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Educating the future generation of service innovators in emerging markets: A tale from the land of 100000 lakes

Marco Ferruzca¹, Päivi J. Tossavainen² & Virpi Kaartti³

¹Universidad Autónoma Metropolitana, ^{2,3}Laurea University of Applied Sciences

This paper highlights the role of Higher Educations Institutions in educating the future generation of service innovators and their potential contribution to the service industry growth in emerging economies. In this study, first a global view of service innovation programs in HEIs shows the progress of service innovation education. Second, a single case of service innovation program in the land of 100,000 lakes is presented. This case serves as a trigger to consider how to embed service innovation education in emergent economies to strengthen their future innovation capabilities. The study suggests that educational transformations need to take place for this purpose.

1. Introduction

The role of higher education institutions (HEIs) is pivotal, because they are always been an important part in transforming the society. HEIs educate the future generations of professionals. They often develop the pedagogical approaches and aim to include the latest findings revealed through the execution of research. Further, HEIs apply research findings into practice in both working life and in their education programs. Recently, the role of HEIs was specified also to enable graduates from various disciplines to become T-shaped professionals or adaptive innovators (see for example (Bishop et al. 2008; IfM and IBM 2008; Spohrer et al. 2010))

HEIs reach out the society around them; whether it is business organisations, public sector or non-profit organisations. A rich research tradition of university – industry (U/I) relationships testifies this. Identified is for example the interaction with working life; the activities, the benefits and the barriers of the interaction, the implications, and the relationships between universities and industry in various disciplines (Deschamps et al. 2013; Harryson et al. 2007; Jongbloed et al. 2008; Walsh et al. 1997). Moreover, many scholars (Britto et al. 2013; Deschamps et al. 2013) document that the initiatives for collaboration exist around the world. Yet, scarce are investigations how these relationships influence on the curriculum development of HEIs.

In HEIs education– on both Bachelor and Master level – the focus of the studies is to solve a wide variety of complex problems and challenges. For this, the students need to learn novel skills. Moreover, similarly the teachers need to continuously learn themselves new skills, use them and educate them to students. This is because the new capabilities related to service innovation (SI) are not necessarily evolved within firms and the lack of needed know-how reduces service research impacts in society (Tossavainen 2012b).

The purpose of this paper is to explore opportunities the HEIs have in shaping their education programs and curriculum based on the latest changes in business discipline. As the change to service economy is ongoing, service innovation is moving ahead. Thus, HEIs need to be able to educate future professionals that fit better in changing economy and contribute the growth of the society.

Service-oriented research has brought a wide variety of new knowledge and theoretical proposals. As such, in the last decade, it has acquired its place in marketing and

management literature. While it is an evolving discipline, many programs remain on conceptual level. Innovation capability, development skills, and productivity knowledge have become a global challenge. As an emerging discipline, the service research can be examined from strategic, development, or execution levels (Ostrom et al. 2010). Furthermore, service innovation, service development and service design has been identified as interrelated concepts.

To simplify the conceptual variation, we use the term service innovation in this paper. It entails the service innovation, service development and service design approaches. We argue that incorporating service design approach into service development will enable service innovation. Therefore, the focus of analysis has been on exploring the service design as a new approach in HEIs.

Service innovation is related to the change from industrial logic to service logic. While majority of the business organisations still apply the industrial logic many, new firms and industries (besides the traditional service sector) have chosen the service logic as the business logic. This understanding and change needs to be embedded in degree programs in order to support the ongoing transformation of the society. If HEIs do not actively react on this education challenge, other actors like consultancy firms will move in full speed into this sector. However, their work often lacks on pedagogical approaches or academic research with theoretical and practical contributions. Consultancy companies do not educate future professionals.

To work collaboratively in service innovation requires new mind set, competences and skills. In future, the collaboration of customers and other stakeholders in order to develop and innovate service is expected (Frow and Payne 2011; Segelström 2013; Tossavainen 2013).The ability to integrate and collaborate with various stakeholder

groups such as customers, users, suppliers, subcontractors, state or municipal officials, authorities, other professional groups, and the firm's own employees from various expertise areas can be achieved (Tossavainen 2016). But this requires new skills and competences among them service design.

In order to achieve service innovation, multiple stakeholders work collaboratively and co-create together service that fits the needs of the customers and business criteria of the service providers. The holistic approach considers in an integrated way strategic, system, process and touchpoint design decisions that require interdisciplinary approaches and methods in ever-learning cycles (Tossavainen and Kaartti 2015). Therefore, with SI the different theoretical logics and constructions alongside the practical methods, tools and techniques, the act of balancing theory and practice remains within the professional educators.

The paper continues with the following: First, a global view of service innovation programs in HEI is presented in order to see the development progress of service innovation education offering. Then a collection of courses and service design map are presented. This analysis highlights the opportunity to compete thru the disruptive educational experiences also in emerging countries. Second, a single case of the pioneering Master's degree program in service innovation is presented. Finland, the land of 100,000 lakes, has a good international reputation in education in general and especially in the service domain. The tale that includes experiences from Laurea University of Applied Sciences. Third, we analyse the findings and suggest considerations for HEIs to develop their curriculum. Finally, conclusions are drawn and future research directions are offered.

2. The global view on service related programs

Service innovation and service design has grown considerably as an economic activity. Variety of service related programs have emerged into higher education, to prepare future professionals with new competences. This includes capabilities to guide innovation by fostering the co-creation of value with users and to design the best experiences with customers alongside with generating a good return on their investment. For example, Tossavainen (2012b) explains the service capabilities as the function of service logic adoption and the use of service driven methods that include a combination of service development and service design methods and techniques. Therefore, the programs need to include the theoretical background for understanding why to use variety of methods.

As with any industry, new degree programs are established around the fresh topic. Yet, there is little analysis of the content of those new programs. A search was conducted in academic journals for this kind of studies but any publications in the last five years (2011-2015) were not found (Ferruzca et al. 2016). A study of Robert's (2015) reveals that the higher education curriculum - in general - is shaped by academics' beliefs about educational and contextual influences. Five orientations to curriculum design were identified which provide insights into the influences which shape curriculum and teaching practices, and how they respond to the educational change. These are discipline-based orientation, professional and academic orientation, personal relevance orientation, social relevance – reform orientation, and systems design orientation

This chapter explores the progress of the emergence of programs related to service innovation in the higher education. The analysis covers three sources of information:

Top 50 universities, a list of syllabi published by a service research community and an open service design world map.

2.1. Top 50 universities

Within the analysis of the Top 50 universities, in which 13 meet our selection criteria, 30 service design programs are offered. We provide an international comparative analysis based on the type of the program and its curriculum content. We looked for those service innovation programs that have service design as a contributor in the curriculum

To select the HEIs, the Times Higher Education World University Rankings 2015-2016 (Times Higher Education) for the top 50 universities were analysed. This ranking allows identifying, from an academic point of view, the service design programs offered leading universities. Then the web site for each of the 50 universities were examined to identify service related programs. Thirdly, the program description; curriculum was reviewed.

In order to categorize the competences of the curriculum, a matrix was developed (Ferruzca et al. 2016). The competences were business competence in service innovation and service design competence. The exploratory review of top 50 universities revealed that 13 of them offer 30 programs to approach to service design. 7 are offered as executive programs, 10 are related to undergraduate programs and 13 are part of graduate programs.

The findings of this study indicate that some of the fifty best global universities (26%) offer a service design program. Most of them are **part of** master's degree programs in several domains like design, business, information systems, information and

knowledge management, manufacturing and human computer interaction. Just a few programs are **completely focused** in service design. This was the case of executive programs.

Also, the most popular topics of study covered in curriculum are those related to user-centric service design and managing the business service. However, only 2 service design programs seem to cover all the areas of expertise services designers and developers need.

Finally, most of the programs are offered by universities in the USA (19 of 30), followed by the United Kingdom (8 of 30) and then Canada, Honk Kong and Sweden offer one program each one.

2.2. Service Syllabi

SERVSIG (SERVSIG 2016) is a well-known platform (www.servsig.org) for those interested in service research in academia or industry. It is an international service research community. The community of SERVSIG has co-created a syllabi of service logic related courses provided around the world. The published set of 69 service syllabi was analysed with the aim to complement the previous international comparative study. Each of the syllabi published in SERVSIG's website was examined following the same criteria described in section 2.1.

The exploratory review of 69 service syllabi revealed that 56.5% are related to undergraduate programs and 43.5% are part of graduate programs. Most of the programs are offered by universities in the USA (71%), and the rest by eight different countries. Noteworthy is that it does not include any emergent economy.

The conclusions of this study indicate that most of the programs are completely marketing oriented (88%) and thus they include more curriculum about business management and leadership competences. Just a few includes themes about service design competences.

2.3. Service Design World Map

The SDWM (Service Design World Map 2016) is an open and collaborative map on the web where different service design actors like consultancies, schools or companies can be identified. For this study, we focused on HEIs because they are the only to offer education programs. For each of the HEI identified a review of its academic website was analysed in order to identify what kind of service design program they offer according to previous criteria in section 2.1.

The analysis of the Service Design World Map (SDWM), in which 20 schools meet our selection criteria, offer different types of service design programs which have been also reviewed.

The exploratory review of 30 HEIs revealed that 20 offer a total of 23 service design programs. For the rest of the HEIs, we didn't find any related syllabi. Most of the programs are offered by design schools in Europe and the USA. However, 2 of them are offered in Brazil and 2 more in Chile.

The findings of this study indicate that most of the programs are design oriented (88%) and thus service design competences, covering themes like value co-creation and user-centric service design, have a central position in their curriculum. Most of the HEIs offer design education.

3. The tale of Service Innovation and Design master's degree program in Finland

At Laurea University of Applied Sciences (in short: Laurea), the globally pioneering master's degree program in service innovation and design (in short: SID) incorporates business studies with service development competences in order to educate future business practitioners with specific service design skills. Thus, the SID program aims to provide students with multidisciplinary knowledge in the recent development in the service marketing and management disciplines and service design.

Laurea operates in the Greater Helsinki Metropolitan area in Finland. Laurea has ca. 8000 students and 500 faculty and staff members. Laurea is the most awarded university in Finland (www.laurea.fi) since the Finnish Higher Education Evaluation Council (FINHEEC) has audited and nominated five 'Centre of Excellence' assessment awards to Laurea in 2003-2012. The 2016 audit results are pending.

The first SID master's degree programme curriculum was developed in 2008 for the relevant licence application submission to the Ministry of Education and Culture. SID is globally the very first business driven master's degree program focused on service innovation and design. Therefore the history of the SID program is elaborated in detail in several published articles (see for example Ojasalo and Ojasalo 2012; Ojasalo 2012; Ojasalo and Ojasalo 2009) and not described in detail in this paper.

Prior the SID program, service innovation, design or development studies could only be found as an individual module or as an additional part in main stream study units. To start with, there was no curriculum that could be benchmarked. Therefore, the development of the SID program was based on an extensive fact-finding exercise that was carried out to examine the significance of service innovation, service devel-

opment and service design competences, and the future competence needs. As a result of development efforts that included the extensive involvement of both international and regional actors, a curriculum was drawn. It was a good response to anticipating the new competence needs of the working life. It is also a competence-based curriculum designed to create distinctive contemporary competences needed in society today. The main combination of the competences are a) business competences in service innovations and b) service design competences.

The master's program has been implemented since 2009 with the first enrolment of the students. From the start, the program was subjected to systematic evaluation (Self-evaluation report 2015, internal document). Only some minor adjustments have been done during the annual evaluation of the curriculum in later years.

The development of the program and later on the evaluation of the program draw widely on the variety of service-related research in the field, international and Finnish networks, and feedback from students, teachers and other stakeholders. The teachers in the SID programme actively carry out service innovation research, participate in academic and professional conferences and seminars of this field, thus keeping up to date on the latest information and competence needs. Besides conducting research in the field, the teachers maintain broad working life networks. The teaching staff in the program is experienced in both theory and practice: teachers have a doctorate, a licentiate or a Master's degree in the field with strong working life experience. Moreover, foreign experts are involved in the programme providing specific expertise. (Self-evaluation report 2015, internal document.) Laurea has also an active role in regional development and further developing the university – industry relationships (Laurea-ammattikorkeakoulu 2010; Tossavainen 2007; Tossavainen 2012a)

The selection of teaching methods and learning environments is guided by the specific learning outcomes of the SID programme and the student feedback in particular. The teaching is based on the pedagogical approach of Learning by Developing (LbD). The LbD approach (Raij 2007; Raij 2014) places the students in the centre of his/ her learning experience. Both individual work and group work is carried out throughout the studies. As the approach is very work life oriented, majority of the learning exercises are based on real life challenges. This provides for each student in each study work an authentic case to solve, partnership with professional is working life, experiential learning opportunities and research-based information building. In keeping with the learning outcomes, the SID program favours a variety of creative, participatory methods which allow all participants to benefit from the students' prior learning as comprehensibly as possible. Competence is actively created together. (Self-evaluation report 2015, internal document.)

Classroom teaching provides the basis for learning new skills and competences. The creative communal work is emphasized during the contact sessions. The contact teaching is supported by online learning environments. As the digital environments in both business and in education develops quickly, it is incorporated with the studies.

Over the years, effective practices have been established for planning, implementing and evaluating the programme, which ensure its continuous development of the SID program. As stated in the previously, the program has been subjected to systematic evaluation since 2010. The SID programme has participated in two curriculum reviews implemented in Federation of Universities of Applied Sciences, in Finland, (FUAS) cooperation. In 2010–2011, the programme took part in an internal FUAS cross-evaluation of Master's degree programmes. This evaluation comprised an ex-

tensive self-evaluation and peer evaluation, and it targeted broadly the objectives, planning, implementation, results and impacts of the programme. In 2011–2012, the SID program took part in the international FUAS Curriculum Review process. The latest evaluation was carried out in the beginning of the year 2016. The authority responsible for this international audit was the Finnish Education Evaluation Centre (FINEEC). The SID program was the sample of master's degree education at Laurea.

For each of the evaluations, an extensive self-evaluation report has been produced within the teacher team of the programme supported by the top management and support functions. As part of the self-evaluations, several key strengths and also some areas for development have been identified. Based on the results of the evaluation, the following best practices are identified:

- 1. A comprehensive feedback collection system that supports programme development: involving students extensively in programme development.*
- 2. Common follow-up indicators and jointly set targets: systematic monitoring of the indicators.*
- 3. Uniform programme processes and clearly defined tasks and responsibilities of the actors relevant to the programme.*
- 4. Competent and committed personnel: a common focus and ability to respond fast as a result of the long-term shared planning and implementation work of the teacher team.*
- 5. Active participation of the teachers in networks of their field and close contacts with SID alumni helps to maintain working life relevance.*

To conclude the short tale, the SID program is a not a traditional one. SID program is not only a business degree. Further, it is not just a set of methods. It is a truly novel degree program faces altogether different challenges. Among those are 1) the fore-runner's position, 2) the un-developed discipline, 3) the status of the paradigm shift found in service business research, and 4) the participative multi-stakeholders' perspective. Furthermore, SID students play a crucial role in providing feedback of the studies and they return thru engaging graduates (alumni) to promote the thinking and the program.

4. Suggested considerations

Based on the comparative analysis of wide spectrum of data on HEIs, programs and syllabi, we have provided an extensive view of the current understanding of service innovation education. Although the service innovation and especially service design has gained a foothold in Europe and USA, the review of service innovation programs in HEIs suggests that the development progress of service innovation education offering in emerging economies is slow. Only a few service design programs were identified in emerging markets (China and Brazil). However, service design educations seem to be well established in developing economies like the USA, the United Kingdom and European countries. Also, only a few programs have an integrative orientation that supports developing the required competences for service design and development.

The paper suggests that curriculum development is needed to take place in educating the future generation of service innovators and their contribution to the service industry growth also in emerging economies. Through the analysis, we have identified some key suggestions to HEIs to consider. The first five suggested considerations are categorized by Roberts (2015) albeit aimed for undergraduate curriculum development: discipline-based orientation, professional and academic orientation, personal relevance orientation, social relevance – reform orientation, and systems design orientation. The following considerations are based on the results of the studies presented in this paper.

Table 1. Suggested considerations to improve Service Innovation and Design Programs

SUGGESTED	NEED 1	NEED 2	EXAMPLE	BENEFITS
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CONSIDERATIONS				
Discipline-based orientation	Discipline clarity	Emerging disciplines are more holistic; move away from disciplinary silos to combinations of knowledge	A staff of teachers with different disciplines; service design programs with an integral orientation	Better university capacity building; better sense of multidisciplinary work
Professional and academic orientation	Provide range of future pathways	Balancing the learning experience with professional and disciplinary knowledge.	Real problem based learning supported by research activities, personnel with academic and professional background support this	Professional practices learned; models, processes, methods, techniques and tools
Personal relevance orientation	Sensing the everyday experiences	Design meaningful learning experiences	Individual and group assignments; learning from each other, co-creation, continuous feedback discussion and feedback, integrations of the studies and working life on personal level	Personal growth; lifelong learning; professional growth
Social relevance – reform orientation	understanding of social issues and structures, with a view to social reform	Developing service innovation and design programs for emerging markets	Transformation of society; business approach change from industrial to service logics,	Buildings capabilities to strength the service industry in emerging markets; Foster multidisciplinary work to solve societal challenges
Systems design orientation	Effective and flexible system for learning	Design better educational technologies	Combination of contact and online work, authentic cases integrated to the studies, experimental learning, uniform programme processes	Better digital culture
<i>Reach out through interaction for development</i>	Working life (firms, organisations, etc.) are the best to defining future competence needs	Working life needs to be involved in developing programs and curriculums more extensively	Engage stakeholders; Establish advisory boards with practitioners; establish regular practices for academia - industry	Improved professional capabilities with future business practitioners
<i>Uniform programme processes</i>	Systemic understanding of the actors, roles, and tasks	Provide information and enable understanding how the education works	Curriculum descriptions, role descriptions, program description, individual course descriptions	Share information, and create wider knowledge – beneficiary for developing needed competences
<i>Holistic service innovation and design set-up</i>	Theoretical and practical knowledge on service innovation and service design; interrelated courses	Practice methods, techniques and tools with real life problems and challenges	Use same case for several individual study units to improve the learning experience	Service innovation is holistic approach and requires examination on multiple perspectives

<i>Continuous discussion and feedback with students and alumni</i>	Students are the users of the education service and working life is the customer of the education service	To improve the status quo, the students and alumni experiences are valuable in co-creation of the program	Systematic feedback collection system, regular discussions with alumni	Modify the program fast in detail level; development based on actual experience
<i>Competent and committed personnel</i>	Continuous learning is a must for the personnel	The latest knowledge injected into education programs	Encourage research participation of networks, publishing, international joint activities,	Continuous improvement actions, up-to-date knowledge, better learning experiences

Table 1 depicts some of the main considerations found during the study. As we agree on the suggestions by Roberts (2015), we found them too narrow. In general situation, and in undergraduate context, they form a good basis to start the development. In the case of the emerging discipline, such as service innovation, the principles are slightly different. First of all, the HEI should understand the education as a service and apply the basic principles of service logic into the institution. Moreover, it is important to achieve service innovation to apply those novel competences and skills with models, methods, techniques, and tools to develop and to design the program and curriculum.

5. Discussion

Higher education institutes emphasise providing the training and skills for employment. At its best, this is closely linked to the good industry practices. Aligning education with industry needs is a topical issue while a mismatch between skills and job means that the match between education and employment opportunities can be improved (Moss Kanter 2012).

However, prior to the SID program, service innovation, design or development studies could only be found as an individual study module or as an additional part in mainstream study units. The syllabi by SERVSIG shows the majority of individual courses related to the marketing discipline. Service innovation is a holistic approach and touches other functions of the organisations from marketing, to logistics, production, to finance and human relations. Individual course or study units can be a good starting point for a HEI to get involved with a new topic. The SID program experience shows that in order to provide the required holistic view on service business and service innovation the whole program should be established. This case serves as a trigger to consider how to embed service innovation in the HEIs in emergent economies to strengthen their future SI capabilities.

Service innovation and design education should matter to emerging markets because its practice in global scale has grown in the last years. Service design has the capacity to increase innovativeness in product-services also through visualization of the holistic service development process (Tossavainen and Kaartti 2015). Besides, the service industry in emerging markets has a potential to grow and improve the societies. For example, according to the INEGI (The National Statistics Institute in Mexico), the service sector in Mexico was the main engine of economic growth in 2015. It has had a good performance also in the last years. However, as the rest of Latin America, the third sector needs to improve. According to REDLAS (The Latin American Network for Research on Services) more efforts are needed to better understand the role of services in this region (REDLAS 2016).

This paper contributes to understanding of higher education institute's challenges developing their service innovation program.

5.1. Conclusions

This paper introduced a comparative study of the programs in the emerging field. The analysis has shown that majority of the service related education is based on individual course and holistic degree programs are scarce. The tale of the land of 100000 lakes has shown that novel approaches can be taken in program and curriculum design. The results of the analysis show that especially the Latin American region is behind in the development of the service innovation and design skills and competences. This paper described a pioneering degree program as a case example of integrating theoretical and practical knowledge into novel and sought after competences. The paper provided some considerations for the interested parties. Our opinion is that in order to achieve innovative education offering and educate the future service developers, the educational systems needs to be understand as a service and thus the principles of that logic should be applied in practise.

To conclude, the analysis has an explorative character which should be considered as a first attempt to approach the actual state of art in service innovation and design education and what are the challenges in this domain. Besides, because not all the reviewed syllabi had clear information about curriculum, identifying educated competences was challenging. Nevertheless, this paper can be a useful material for those interested in launching a service innovation and design program in emerging markets or improving existing ones.

5.2. Future research suggestions

An interesting avenue for future research in context of emerging markets is to study how the teaching team is educated for the 1) substance, i.e. transformation of service

business economy, 2) pedagogical reforms, e.g. competence-based, student-centred education, 3) requisites, i.e. service innovation and design processes, models, methods, techniques, and tools.

Also, it is necessary to do research for understanding the service sector in emerging markets with the aim to study how to better introduce service design in these countries. The study could reveal different competency needs in emerging markets in contrast to those of developed countries. We foresee that some of the new competences and skills are similar but differences may appear in research.

Additionally, to understand better the progress of service design education, a survey to gather information from practitioners and scholars could be developed.

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