

The Career Pathways and Roles of In-house Designers in the Services Sector in Singapore: A Pilot Interview Study

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A growing number of the services sector organisations like banks and hospitals in Singapore are building their own in-house design teams, and as a result, there is an increasing demand for designers to work in these teams. However, there is a lack of career clarity with regards to the job scope, required skills and career pathways for these so-called in-house designers. This paper introduces a pilot study conducted to seek out some missing information from the narrative accounts of practicing in-house designers from different services sector organisations in Singapore. In our findings, the in-house designers can play a greater role in services sector organisations than a “*Form-giving Designer*” that primarily focuses on the styling of products and services. The in-house designers could take on the role of a “*Process Designer*” to facilitate and train other departments and staff within the organisation in design methodologies and practices. They could also play the role of a “*Strategy Designer*” to help the management and other stakeholders to better understand the value of design with measurable data and support the organisation in engaging design as a key organisational strategy. The intent of this paper is to expound on the different roles and career pathways of an in-house designer in the services sectors, as well as identifying some of the skills required for designers to succeed in such roles and career pathways.

Keywords: *design; Singapore; services sector; in-house designers; career; skills; education*

1 Introduction

The “*Design Integrator*” is an archetype of the role of a designer proposed by the national agency for design in Singapore, the DesignSingapore Council (Dsg). It represents “*designers working in in-house design and innovation teams. They can facilitate organisational innovation. They embed innovation and develop holistic customer experience across business units in the company*” (DesignSingapore Council, 2018). This type of designers, who are more commonly referred as “*in-house designers*”, is on the rise in Singapore as more services sector organisations are adopting design as one of their innovation tools and trying to build their in-house design capabilities (Ibrahim, 2017). One such example is the Development Bank of Singapore Limited (DBS). The Managing Director of User Experience & Design, Wongwattanasilpa (2018) explains that “*In 2013, DBS*

engaged a design agency to revamp their internet banking and public website. During the process, a few senior leaders in the Consumer Banking Group realized that design is a competitive strength. To keep the momentum going, they decided to build an in-house design team.” Similar observations have been made across various types of services sector organisations, such as public services, healthcare services, and food and beverage services.

This trend has been prevalingly observed in the services sector in Singapore, where an in-house design team is relatively new compared to the manufacturing sector. Since 1986, Singapore has moved towards the development of the services sector on top of its mainstream manufacturing sectors (Singapore Economic Development Board, 2011). The importance of the services sector has increased because of two primary factors. Firstly, studies showed that the services sector in Singapore is a more stable source of growth for the economy compared to the manufacturing sector, especially during periods of economic downturn. Secondly, the services sector accounted for the bulk of jobs created in Singapore, and the average wage in the services sectors is higher than those in the manufacturing sector (Monetary Authority of Singapore Economics Department, 1998). The better job opportunities and job stability together with a higher wage also became pull factors for designers to find employment in the services sector instead.

However, services sector organisations in Singapore are still facing difficulties in finding designers to join them, as there is a lack of information with regards to the job scope, required skills and career pathways for these in-house designers in the services sector organisations. The Head of Experience Design in Oversea-Chinese Banking Corporation Limited (OCBC) bank once shared in a local newspaper that, *“When I started in 2010, there was no team. It took a while to build it because it was not a common thing ... When you try to find other designers to join a bank, it’s very challenging because it’s not something on their career path.”* (Boon, 2016)

In this paper, we seek to find the missing information through the narrative account of practicing in-house designers from different services sector organisations in Singapore. This paper introduces a pilot interview research that examines the following three questions:

1. What are the career pathways for designers in the services sector in Singapore?
2. What are the skills required for such designers to succeed in their roles?
3. What are the elements that the design schools in Singapore could strengthen to develop more designers for the services sectors?

2 Expert Interviews

The research method selected for this study is an expert interview. Littig (2011) describes an expert interview as *“a semistandardised interview by one or more interviewers with a person identified as a so-called expert and serves to generate data in a research context”*, and the experts need to have *“(a) specialist professional or technical knowledge ... (b) knowledge of organisational procedures and processes ... (c) interpretative and background knowledge (“know-how” and “know-why”) in their particular field.”* Five interviews had been conducted in

this pilot study. At the point of interviews, the five designers are working in a design team housed within different services sector organisations in Singapore. They are regarded as experts, as they possess the knowledge about the career as an in-house designer as well as the organisational procedures and processes within the services sector in Singapore. All interviewees have working experiences in other types of industries before joining the services sector, which helps them to articulate their experiences in the services sector organisations in comparison to their previous working experiences. In addition, they have all gone through a minimum of three years of industrial design education and thus possess sufficient background understanding about the design education in Singapore. The five designers are also intentionally selected from different types of services within the services sector to ensure that the data collected are unbiased and not specific to a type of services (as shown in Table 1).

Table 1 Profiles of the expert interviewees.

	Current position	Working experiences	Education
Expert Interviewee 1	An in-house designer in financial services	13 years (about 4 years in the services sector)	Diploma in industrial design (3 years of industrial design education)
Expert Interviewee 2	An in-house designer in public services	7 years (about 4 years in the services sector)	Bachelor's design in industrial design (4 years of industrial design education)
Expert Interviewee 3	An in-house designer in healthcare services	6 years (about 4 years in the services sector)	Bachelor's design in industrial design (4 years of industrial design education)
Expert Interviewee 4	An in-house designer in food & beverage services	11 years (about 2 years in the services sector)	Diploma in industrial design (3 years of industrial design education)
Expert Interviewee 5	An in-house designer in e-commerce services	10 years (about 3 years in the services sector)	Bachelor's design in industrial design (4 years of industrial design education)

The expert interviews were conducted as a semi-structured interview, focusing on the following main questions:

- Can you share more about the scope of works for the in-house design team and how does the team contribute to the organisation?
- How is the career progression for the in-house designer like in your organisation?
- Can you share more specifically with regards to your own job scope in this in-house design team or organisation?
- What skills are critical for an in-house designer career like yours?
- Has your own design education prepared you to work in an organisation like this?
- Do you have any recommendation on how the design education could improve to ensure the graduates are more ready to work in the services sector?

All interviews were conducted face-to-face, one interviewer with one expert each time. Each interview typically lasted around forty-five minutes and was voice-recorded. No body languages or gestures were taken into account. The voice recordings were subsequently transcribed for data analysis. Thematic analysis is selected as the method used for analysing the interview voice recording transcripts. Ayres (2008) describes thematic analysis as “a data reduction and analysis strategy by which qualitative data are segmented, categorized, summarized, and reconstructed in a way that captures the important concepts within the data set. The thematic analysis is primarily a descriptive strategy that facilitates the search for patterns of experience with a qualitative data set; the product of a thematic analysis is a description of those patterns and the overarching design that unites them.” We followed the thematic analysis process introduced by Braun and Clarke (2006). The transcribed data were read several times before codes were generated. Any text segment that relates explicitly or implicitly to the research questions was captured. The codes were collated and categorised into themes, which will describe more in detail in the following section.

3 Findings

3.1 Three types of career pathways for in-house designer in different services sector organisations

From the analysis, we found three possible career pathways for designers working in the in-house design team of services sector organisations in Singapore:

1. “*Designer*” career pathway
2. “*Executive*” career pathway
3. “*Trainer*” career pathway

Firstly, there is a “*Designer*” career pathway, where a designer could advance to a senior designer, to a lead designer, and then possibly to a head of design position. Interviewee 1 from a financial services organisation and Interviewee 4 from a food & beverage services organisation shared that this career pathway is very much similar to the career pathway of designers in design firms. Next, there is an “*Executive*” career pathway, where a designer on this career pathway typically starts off as a management executive and will have the opportunity to be promoted to an assistant manager, to a manager, to an assistant director, to a deputy director, and to a director. This career pathway is common in public services and healthcare services organisations. Lastly, there is a “*Trainer*” career pathway for some in-house designers in the financial services and healthcare services organisations. Designers on this career pathway are regarded as trainers, specialists or consultants with the expertise of design methodologies and practices for internal employees and external partners.

The study found that the different types of career pathways in different services sector organisations are mostly due to the existing career progression structure in organisations, and the differences in career pathways do not suggest differences in job scope. For instance, Interviewee 4, who is on the “*Designer*” career pathway, shares a very similar job scope with

Interviewee 2, who is on the “*Executive*” career pathway. Project management plays a big part of the job scope for these two interviewees. Furthermore, it is found that in some organisations, for example in the healthcare services, there could have two potential career pathways for the in-house designers: “*Executive*” and “*Trainer*”. Interviewee 3 revealed that he started off from a management executive position while his colleague started as a consultant in human factors, even though both of them are in-house designers working in the same healthcare services organisation.

There are also opposing views with regards to the importance of having a title of a designer. For example, Interviewee 3 shared that having a title of a management executive; it dilutes the specialised expertise of designers and blends them with the general administrative roles. This does not help those who want to build their career as a designer. In contrast, Interviewee 4 appreciates being situated in the “*Executive*” pathway, as it allows him to play a more strategic role instead of being limiting to design projects.

3.2 The different job roles of in-house designers in the organisation’s transformation journey

A common theme identified through the interviews is many in-house design teams undergo various transformations in every two to three years. The transformations at times also change the role of the designers. It was observed that the changes are very aligned with “*The Design Ladder*” created by Danish Design Centre (2015). “*The Design Ladder*” highlights four incremental steps of organisation’s adoption of design:

- Step 1: Non-design (Design is not applied systematically)
- Step 2: Design as form-giving (Design is used as finish, form-giving or styling in new products or services)
- Step 3: Design as process (Design is an integrated element in development processes)
- Step 4: Design as strategy (Design is a key strategic element in the business model)

Many in-house design teams are initially formed at “*Step 2: Design as form-giving*” and the role of the in-house designers is primarily in designing forms, such as the styling and finish of new products or services. Subsequently, the role of the in-house designers evolves to designing processes and then designing strategies, as the organisation moves up the ladder in the adoption of design. Wongwattanasilpa (2018) adapted the User Experience (UX) Maturity Model by Feijó (2010) to illustrate how his organisation, DBS, has transformed within the four years since the in-house design team was formed:

- Level 1: Unrecognized (UX is ‘not important’)
- Level 2: Interested (UX is important but receives little funding)
- Level 3: Invested (UX is very important and formalized programs emerge)
- Level 4: Committed (UX is critical and executives are actively involved)
- Level 5: Engaged (UX is one of the core tenets of the organisation’s strategy)
- Level 6: Embedded (UX is in the fabric of the organisation; not discussed separately)

In 2014, DBS’s in-house design team was formed as the organisation became interested in design (i.e. “*Level 2: Interested*”). The design team comprises of merely two designers back then. In 2018, DBS has transformed and became committed to design (i.e. “*Level 4: Committed*”), and the in-house design team has grown to a size of fifty designers.

We mapped the interview findings around the two aforementioned models. The mapping led us to develop an expanded framework on the organisation’ design adoption levels and the roles of the in-house designers (as shown in Table 2). The expanded framework features more levels compared to the UX Maturity Model, as the research revealed that there are more incremental steps. For example, many organisations usually engage the services of design consultancy or design interns before moving from “*Level 1: Unrecognized*” to “*Level 2: Interested*”. More importantly, the intent of expanded framework is to explain how the role of in-house designers in the services sector organisation evolves from a “*Form-giving Designer*” to a “*Process Designer*” and then a “*Strategy Designer*” as the organisation moves up the levels of design adoption as described by “*The Design Ladder*”.

Table 2 Organisation’s design adoption levels and the roles of designers

Level	Design Adoption	Role of designer
1	Awareness (The organisation gets to know about design but remains uncertain to take any course of action.)	
2	Curiosity (The organisation gets curious about design and engages the services of design consultancies or design interns.)	Form-giving Designer
3	Interest (The organisation gets interested in design and forms a small in-house design team.)	
4	Infatuation (The organisation grows fond of design and aspires to expand the design team.)	
5	Connection (The organisation connects the design team with the other department staff.)	
6	Enlightenment (The organisation wants formal trainings for other department staff to be knowledgeable about design.)	Process Designer
7	Commitment (The organisation gets committed to design and desires it to be actively practiced.)	
8	Engagement (The organisation gets serious about design and it becomes a key organisational strategy.)	
9	Marriage (The organisation gets inseparable with design; design is inherent in the organisation’s identity.)	Strategy Designer

3.2.1 Job Roles for the “*Form-giving Designer*”

Typically, the in-house design team is formed at “*Level 3: Interest*”, after the organisation recognizes the value-added benefits of design after working with a design consultancy or hiring interns from the local design schools. The size of the in-house design team at this level is very small, usually just one to two men. The team can still be working alongside with the design consultancy that the organisation had engaged earlier. The role of the in-house designers at this level mainly focuses on “*form-giving*” (or styling of products and services, according to in ‘*The Design Ladder*’). For example, Interviewee 1 and 5 shared how their in-house designers are involved in designing the “*look and feel*” of the websites and mobile applications for their respective organisation, while Interviewee 4 shared that his job role used to be more focused on aesthetics of packaging.

According to our interview findings, the design team at the starting stage is also not well funded and not well equipped. In some cases, they do not even have access to professional design software like Adobe Photoshop and Computer-Aided Design (CAD) software like Rhinoceros. They have to utilise common office software like Microsoft PowerPoint instead. This often posts challenges to the in-house designers, as they were not taught how to do design works with common office software during their design education.

After about two to three years, the in-house design team would likely have completed a number of projects and gained significant recognition for their contributions to the organisation. The organisation would want to expand the team then (i.e. “*Level 4: Infatuation*”). Other than investing more money for new hires, some organisations would bring in other employees or other departments within the organisation, such as data analysts or the marketing department, to join the in-house design team. This is the point that many in-house design teams turn multidisciplinary, and the in-house designers need to learn to work closely with colleagues from other disciplines. For example, Interviewee 4 shared that his in-house design team used to comprise of only designers doing packaging design. This continued until the organisation added the consumer insights team and the sensorial team to form a larger in-house design team. The team was then transformed to comprise of mostly professionals from the science disciplines. Many of the interviewees shared that they did not have prior experience working in a multidisciplinary environment before joining the in-house design team, and they were not trained to work with people of different disciplinary during their days in design schools. Hence, they see multidisciplinary collaboration as an important skill from in-house designers.

3.2.2 Job Roles for the “*Process Designer*”

When the multidisciplinary in-house design team becomes more cohesive, the organisation often tasks the team to reach out to engage with the other departments and staffs (i.e. “*Level 5: Connection*”). This is a constructive change for the in-house design team, as the role of the designer begins to shift from a “*Form-giving Designer*” towards a “*Process Designer*”. Interviewee 3 revealed that the in-house design team facilitates teams of doctors and nurses in innovation projects to improve quality management. Interviewee 4 shared that besides doing packaging design, the other part of his job scope is to assist in design workshops. His

team manager will lead the workshops, while he will assist in sketching the design concepts, as many of workshop participants are from the business discipline and may not know how to draw out the concepts they have come out with. Interviewee 2 also revealed that his team is at the stage of doing both designing and facilitating projects. Facilitation is, therefore, a key skill for the in-house designers to play the role of a “*Process Designer*”.

Apart from having facilitation skill, the organisation can progress to take the in-house design team to develop training programs to educate the other departments and staff (i.e. “*Level 6: Enlightenment*”). At the point of the interviews, Interviewee 5 revealed that his team is undergoing this stage of transformation. He expressed that it has been challenging as none within his team has prior experiences in developing training programs. Hence, they have recently hired a former design educator to develop and teach design approaches to the other staff within the e-commerce services organisation. Interviewee 2 and Interviewee 3 also revealed that their teams have engaged former educators from the local design schools to support in this transformation.

3.2.3 Job Roles for the “*Strategy Designer*”

Not many services sector organisations in Singapore have reached “*Level 7: Commitment*”, where the organisations are committed to design and desire it to be actively practiced. Even lesser organisations have reached “*Level 8: Engagement*” and “*Level 9: Marriage*”, whereby the organisations acknowledge the importance of design and make a deliberate decision to incorporate design into one of their key organisational strategies. This often requires the organisation to include the head of the in-house design team into the organisation’s top management team. Interviewee 5 shared that in his previous company, which is a multinational information technology services organisation, the head of his design team sits in the top management meetings. He thinks that this is a very important milestone, as prior to this, the top management would make new organisational strategies first, and thereafter informs the in-house design team. However, when the head of the in-house design team becomes part of the top management team, he gets to provide input on how design can be applied in the organisation at a strategic level. This is also when the role of designer shift becomes a “*Strategy Designer*”.

The study shows that the skills required for the in-house designers in the founding years of the design team are primarily in “*form-giving*”. As the in-house design team expands to include professionals from other disciplines, designers will need a “*multidisciplinary collaborative skill*”. When the organisation wants a higher level of design adoption, the in-house designers will need to “*facilitate and train*” other departments and staff with design methodologies and practices. Subsequently, when design becomes embedded into the organisation’s identity, as a head of the in-house design team, the designer may require skills to “*introduce design at a strategic level*”.

4 Discussion

From this research, three roles of the in-house designer are identified. Designers in the Singapore services sector could potentially take on, a *“Form-giving Designer”*, a *“Process Designer”*, and a *“Strategy Designer”*. The *“Form-giving Designer”* refers to designers with a primary job scope in design execution. Brown and Katz (2009) describe this type of in-house designers as *“designers who are skilled technicians, craftsmen, or researchers... They may play a valuable role, but they are destined to live in the downstream world of design execution.”* Even though, the education of *“form-giving”* (the styling of new products and services) helps designers to play a valuable role in the in-house design team as a *“Form-giving Designer”*, but it may confine them to the job scope of design execution. The required skills for *“Form-giving Designer”* are what have been conventionally known as design skills, which the design education has focused on. With the emergence of in-house designers in the services sector, we argue that the required skills for a *“Process Designer”* and a *“Strategy Designer”* are areas of consideration for the design education to incorporate in their programmes.

The *“Process Designer”* refers to designers who are able to facilitate and train other departments and staff within the organisation in the design methodologies and practices. Tan (2012) in her doctoral thesis put this type of designers in three categories: *“Designer as Co-creator”*, *“Designer as Facilitator”* and *“Design as Capability Builder”*. Tan describes, *“The value of the designer as co-creator is where the designer adapts the use of the design process and tools and to permit the participation of people who are not professionally trained in design.”* For *“Designer as Facilitator”*, Tan explained that *“Designers can adopt a facilitation role as process experts to lead sessions where a design methodology is appropriate...The importance of the designers leading the process is because design can be unfamiliar and ambiguous process to many partners...”* and *“The designer as capability builder introduces to business the design process and its methods.”* This skill in adapting design processes to facilitate and teach other staffs within the organisation who are not professionally trained in design and unfamiliar with design process is vital for the in-house designers to perform the role of a *“Process Designer”*. Napier and Wada (2015) termed this new emerging design skillset as *“design facilitation”*, and it refers to *“the ability to develop the mindset, skills and characteristics – along with utilizing processes, process tools, method and planning framework – in order to effectively facilitate others through creative, collaborative problem-solving.”*

Napier and Wada (2015) also pointed out that, *“In order to adequately prepare emerging designers to take on this role of design facilitator, design education today must consider a much more holistic approach in preparing students for the complex contests that they will soon find themselves. Design educators today not only need to provide students with working knowledge of design process and tools, they must also build a value-system for participatory, human-centered design, which enables the student to develop the appropriate skills and characteristics necessary for leading others through the design process, utilizing designerly methods and tools.”* Many of the interviewees stated facilitation as an important skill for the job scope of an in-house designer in the services sector. Interviewee 2, who is in the public services sector, put facilitation as the number one required skill. But he questioned

why facilitation is not taught in design schools. It could be due to the current design education in Singapore has yet to acknowledge design facilitation as an emerging design skill, and therefore it is not formally taught in the design schools. Or perhaps, like Tan (2010) has pointed out, it could be that even though the role of the designer as facilitator is commonly acknowledged, there is limited literature that elaborates on this role and its practices. Regardless the causes, it is important to note that this design facilitation skill is currently being self-taught on the job, which may have led to the in-house designers feeling inadequate or unprepared for a career as a “*Process Designer*”.

Doherty, Wrigley, Matthews and Bucolo (2015) share that there are two stepping-stones that an organisation needs to undergo in order to reach the top level of “*The Design Ladder*” to apply design at a strategic level. They term the first stepping-stone as “*Design as Relationships*”, whereby the organisation recognises “*design as a way to create value through meaningful relationships with stakeholders in the business’s value chain*” or “*the notion that design could assist customer rapport*”. The second stepping-stone is “*Design as Management*” that the organisation understands the value that design can provide from a managerial level and becoming holistically design-led.

Holsten (2011) shares that, “*the ability to collaborate, manage the increasing complexity of design problems, to design ‘in context’ to their target audiences, and to be accountable for design decisions through measurement transforms designers from ‘makers of things’ to ‘design strategists’.*” He highlights that designers need to know how to use business tools, like competitive and situational analysis, to help them better understand the business environment in order to develop more strategic solutions. He also emphasise about designers being able to communicate the value of design, especially in terms the return on investment like sales number or customer satisfaction. As none of the in-house designers in the expert interviews is currently playing the role of a “*Strategy Designer*”, so their inputs are based their perspective of the job scope and required skills of their head of design team. However, together with the literature findings, a common theme is identified that a “*Strategy Designer*” will need the ability to communicate the value of design with measurable data to the organisation management and other key stakeholders, in order to bring design to be applied at a strategic level.

5 Conclusion and further research

This research is only a pilot study based on a limited amount of data drawn from the interviews with five in-house designers working in the Singapore Services Sectors. Further work needs to be conducted to identify more potential career pathways, jobs roles and skills required for in-house designers in the services sectors through a more in-depth research study with a bigger pool of interviewees.

The pilot interview study shows that the skills required of the designers working in the services sector are definitely not confined to design execution as a “*Form-giving Designer*”.

Further conversations with design educators on the emerging design skills, such as design facilitation skill for a “*Process Designer*” and the ability to communicate the value of design with data for a “*Strategy Designer*”, could lead to a better understanding and exploration on its implications to the design education as well.

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