring of the nature of competition and cooperation between them. With the arrival of the service economy era, the service industry more commonly interfaces with other industries, such as the manufacturing and agriculture industries, which are called servitization (Martinez et al., 2019; Kowalkowski et al., 2017; Frank et al., 2019). Convergence
that relates to services is generally referred to as service convergence. Wernz and Phusavat (2014) define service convergence as the tendency of previously separate service offerings from different industries to evolve towards an integrated service product. Service convergence is driven by the needs of consumers for better quality, more creative products and services. It is also driven by the needs of businesses for competitive advantages because globalization has led to greater competition and business opportunities. Li (2015) suggests that the factors driving the convergence of other industries also promote the convergence of services. With the arrival of the service economy era, service convergence is occurring more frequently, and has become an important form of service innovation.

Service sectors are different from traditional manufacturing industry sectors. Their products are mostly intangible – indeed, intangibility, inseparability, perishability and heterogeneity are among the unique characteristics of services (Parasuraman, Zeithaml & Berry, 1985). Intangibility refers to a lack of physical form, while perishability relates to the need for services to be consumed within a particular time period – for example, hotels and restaurants reserved on certain days need to enjoyed on the designated dates. Hotels strive to maximize occupancy because rooms have daily values. Inseparability refers to the link between the service delivery and service consumption process. Heterogeneity is determined by the fact that service providers’ skills, personalities and moods, and those of customers, a different in every service encounter.

Due to the unique nature of services, service convergence is more likely to occur when customers have various needs at the same time, because different service products do not occupy a particular space, so they can be consumed together. For this reason, the most important engine of service convergence isn’t technological advances, but rather non-technological aspects such as customers’ needs, business models and innovation.

2.2 Service Innovation
Innovation is critically important for the long-term success of organizations. Enterprises unable to innovate and adapt to changing market demands quickly lose their market position. This also applies to service sectors. Service innovation has
been broadly concerned since 1980s (Carlborg, 2014; West, 2018). Giannopoulou and colleagues (2014, p. 25) define service innovation as ‘a type of product innovation involving the introduction of a service that is new or significantly improved with respect to its characteristics or to its intended uses’. When looking at the degree of innovation, service innovation has six modes (Gallouj & Weinstein, 1997):

- **Radical innovation** refers to innovation that leads to the creation of completely new product/services, replacing existing ones.
- **Improvement innovation** refers to innovations that lead to the improvement of some product characteristics.
- **Incremental innovation** refers to innovations that lead to limited changes of certain features of services.
- **Ad hoc innovation** refers to specialized service innovation proposed by knowledgeable intensive industries to solve customers’ issues, which implies changes in capability vectors.
- **Formalization innovation** means formalizing or normalizing one or more characteristics of services.
- **Recombination innovation** refers to combining one or more service characteristics to decompose and create new services.

### 2.3 Service Convergence Innovation

The sixth type of service innovation, recombination innovation, has two forms according to Gallouj and Weinstein (1997). One is to create new services by combining one or more services; the other is to create new services based on the characteristics of old services. The former type seems to be closely linked to the convergence concept, which involves integrating knowledge, technology and services from different industries. We believe that convergence – in particular service convergence – can be an important source/method of service innovation. We name this type of innovation ‘service convergence innovation’; it is an innovation method based on the integration of knowledge, experiences, technology and process from different sectors (including, but not limited to, service sectors). The key here is to use
‘convergence’ as a way to innovate. Service convergence innovation can provide new services that will better satisfy customers or enrich customers’ experiences.

For example, a hotel in China, the Nansha Grand Hotel, introduced peripheral tourism services by combining its lodging services with tourism services, which helped to enhance its core capabilities. This provided hotel customers with integrated leisure and holiday services instead of just lodging services. In the service convergence innovation process, the convergence innovation of leading enterprises is very important because a large number of organizations then follow the same practice once the innovations are accepted by the market. Therefore, knowing how service convergence innovation was formulated, developed and implemented – or, in other words, opening the ‘black box’ – is critically important. The purpose of the study is to uncover the path of service convergence innovation by the exemplar of the sector, the Nan Sha Hotel, China.

3 Methodology

3.1 Process Study and Narrative Inquiry Method

The aim of this study explores the process of service convergence and innovation. Bruner(1986) elaborated two modes of knowing when human study on the social matters regarding to “what” and “how” questions. One of them is narrative mode of knowing by which “story” represents how social matters happened, evolved. Through narrative knowing, story becomes a major source for people can observe how things get evolved and understand the intricacy intertwined all the way, as it provides clues that is context-related for better understandings on how things going, experiencing and the order as well as meanings of them. Such way of knowing facilitates people to unveil the “how” questions of social matters (Bruner, 1986). Therefore, the narrative inquiry method employs story as the main research source can represent unique experience and elaborate the global picture along the innovation process holistically (Steyardt, 1997, 2007; Garud, Gehman and Giuliani, 2014). Such method uniqueness can facilitate us to depict the context-related stuffs and have deep observation of them for producing meaningful insights (Weick, 1995) as we conduct exploratory study on how services converge then further create service innovation along the way of service business developed in its convergence process.
Another reason to use the narrative inquiry method in this study is that it provides a different perspective, enabling the researcher to step outside the framework of conventional thinking. This allows a renewed focus on the subjects and event participants in the process of business convergence with innovation. Furthermore, through the process of learning about key participants’ inner mobility, daily practices and problem-solving, the path of convergence innovation is opened up, enabling researchers to come to a new understanding of ‘why’ and ‘how’ innovative actions are carried out.

The third reason to employ narrative method is its power to make sense of storyteller’s sensemaking. As the service convergence innovation are not the things being there in advance but co-emerged while participants experiencing the whole process. Their emergences are unveiled while researchers interpreted and unfold interviewees’ storytelling via narrative inquiry. Narrative materials, including self-narration, real life events, dialogues, conversations and stories gained from interviews, are the fundamental form of specific experiences in a narrator’s real life (Riessman, 1993). These stories fully represent the unique innovation process and elaborate holistically on the overall appearance of service convergence innovation process.

4 Data Collection and Analysis

4.1 From Narrative Materials to Field Texts
A total of fifteen in-depth interviews were conducted by the research team. Field texts are most often produced by the researcher by transcribing the narrative materials. In this case, the researchers and the narrator were both involved in this process. This procedure functioned to provide more detailed backgrounds and context accounts so
that new stories could be created. Additional narrative materials were then added to produce new plotlines and to reconstruct original stories.

*Coding narrative materials and retrieving meanings to category then constructing specific meaningful themes*

The transcripts from interviews along with affiliated data from observations and participations were read numerous times. Key words and sentences were identified and sentences with similar meanings were grouped and marked as, for example, ‘difficulty, question, thinking, reflection’. These labels were then put into categories. In this instance, ‘difficulty, question, thinking, reflection’ was placed into the ‘problem-driven enactment’ category. Connections were then established among named categories, which were allocated into specific themes while simultaneously comparing identified themes with raw data. Named categories were continually processed until the saturation of the data analysis had been reached.

*Plotting: Grouping specific meaningful themes into structured story line*

Reorganization of the above data analysis produced chronological events and also specific meaningful themes that represented some plots. Chronological events can give a clear spatial sense in terms of understanding how things evolved, based on the narrators’ stories. The meaningful themes that are silently unveiled in this process can then be rearranged into a specific storyline and plotted into a comprehensive story.

4.2 *From Field Texts to Research Texts*

What was originally orally tape-recorded by interviewees ended up in mutually produced field texts categorized into temporal stages and narrated events. The researcher then reconstructed the field text into this research text. This process was driven by an aim of bringing service convergence and innovation, as well as the work experiences of the hotel room employees and managers, together in the context of daily life. Clandinin and Connelly (2003) mention three necessary considerations in the methodology of narrative inquiry that guided this process: consideration of theory; consideration of field text orientation; and consideration of interpretation and analysis. In terms of consideration of theory, the phenomenon is explored through the narrative
perspective of the field texts. As for the consideration of field text orientation, contact and conversation with the narrator was avoided and instead the focus was on reading field texts to construct the research texts. Finally, in terms of interpretation and analysis, reflection on the relationship between field texts and research texts was sought. The aim was to find the ‘hidden’ themes in the field texts, bearing in mind that the research texts reflected how researchers depicted the themes, which were not necessarily the same themes that would stand out for the narrator. The research texts were written based on the above considerations following the continuous discussions, readings and self-inquiries.

5 Results

5.1 Story Narrative of the Nansha Grand Hotel

The hotel industry is the earliest industry in China to have opened its doors to the outside world after the opening up of China under Deng Xiaoping. In 1978, the influx of inbound tourism resulted in a huge demand for upscale hotels in China. At that time, China’s guesthouses were part of government departments, and were not suitable to meet the huge demands for accommodation. Therefore, the Chinese government was committed to building more upscale hotels, of which the White Swan Hotel was the first joint venture hotel, built by the Guangdong government and the Henry Fok Group. The hotel design featured elements of Chinese culture and the international hotel management philosophy introduced led to it being the benchmark for upscale hotels in China. Since then, the hotel industry in China has developed rapidly, with more international hotels entering the market and the number of local hotels increasing too. However, most of the hotels are managed using a Western-style hotel management system. With the success of the White Swan Hotel, the Henry Fok Group continued to seek new investments in mainland China. In 1995, the Henry Fok Group started to build the Nansha Grand Hotel, which cost 880 million Yuan (US$125.5 million). When investing in the construction of the Nansha Grand Hotel, the Henry Fok Group aimed to build a landmark hotel like the White Swan Hotel. It was important that the hotel was not just a window to the world, but could also be managed effectively by Chinese people in order to develop a management system suitable for China.
5.2 Narrative Setting: Convergence of Academic and Industry Experiences

In 1988, Mr. Yang was employed as a lecturer in the Department of Tourism Management at Sun Yat-Sen University. He was also a training manager in the hotel training centre affiliated with the School of Management. When the Nansha Grand Hotel was planned, Mr. Yang was approached to be the General Manager, and to lead a team of people to monitor the management of daily operations prior to and following construction.

Mr. Yang remembers the situation when he first came to the Nansha Grand Hotel:

Actually, most of my staff are experienced in hotel management, and some of them have even been working in this industry for most of their lives. They call me ‘Boss’, which means that I have their respect, but not for my experience or my knowledge within this industry. In other words, no one will follow someone who does not know anything about the hotel industry. Most of the experienced staff challenge what I can do to lead this hotel.

After becoming General Manager of Nansha Grand Hotel, Mr. Yang realized that he was lacking hands-on experience. On one hand, he was learning while operating and reflecting on the disconnection between education and hotel management practice. On the other hand, he found that empiricism was highly emphasized and respected in hotel management. However, without systematic theory, it is hard to sum up new practice findings. He therefore kept engaging in field studies, which enhanced his understanding of practical experience within the hotel industry.

5.3 A Trigger Point: A whiteboard in the Engineering Department

The Nansha Grand Hotel has found that up to 30 per cent of the complaints received were related to the engineering department, such as having slow maintenance progress, long maintenance cycles, loss of regular repair reports and even mixing up two types of repair orders. The manager of the Engineering Department reported that there were two main reasons for the delays in maintenance. First, there were too many different types of facilities and equipment that required professional engineers, which resulted in inadequate maintenance staffing. Second, there were certain issues that seemed
complex, but in fact could have been solved by an experienced room attendant. The manager noticed that there was a big whiteboard hung on the wall of the office at the Engineering Department, upon which an engineer was recording new entries, while simultaneously wiping off other entries. The staff explained that the whiteboard was for ‘recording what we need to deal with every day, and wiping out what has already been done’. The issue was that there were times where jobs were completed but were still left on the whiteboard, which resulted in repeated repairs, indicating an ineffective feedback channel within this department.

5.4 A Problem Leading to Internal Innovation and Integration

Mr Yang found that the engineers recorded what to do on the whiteboard, which resulted in a lack of communication with other departments. Meanwhile, recording on the whiteboard did not reflect the actual progress on the tasks, thus resulting in poor efficiency and inadequate staffing. Through repeated communication with engineers in the field, Mr Yang produced a set of mechanisms, and developed a system known as a ‘centralized information platform’ to enable communication between the Engineering Department, other departments, technicians and supervisors. This system was named the ‘Maintenance Service System’. It entered maintenance orders, work completed, quality and quantity in the computer of the Engineering Department, which connected with other department managers, technicians and team leaders through their mobile phones. Once a maintenance order was placed and entered, this system showed the process in real time, including allocating the work to a specified technician; recording working time, location and any further work needed; and the team leader in charge of the job. Mr Yang said:

This system for integrating various types of internal services can have several benefits. First, technicians finish their work on time due to the standardized working time. Second, the status of the repairs can be seen in the system, which is helpful for knowing when normal services will resume. Third, the engineering supervisor is able to send the right person for the right job with the help of this system, quantifying what they do effectively and the value of their contributions. Finally, the engineering supervisor can follow up on maintenance orders at any time, and adjust
their schedules to meet the needs of temporary tasks.

5.5 Integration and Innovation Extended Internally: Internal Training System

Following the success of the Maintenance Service System, Mr Yang turned to the use of similar methods to solve issues in other departments within the Nansha Grand Hotel. Communication with the Human Resources Department led to three issues being flagged: the high turnover rates of employees within the Housekeeping Department; and the technology skills of new recruits; and on-site training. Mr Yang tried to envisage whether a similar approach of Maintenance Service System would be able to solve issues within the Housekeeping Department.

In terms of communication and guidance, it is important to let housekeepers be willing to co-operate and share their experiences, and ensure they understand that this would be of additional benefit to them, rather than lowering their existing work rights and interests. Next, to promote transformation, it is imperative to optimize operational procedures for standardization and documentation. Lastly, to execute the implementation, it would be necessary to transfer practical experiences into Standard Operating Procedures (SOP) and use them for training, evaluating the effectiveness of training and for continuous feedback and improvement.

5.6 An Overall Solution in Hotel Management: Further Development of Integration and Innovation

With the support and encouragement of the board of directors, Mr Yang began building a management system that would integrate all departments, based on the experiences of Mr Yang’s team. If successful, it would be a benchmark for local hotel management based on China’s particular national conditions. Setting up knowledge groups and dividing tasks were the breakthrough processes, with Mr Yang building up a theoretical and visual management system using his knowledge and experience in the hotel industry. After Mr Yang’s exploration lasting ten years and extensive cooperation with external IT company, an operational hotel management prototype finally came to fruition.
5.7 Application: Examining and Implementing in Service

Encouraging the application of a system is the key to achieving overall integration of an innovative hotel management system. Most importantly, in the process of implementing this system, all levels of staff in every department of the hotel were able to be aware of their tasks and responsibilities as conveniently as possible through their mobile phones. They could also take part in independent training and learning, and clearly define their own career development plans. This contributed greatly to the staff’s enthusiasm for work and self-improvement, which in turn led to reforms in their working environment and organizational culture. In an interview with the housekeeping manager, Mr Xu indicated that:

The task management system reduces the time spent on assigning tasks and recording time on paper, which also helps to supervise the staff’s working hours. In terms of staffing, it will be easier to keep a record of the workload and human resources required. In planning, it is more efficient and reasonable, and clearly shows what they have to do and how they should go about doing it. In other words, the task management system can reduce communication time, is easy to manage and enhances quality. Since most staff are people with lower levels of education, the system can be used on personal mobile phones, which makes the system easy to understand and operate. Stimulating the motivations of staff also increased their level of enthusiasm.

The Vice-General Manager Mr Li said, ‘This system is the first in China and no one else has it.’

At the end of the three-month probationary period, Mr Yang discussed the efficiency of this system with his team. The statistics from the information department showed that this system increased the efficiency rate for completion of the tasks of various departments in the hotel by 20 per cent, while the service quality was greatly enhanced. In a meeting with the Guangzhou Hotel Industry Association, Mr Yang presented this system to his peers, arousing their interest in introducing it themselves. Many hotels then started to introduce this system, with more than ten hotels currently using it, including the Holiday Inn, Sheraton and other internationally renowned
In the process of providing a management service, Mr Yang is improving this system on the basis of new developments among his team. When he discussed the problem of the gap between education and industry experience with the experts from the Tourism Vocational Education Industry Steering Committee, he shared the successful experience of the Nansha Grand Hotel, indicating that this management system could be introduced to training courses to establish a teaching model that integrated classroom teaching and hotel industry practice. The model is also suitable for training new staff, making it more efficient to practise tourism management. Furthermore, it will close the gap between education and industry experience as well as saving the costs involved in training new staff in hotels. As a result, Mr Yang further researched how to establish this system as a teaching model, with the support of the National Tourism Administration. A training base was built in the Nansha Grand Hotel for students to learn and also gain practical industry experience in the tourism and hospitality industry.

6 Discussion
The narrative story of the Nansha Grand Hotel showed that in this case service integration and innovation resulted from solving internal issues. Examining the dissatisfaction caused by the low efficiency of the maintenance system demonstrated that the Engineering Department required coordination and cooperation from different departments, which led to internal integration and innovation to improve operations and enhance service quality.

In order to form effective mechanisms for coordination and integration of service, it was necessary to use systematic digital information technology, which could transfer practical experience into a standardized demonstrable learning database system. This transformation transcended the original hotel resources and industry knowledge, bringing together integration among different fields to generate a new management concept. By integrating information technology, the team from the Nansha Grand Hotel and the IT company developed a hotel management system that was highly successful as a result of integration and innovation. It was first used to test
internal operations within the hotel, and subsequently relied on to provide training services and an overall hotel management solution for other hotels. The process of market integration and innovation in the hotel industry eventually resulted in the generation of an innovative business model for the Nansha Grand Hotel, transforming a traditional hotel service provider into a management consultancy for service providers. This path of convergence and innovation can be broken down in the following way, with several key points made.

6.1 Push factors: Solving Internal Operational Issues to Improve Efficiency and Enhance Service Quality

‘The Whiteboard’ in the Engineering Department might seem like an isolated event. However, it reflected the prevalence of empiricism and individualism within the department. This work method was archaic and inefficient, and was far from suitable for an upscale hotel that involved many departments to provide full service to guests. To improve internal operations and reduce customer dissatisfaction, Mr Yang and his team first solved the immediate issues within the Engineering Department. They then applied the system to solving existing issues in other departments, which paved the way for service convergence innovation. The success of the Nansha Grand Hotel’s system was not planned in advance, and in fact was a genuine trial-and-error process, given that the hotel staff knew little about integration and innovation at first. As internal resources were insufficient to solve the issues, an integration of external industries and enterprises took place. This is similar to what has been suggested by the research (Edvardsson, Haglund & Mattson, 1995; Ettlie & Rosenthal, 2011; Fuglsang, Sundbo & Sørensen, 2011; Martin & Horne, 1993), indicating that service innovation is driven by responding to market opportunities and customer dissatisfaction. It was not until after commercialization that the system was viewed as an improvement and a result of service innovation (Nardelli, 2017).

6.2 Push Factors: Satisfying the Market Demand and Interaction of Partners in Service Convergence Innovation

As a dominant driver guiding the process of service convergence innovation, the Nansha Grand Hotel triggered innovation when it tried to solve the inefficient internal operational issues, and introduced as a partner an IT company that was willing to take
part in this innovative process. The IT company found that there was a market demand for hotels wanting to improve their internal operational efficiency and a paucity of solutions available to solve hotel administrative system issues.

Fuglsang, Sundbo and Sørensen (2011) and Matthing, Sandén and Edvardsson (2004) discuss interactive innovation based on the structured innovation practice-driven model. This was a breakthrough, which diverged from the original one-way service innovation process, instead emphasizing the need for external inputs. However these researchers only stress the involvement of customers. Chae (2012) defines service innovation as an evolving process including multiple innovations in which customers participated, and describes the driving force of innovation as interactive, local, multi-dimensional, unpredictable and emergent. The service convergence innovation was first launched and implemented by the Nansha Grand Hotel. In the process, though, the external participant – the IT company – become a crucial factor in the success of implementing this hotel management system. Previous research on service convergence innovation has paid little attention to this aspect.

6.3 The Cross-border Background and Trans-boundary Thinking of Leaders: Two Prerequisites to Adopting Service Convergence

Mr Yang’s trans-boundary working background helped him to understand issues of development and the needs of different industries, enabling him to apply the prerequisites of expanding markets and develop service convergence products that could satisfy needs of various industries. Years of teaching and research work in the field of hospitality and working experience within the hotel industry helped him to pinpoint the drawbacks of training hospitality and tourism management personnel from the perspective of an enterprise. On that basis, he was able to develop a training system that would integrate education and industry experience with convergence innovation.

6.4 Adopting Interdisciplinary Methods and Technical Means as Important Driving Forces of Promoting Service Convergence Innovation

In order to develop management information systems that could transform service processes, services operations and even service experiences into storable, executable
or touchable forms, the Nansha Grand Hotel not only needed to use the management approaches of service management, hotel management and other disciplines, but also had to utilize information management and information technology science for service convergence innovation, through the integration of interdisciplinary knowledge and technological means of integration.

6.5 The Operating Mechanism Developed Jointly by individual and Enterprise Fosters Learning Staff and Promotes Service Convergence Innovation

When the General Manager led the whole team to develop an operational management information system for the entire hotel, it was necessary to quantify, encrypt and store the individual tasks carried out by various departments. This was an enormous undertaking because it not only involved the tasks of employees, but also included optimizing staff management. It was also essential to transform previous intangible experiences into standardized visual system materials.

Some employees resisted the process of transformation in the initial stages because it resulted in increased workloads and required them to have strong learning capabilities. However, after the general manager understood the dilemmas and concerns of employees, he began to adopt a scoring incentive mechanism, which connected the successful achievement of tasks with performance and promotion by means of scoring through learning and evaluations. Mr Yang encouraged staff with higher seniority to become practical teachers in colleges and universities, and hospitality industry consulting experts, by cooperating with external universities. These strategies brought a positive flavour to the development of the enterprise and the continuous self-growth of employees. Nardelli (2017) proposes in the dialectics of service innovation that tensions or conflicts between different interest groups are intrinsic factors of service innovation, and the driving force behind service innovation. When the Nansha Grand Hotel found a balance between the personal development of employees and hotel business development benefits, it fostered staff to learn and also promoted the continuous progress of service convergence innovation.
6.6 Support from the Board of Directors: An Important Guarantee of Promoting Service Convergence Innovation

From the start, the establishment of the Nansha Grand Hotel was based on building an upscale hotel that could be managed by Chinese people and exploring a hotel management model that would suit China’s conditions. In order to uphold the ambition of the founder, the board of directors always encouraged and supported the general manager’s management team in exploring a Chinese-style hotel management model.

When Mr Yang began to work together with external enterprises to solve internal issues within the Nansha Grand Hotel, he received unequivocal support from the board of directors. Moreover, when the preliminary program of management information systems was tabled, the board of directors encouraged Mr Yang’s team to establish a hotel management education institution to further expand the education industry of hospitality management and to better realize the founder’s vision. It is obvious from the entire process of service convergence innovation at the Nansha Grand Hotel that support from the board of directors was extremely important in guaranteeing the success of service convergence innovation.

7 Conclusion and implications

With the service industry possessing an increasingly important position in the economy, industrial convergence is occurring more frequently within the service industries, and has become the main form of industrial innovation.

This case study of service convergence innovation focused on an upscale hotel. It uncovered a ‘black box’ that has previously been taken for granted by business entities when implementing service convergence innovation, and that has not previously been addressed in the literature. This article has adopted a narrative inquiry method to analyse the Nansha Grand Hotel’s service convergence innovation process and the context of its service integration innovation process. By representing this unique experience, it has demonstrated a deeper understanding of, and provided greater insights into, the thoughts of innovators, as well as exploring the underlying layers of the service convergence process (Rae, 2004; Steyaert, 1997). In this study,
the narrative story concerning the whiteboard from the Engineering Department in the Nansha Grand Hotel illustrated a series of incremental innovations triggered by hotel management issues and an accumulative process from changes on a small scale towards a transformative service innovation. The overriding management implication of the narrative is not to seek radical innovation such as invention of a lightbulb; rather, it is to pay attention to unusual details of everyday events through work and life practices, and to devote effort towards the convergence of existing technology and services to produce new applications or reinterpret things in a different way, thereby creating new methods of conducting business. This kind of innovation is especially applicable to service innovation.

As an example, the emergence of the iPhone represented more than just another communication device. It was the result of a convergence of conventional cellular phones, cameras, computers and internet applications. The iPhone is an all-in-one substitute based on a new form of mobile intelligence that has caused a blurring of boundaries among the various independent industries. Based on this, hotel service providers can provide a service convergent innovation product that integrates conventional lodging services, training services, management and business consulting services and human resource management into one service entity.

Second, the success and continuous progress of the service convergence innovation process depends strongly not only on driving forces and innovative leaders, but also on participation and interactions between internal and external business enterprises. The investigation of the service convergence innovation process at the Nansha Grand Hotel has shown that service convergence innovation began with top level management’s sense of problem-solving, which then triggered a series of changes from the top to the bottom. This continuous progress was fuelled by relevant motivating mechanisms and both tangible and intangible incentives, which then stimulated the enthusiasm of front-line employees and middle managers. This has resulted in bottom-to-top service innovation and has ensured continuous progress.

Furthermore, service convergence innovation augments the need to engage with external enterprises in order to supplement necessary technological knowledge. This helps to meet the needs and functions of service efficiency that a company may lack.

The case study of the Nansha Grand Hotel showed that the IT company chosen
as a partner had technological knowledge in information management systems but lacked hotel industry experience, while the Nansha Grand Hotel had plenty of hotel industry experience but lacked knowledge in information management systems. Therefore, the two companies collaborated to establish a comprehensive hotel management information system. This win–win collaboration escalated the scope of service convergence innovation within the Nansha Grand Hotel.

7.1 Theoretical implication

Following indicate the theoretical contributions made by this study. Theoretically, the concept of service convergence innovation has been put forward in this paper, and we unveil the black box of service convergence innovation by providing vivid and on sight observation which illustrated its progress and developmental stages. Traditional innovation research focuses on radical innovation that is brought about by technological breakthroughs or technological convergence innovation; it emphasizes the importance of destructive technologies and revolutionary products. There is a focus on seeking initiators and leaders of service convergence innovation. Nevertheless, the process of radical innovation is tough, as Sahal (1985) points out. Radical innovation occurs mainly due to the presence of an opportunity, which reflects the random nature of the radical innovation process. The technological innovation breakthrough is therefore regarded as a combination of luck, opportunity, talented skills and science, which makes it very unpredictable. Further, this study depicts an anatomy of service convergence innovation through intra- and inter- operational divisions, inter-organizations and then elaborates how creativity and innovation are emerged. The momentum to trigger, push, maintain and reinfuse service convergence and lead to innovation are detailed as well. Furthermore, the employment of narrative inquiry makes micro as well as meso level analysis well conducted in this paper has contributed to methodological breakthrough in the field of service convergence research.

7.1 Managerial implication

This article contributes to the implications and aspirations of how a conventional hotel or other service providers can implement innovation and develop
sustainability through service convergence innovation with relevant businesses. First, service convergence innovation stemmed from the focus and explorations of daily service providers and management practices, along with the gradual accumulation of several continuous innovations, thus creating new business opportunities and reshaping the pattern of the service industry. Empirically, the in-site case of Nansha Grand Hotel provides an insightful ground for hospitality business professionals to learn the way for creation and service innovation. According to the results of this study, internal customers’ dissatisfaction, departments’ problems or lack of efficiency issues are important trigger of service convergence innovation and are the most important creative sources of service convergence innovation. Embracing trans-boundary information along with encouragement of various industries interactions would foster fruitful knowledge reservoir for latent service convergence stimulus. Further, the illustrations on the factors as well as contexts to foster service convergence practices are conveyed in this paper could facilitate managerial endeavors by hospitality business professionals. Appropriate incentive mechanisms which leverage as well as motivate partnership endeavors should be the core aligning individuals and organization goal instead of imposing regulative order.

In summary, the success and continuous progress of the service convergence innovation process depends on the participation and interactions of internal and external business collaborators. When dealing with internal collaborators, the initial top-to-bottom driving force needs to be transformed into an effective mechanism for triggering the participation and enthusiasm of employees. This can then drive convergence innovation from bottom to top. In terms of dealing with external collaborators, it is crucial to converge with relevant cross-boundary enterprises and establish an external relationship that constitutes mutual win–win benefits.

References


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