

Fostering Augmented Information: Analyzing Assisted Living Experience in Malaysia

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Abstract

Like other developing countries, Malaysia also will facing with aging phenomenon. Malaysian Government already started to rise up the issues of elderly people problem since 1995. The formulation of the National Policy for the Elderly in 1995 and the setting up of the National Elderly Health Council in 1997 confirm that the government is serious in its commitment to provide care and services for the nation's elderly. A comprehensive health care system has been applied through extensive care for elderly with chronic diseases. The health care system has been developed to focus on short term care and short term hospitalization with the consequence that the services available may not be effective in dealing with elderly having chronic diseases and disabilities. A research has recognized a moment of truth from the older system. Resulted of analyzing have shown that elderly people in Malaysia dependent too much on their family support and government support which is a contrary with western culture where elderly people tend to be more independent. Because of too much attention from the family and the government itself, we fail to prepare them to be more independent in future. Looking at the pressure of globalization and sustainable future this research need to come out with solutions that can really offer a win-win situation. The aim of this research is to revolutionize the previous system of homes nursing and assisted living experience and provide a better system that can really support elderly people sustain and manage their daily life effectively without a provision from the government or private sector nursing. The strategy is to provide a support system and schemes as options.

Keywords fostering augmented information, aging, moment of truth

Abstrak

Seperti negara-negara membangun yang lain, Malaysia juga akan menghadapi dengan fenomena penuaan. Kerajaan Malaysia sudah mula membangkitkan isu warga tua sejak 1995. Pembentukan Dasar-Negara Warga Tua pada tahun 1995 dan penubuhan Majlis Kebangsaan Kesihatan Warga Emas pada tahun 1997 membuktikan kerajaan serius dalam komitmennya untuk menyediakan penjagaan dan perkhidmatan untuk warga emas negara. Satu sistem penjagaan kesihatan yang komprehensif telah digunakan sebagai penjagaan bagi warga tua dengan penyakit kronik. Sistem penjagaan kesihatan negara telah dibangunkan untuk memberi tumpuan kepada penjagaan jangka pendek dan penjagaan di hospital dalam jangka panjang dengan mengambilkira bahawa perkhidmatan yang disediakan mungkin tidak berkesan dalam berurusan dengan warga tua mempunyai penyakit kronik dan kurang upaya. Satu penyelidikan telah dilakukan bagi mengenal pasti moment-of-truth dari sistem yang terdahulu. Keputusan dari analisa telah menunjukkan bahawa orang tua di Malaysia terlalu bergantung pada sokongan keluarga mereka dan sokongan kerajaan dimana ini bertentangan dengan budaya barat di mana orang tua cenderung untuk menjadi lebih berdikari. Kesan keperihatinan yang melampau dan perhatian dari keluarga juga kerajaan, maka kita gagal untuk menyediakan mereka untuk menjadi lebih berdikari di masa hadapan. Melihat pada tekanan globalisasi kini dan bagi menghadapi masa depan yang lestari kajian ini perlu untuk cuba mencari jalan penyelesaian yang boleh memberikan penyelesaian kepada semua pihak. Tujuan kajian ini adalah untuk merevolusikan sistem yang terdahulu iaitu sistem bantuan kejururawatan di rumah dan pengalaman di rumah warga emas. Dengan harapan kajian ini boleh menyediakan satu sistem yang lebih baik, yang benar-benar boleh menyokong warga emas berdikari dan mampu menguruskan kehidupan harian mereka dengan berkesan tanpa campurtangan dari kerajaan. Strateginya adalah untuk menyediakan satu sistem sokongan dan pelbagai alternatif sebagai pilihan.

Kata kunci fostering augmented information, warga emas, moment-of-truth

INTRODUCTION

Aging is not simply a later life. Aging is a life-long event from the time of birth to infancy, childhood and adolescence to adulthood and onwards maturity. It is a gradual process of change over the course of time. The population as a whole is aging and this can be seen for the increase in the percentage in the proportion of the elderly in the total world population. The population who are aged 60 and over in Malaysia is estimated at about 1 million now, and is projected to increase to 1.5 million by the turn of the century, and 4 million by the year 2025. Using the more conventional measure of 65 years and over, the number of persons aged 65 and over is estimated at around one million by the year 2000, and 2.7 million by the year 2025. There will be 833,000 old-old (aged 75 and over) in just about 28 years from now. The growth pattern of the different age categories indicate that while increases in all age categories are expected, the increase is more marked at the older ages.

Issues of elderly healthy-aging in Malaysia today's have been talks and presented by a researcher especially in the fields of health care innovation sector at government hospital. The outcome of this research usually directed to the issues of elderly health problem is not because of aging process but mostly a chronic diseases and un-healthy life style of the elderly. Although, a research discussed on issues of health-care innovation and health-care services seldom a research embark on issues of care system or a proper services system and even to some point an asset management was not been discuss utterly. The traditional elderly care system still operates on basis information without much effort and no cost had been putting in this areas to educate a society or to at least given an information updates to elderly in need. One of factor contributed to this lack of information sending to outside is a Malaysian perception towards assisted living. For elderly in Malaysia it's a taboo, unacceptable by society for an elderly to go to assisted living homes. Malaysian still believe in 'filial piety' custom, where a children should look after their parents.

Many elderly people designate they would prefer to live independently in their own homes as long as possible. Elderly in Malaysian particularly believe in the ideas of living independently at their homes as long as possible are acceptable and honorable lifestyle to them comparing to live in the assisted living homes which is they felt abandon by their family or children, which was confirmed in research interview sessions. This situation discourage elderly to mingle around with other elderly as part of healthy social interaction only worsen the health of an elderly when isolation came overshadow them with typical health problems and family problems. Occurred in observation clearly portrait that elderly are at their best when they mingled, interact with each other and concern for each other as a part of their social responsibility. This is a time a technology should be an agent to help strengthen the bond that an elderly already innovate with them knowing it. Social responsibility and social interaction that taking over a typical jobs from care taker could be in part and be taken over and augmented by new technology.

The assistive technology could play a big role in augment information found, by promoting the uniqueness of social activities created by an elderly and offers a solution for elderly worse nightmare which is social isolation. Encouragement is needed to educate an elderly in Malaysia that assistive technology and assisted living homes will benefit them in term of social benefits and they could live a life of healthy aging. From a technological perspective, one could simply assume that existing system that support elderly are well improving. When talking to elderly as an end user, resulted that technology only a secondary solutions compare to real human to human interaction which given more meaningful and sincerity feeling to them. Elderly prefer a simple assistive technology rather than complex interaction that require them to learn new skills, as new product for assistive technology are lack of user-perceived benefit.

Products and service are mostly design to help enhancing elderly health problems and reduce the coast and time of care takers. Instead these products only appear as health products only and elderly still believe in human to human interaction which involves feeling and humanity. These is proven in observation when elderly are keen to talk more on a temporary basis physical therapy which still on-going and conducted by a doctoral researcher in physiotherapy from University Putra Malaysia. Result has shown that elderly are more willing to participate for these physical training conduct by one of the doctoral researcher in fields on gerontology rather than they exercise regularly with provided healthcare products such as treadmill. A trust that have been built between an elderly and mentioned doctoral researcher are more likely bond them together even though there is a communication barrier between a doctoral researcher and elderly as a mentioned doctoral researcher are from Iran and all the elderly are locals.

This paper presents a vision on how a simple communication and interactions are more acceptable rather than complex assistive products that could be introduced to the system in a coming year. “The more complexity there is in the market, the more that something simpler stands out” (Maeda 2006). Before a Malaysian government investing a million ringgit on health care products and assistive technology this research is a pilot test to ensure the direction of assisted living homes for elderly in Malaysia are shaped based on Malaysian needs and not referred to other countries’ needs. Authenticity and uniqueness of Malaysian custom and beliefs are essential for this research whereby augmented information gathered from this research could benefit both parties and increase context awareness between elderly and design products for elderly. A design approach is proposed as guidance for user context awareness and enhancing user perceived benefit by the end user and are used as guiding factors.

BACKGROUND

“As older persons also generally require more care than the general population, the government has provided elderly-friendly facilities that include housing, transportation, recreation facilities, appropriate restrooms, and lifts and ramps in public areas. The provision of old folk homes or nursing homes for the purpose of long-term care will soon become a necessity, as the ageing phenomenon becomes more prevalent in Malaysia” (Malaysian Institute of Economic Research (MIER), 2008) As an older person needs more assistance we used to provide our elderly with so much help that we forgot to improve them with a cultivated environment that encourages independent living among our elderly. Do we have suitable medical and healthcare services that cater specially for the elderly? Do we have a system that allows the elderly to continue contributing gainfully to society? Evidence from observation and mapping of user everyday routine at mentioned assisted homes indicate that elderly dependent too much on management agenda and activities. With so much lacking on service design that contributes to elderly healthy activities during every day routine, elderly tend to be in an active situation. An interview with participants concludes that more activities we demand by elderly to ensure a healthy life and to enrich their golden life. Part of it social activities were least most voted activities by demand from most of the interviewed participants. Yet, the management lacks funding from the NGO neither the governments. A simple activity such as morning exercise known as ‘poco-poco’ dance bound elderly together where ‘poco-poco’ dance effectively socializes and interacts a new comer with old members with laughter and smiling faces. Although, a trip or an outfield are mostly demanded by elderly, but a simple social activity is good enough to fill their daily life routine. A simple activity such as “wearable”, meaning worn by objects such as tables and chairs rather than people, whose goal is to stimulate interpersonal communication.” (Moggridge 2007), considering a good concept to be adapted by assisted homes without needing to spend on large sums of expenses. Encouraging an elderly to react and practice “stimulate interpersonal” amongst them will ensure an elderly as an active actor designing their ways of living. This is where an asset management plays a most crucial role in developing a dependent life for elderly. Saying this, research seeks further into source of management/ marketing at the mentioned assisted homes and evidence found proved that lack of communication within the staff and the elderly bridging the gap of interactions. Elderly tend to listen and follow orders from the management staff and without any suggestion from staff or care giver elderly are more likely feeling blues and lonely and most of the time laid back watching T.V and playing Mahjong. Although, in the western world interactions with technology are most encouraged by a care taker, but a result shown from a few research data proven that elderly are most likely prefer not to share personal things with care taker. Contrary with Malaysian elderly they are most likely love to share personal things such as stories, experiences and even family matters to visitors and friends to lessen their burden or stress or just changing stories to each other’s. Malaysian elderly are more open to personal things rather than keep it to themselves which differs to elderly in the western world. Rare opportunities like this should be taken seriously by management to enhance an elderly capability of being independent living. Somehow or rather a lack of technology and lack of effective management sacrifices all the rare opportunities for an elderly to mingle amongst them with healthy social activities. A story been told to researcher by a respondent perhaps are most convincing story. Whereby one of the respondent travel more likely 5 (kilometers) from his house to the assisted homes using a public transport that are difficult

to be access during a morning time, and the respondent effort to walk around 500 meters from bus stop to the assisted homes just to mingle with his elderly friends and shared prepare a lunch meals together.

A mapping of complexity within a range of 5 (five) kilometers radius, research founded that the location of assisted homes easily accessible to all, and located at a sub-urban areas this assisted homes are considering a good meeting place or hub for elderly activities. Public transportation to this area is difficult to access and usually is in a bad condition.

Elderly need more assistant and dependent on their family to provide them with care and to look after them in many ways possible. Strongly urge that Malaysian must provide our elderly with so much help that we forgot to prepare them with cultivate an environment that encourages independent living among our elderly. Do we have suitable medical and healthcare services that cater specially for the elderly? Do we have system that allows the elderly to continue contributing gainfully to society? The answer is still hidden between a government policy and local authorities managing the assisted living homes.

Theoretical Frame Work

Theoretical framework that has been adapts and develops for this research is referencing from a thesis on service design marketing and design management emphasis on Service-Dominat Logic and service innovation. The referred thesis argued on management side of service design and respectively combining two different fields are design and marketing. Emerging these two different fields under a new framework model and a based on service design practice in literature. “The framework presents service design through five characteristics, as an 1) interdisciplinary practice, using 2) visualization & prototyping, and 3) participation as means for developing the design object, seen as 4) transformations, and 5) value creation. This framework leads to an understanding of service design practice as a continuously repositioning activity.” These theoretical frameworks are the latest framework that has been developed into a model based on a collective description of service design by an expert in design management and marketing for service innovation.

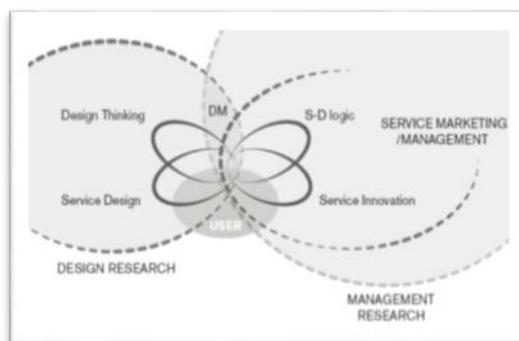


Figure 1 Theoretical landscape develop by Katarina Wetter Edman

METHODOLOGY

This research is using qualitative research embed with service design, and descriptive types of qualitative research have been applied. 2 (two) method have been applied which is first method is a field work observation, for data collection. Observer as a participant and data collected focusing on activities and interactions observations towards elderly behavior or change of behavior. Respondent activities have been recorded and have been analysis to identified change of behavior amongst selected group of respondent. Data collected also in a form of photograph taken at on site, focusing on respondent and selected group activities and interactions amongst respondent. Second method applied for this research is a interviews, whereby a types of unstructured interview have been conducted into a small group of participants. Service design method of research instruments were then embeds into this descriptive qualitative research. Service design method was chosen to measure the effectiveness of interactions between participants at the assisted homes to their environment, communication and system of daily routine. Resulted of this instruments

were carefully analyze and data collected have shown an impressive discovery of real life situations and based on this discovery of evidence this research embark into 2 (two) major issues of opportunity.

i. Design as service

“Service Design is the activity of planning and organizing people, infrastructure, communication and material components of a service, in order to improve its quality, the interaction between service provider and customers and the customer's experience. Service Design is increasingly used by blue-chip private and public sector organizations as a means of creating the step change their customers require in terms of service experience. Service Design agencies apply design tools, techniques and thinking to service challenges, either to improve existing services or to create new ones.” (Sophia Parker, 2006).

ii. Character profiles

Embed with qualitative for data findings are *profiling the actors* is a tools to collect qualitative richness of the information provided by actors. Furthermore, by analyzing user profiles background based on interviews and ethnography method, these user profiles provided background of actors with same category and same needs. Adequate information gathered from actors would lead this research to understand actors co-value creation probability and user interactions towards products or design. In some cases studied actors also contribute on giving new meanings to products or design perspectives accentuates an individual solutions often including final customers. “The character profiles is a tool for the creation of a shared knowledge about the service users inside the team.”(DARC, 2008). “The hypothesis that new actors become an active part of the production system would require an accurate profile of them, in order to get a better insight on the terms of their interaction and their influence.” (Morelli, 2009).

iii. Customer Journey Map

“The customer journey map is an oriented graph that describes the journey of a user by representing the different touch points that characterize his interaction with the service.”(DARC, 2008). “User journey mapping is a technique to measure a user satisfaction, where the analysis start from the user early journey to user end journey while having the services.”(Moritz, 2005).



Figure 2 Character profiles developed by Ramlan Jantan

Refer to figure 4, a synthesize information design for user journeys mapping at *Rumah Kebajikan Cheras Baru, Kuala Lumpur, Malaysia*, indicated a user journeys experience over time. Whereby, every character profiles have their own needs and expectation towards the service provided at mentioned assisted homes. Basic activities were provided by the care taker and the management based upon availability by care taker, such as morning exercise and traditional Indonesian folk dance known as ‘poco-poco’. Based on observations at field work, resulted that most elderly were excited during the ‘poco-poco’ dance whereby, experiences and knowledge were pass by and shared among elderly. These healthy social interactions are really benefits elderly in term of health and separating elderly against social isolation and lead to healthy life.

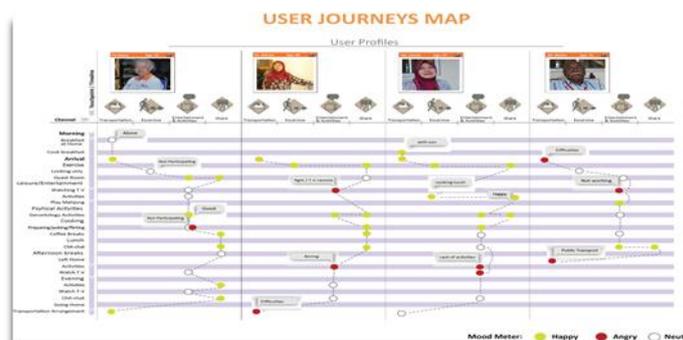


Figure 3 Customer/user Journeys mapping graph develop by Ramlan Jantan

Furthermore, a user journeys mapping also provided qualitative data such as observations of user behaviours, which are most crucially debate in research papers today's as understanding of user behaviours will ensure a step to service innovation. Research identified a few gaps and opportunity resulted from this user journeys mapping. Those are like complaining from elderly that lack of activities is driving them bored and felt useless. Although, sometimes arranged outside trip were organize among the management and the elderly themselves but seldom are apply. Refer to figure 3, under first character profiles Mrs Maria showing of her user journeys mapping on daily routine at mentioned assisted home. She started her morning with breakfast with her son that taking care of her currently, and transportation was quite an issue for Mrs Maria as her son only available to send and pick her up at assisted home a few days on a weeks. An interview with key informants informed that Mrs Maria having a symptom of short term memory lost and the reason her son sending her to assisted homes two or three times week because of worries of her health as Mrs Maria tend to be in social isolation which is a symptom of unhealthy amongst elderly. Furthermore, based on data collected showing that Mrs Maria does not participate for morning exercise due to her health and considering she is a new comer a time is needed for her to adapt with the situation and amongst elderly. Red mood meter were identified as angry and white were identified as neutral and green mood meter as happy. An indicator from a mood meter from the graph informed that Mrs Maria having trouble to adapt with new environment and a red mood meter were then identified during cooking activities. One of the most cherish and enjoy full activities are cooking lunch activity whereby, most of Malay races elderly participating. To some extent Mrs Maria as a new comer felt neglected and uncomfortable with the situation not only push her away from the cherish activity and this are despairing for Mrs Maria.

Other gap and opportunity identified are transportation problem amongst elderly in Malaysia, especially for elderly using public transportation to commute to assisted homes. Complaining usually on peak time in the morning where public transportation is not easily accessible by elderly due to long cue. This is contrary to western world, where transportation to assisted homes were properly managed by car-pooling or rented services, please refer *Bill Moggridge Interaction design, pages 415 (Moggridge 2007)* LiveIWork London consulting a Fiat Multiple rented car services.

Data collected for transportation mapping reveal that public transportation for elderly in Malaysia still in a state of poor availability. Result indicate from data refer as second respondent and a second character profiles were disappointed on transportation and having difficulties to access to public transport. Respondent had to walk 500 metres from the bus stop to the assisted homes. This is due to no route to the nearby area of assisted homes. Further discussion will be elaborated on opportunity and challenge.

Touch points and channel

“Every services has touch points where it's could be a receptionist, a marketing peoples, or a marketing kit. Channel is a services line, where in a organization channel could be a department, a division or services provided.”(Moritz 2005)

Moment of truth

“Moment of truth is when a service offered is most effective to user. This technique is to measure a user satisfaction on offered services and in real-time situation is there any solution provided to enhance the services.” (Sophia Parker, 2006)

RESULTS AND DISCUSSION

Conceptual Framework

This research project is situated in the overlapping areas of joint management and shared communications, as shown in Figure 2. These research area drawn from two (2) main areas isolate to each other which is design management (DM) and service design perspectives. Research encounters an opportunity within the management/ marketing area that can be expand into creating a co-value creation. These can be see in figure 2, where the joint management areas are overlapping with shared communications area. Both of this areas are drawn from DM (Design management) area from a reference theoretical framework (Please refer figure 1). Evidence of recording a video and a researcher fields notes describing a management failure at assisted homes or location is based. To fully utilize design thinking and design management for service design the mentioned failure area is most suitable to be engage to create a co-value creation and goals for service innovation in future. Overlapping area depict from joint management area is a shared communication area. As social interactions is highly evolve humans or user interact with each other to create a co-value creation and user also regards as a provider for a products. Prose framework with 2 (two) oval shape are overlapping each other are compliments each areas with capability for user in capable to interact socially. Chronologically, both interaction areas will lead to service innovation portray as half circle with dotted lines to give an impression that the ideas of service innovation are newly creating within these areas and expected to expand in future research.

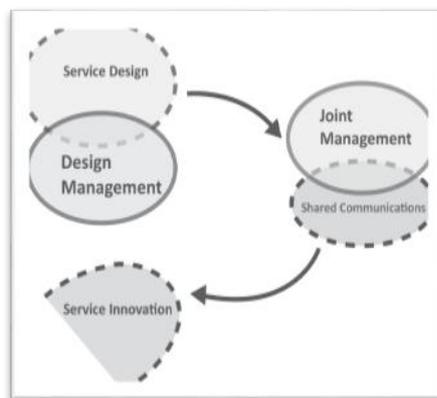


Figure 4 Theoretical framework develop by Ramlan Jantan

Conceptual Framework for Asset Management and Joint Management

These research projects are situated in 2 (two) different areas and consist of service design and service marketing, where in literature service marketing have been describing and discussed in many research papers and journal but lack of tools or ways of realization for service marketing. Meanwhile, in design thinking areas where service design intersection with design thinking and service marketing logic created and debated in international level a new model of service design logic. These intersections of two different areas some more or rather are synchronized and compliments each other as a method as a guidance for designers to create a co-creation value with potential user/ customer and stakeholder. Referring to figure 4, a new model developed by Catarina Wetter Edman in her licentiate thesis, these synthesized model integrating the two different disciplinary together to create a ways of how service design can be practice. Looking into this model research focusing on joint management concept for

assisted living in Malaysia, found that not only a norm practice for designers to gather data from user by applying user centered design and designers as a whole define the services or product. But, instead according to these model in figure 5, designers are more capable to understand users' needs by following the proposed five characteristic and by involving users to create a co-creational value. "Who? Service design is interdisciplinary, and several competences are involved in this process. Focus is on the fact that distinct practices are needed to form this interdisciplinary setting." (Edman, 2011), discussed that distinct practices is required in both areas which are service design and service marketing management in a way for service innovation to work. Furthermore, research embarks into areas of joint management and shared communication by practicing first characteristic of proposed model by Catarina which is interdisciplinary, a jointly created between design thinking process and management side. Secondly, a visualization and prototyping were merged together and applied to find contextual aspects between a network system and actors. Result of this outcomes and discoveries further discussed below. Summary of these topics discussed, a co-value creation value can be measure and mapping via referred model and data collected and extract from this process was clearly identified.

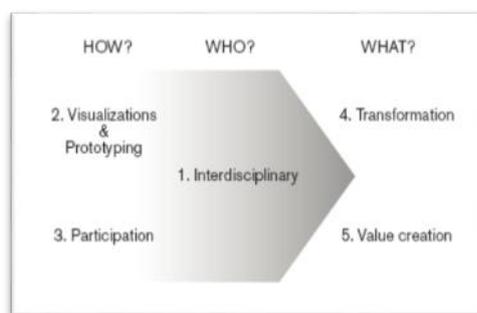


Figure 5 The developed model, integrating service design characteristic found in literature by Catarina Wetter Edman, 2011

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Why Service Design

“Since their development in the 1970’s, these practices have mostly been known and used within the HCI (Human Computer Interaction) design area (Holmlid, 2009b). Previously services had been both developed and designed, but supposedly not with a design perspective as foundation.” (Edman, 2011). “This, we argue, eats away at the fundamental purpose of service: to provide support and to help people live their lives to their full potential.” (Sophia Parker, 2006). Service design is an activity of observing services and measure services effectiveness and giving more value to user participation towards enhancing the services given. Started, by mapping and old user journey system and try to understand what when wrong or any gap or opportunities that can be plan to enhance or to augment an old system. Stake holders system mapping also needed to understand the stake holders need instead of only focusing on products developments, service design enable designers to measure stake holders co-value creation and benefits stake holders in term of better services for better sustainable future. Please refer to figure 1, Edman 2011 claimed that “ The framework presents service design through five characteristics, as an 1) interdisciplinary practice, using 2) visualization & prototyping, and 3) participation as means for developing the design object, seen as 4) transformation, and 5) value creation. This framework leads to an understanding of service design practice as a continuously repositioning activity.” (Edman, 2011). In her licentiate thesis Katarina Wetter Edman suggested that service design positioning in service innovation and service marketing based on 5 (five) interdisciplinary practice such as mentioned above, visualization & prototyping is a medium that designers or service designers using on measuring a services performance. By doing this designers and could have an ideas on what is user behavior towards products or design and what is user desired. A series of service design methods was implying to measure this performance and to better understanding the overall functions of a system.

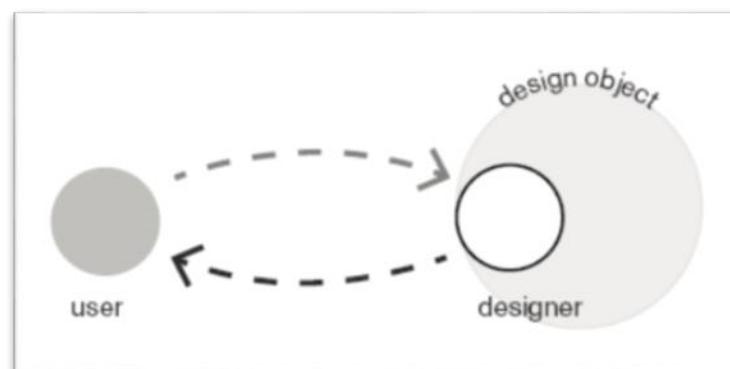


Figure 6 The developed model, user involvement in service management and service design by Catarina Wetter Edman, 2011

Edman 2011 (cited in Løvlie, Downs & Reason, 2008) states: A key element in the practice of product design is to study people and how they use things as a starting point for the creative process. Since users of services are essential parts of the “service factory” (or more appropriately speaking, the “service ecology”) it is even more important to involve them deeply in the design process. Unlike designing products, designers for service design involved only on small extent of services, whereby a user or customers’ needs and opinions is essential to jointly create co creational value. In figure 6, Edman (2011), in her licentiate thesis claim that designers today involved in service design are practising service design logic theories whereby an areas of service marketing and management were combine. Service Dominant Logic, new developed theories of service design emerging practices claimed that designers today are dependable on customers’ needs and experiences as a methods of understanding a products or services. Service design designers as portray in figure 6, working towards user by getting all the information needed from user and getting back to product to apply the information, and the step process are looping until satisfaction guaranteed. These out of normal ways of working style for designers, really created a new ways of visualizing and prototyping products differ from old traditions practices by using user centred design methods.

Profound into depth of this research where two new areas are adequately extract from the analysis indicating that a terrible management at assisted living homes is Malaysia brutally outskirts elderly out

from their basic necessity which are socialization and interaction. That is why these area of management needs to be augment, in a way for service innovation to taking place. Research will further discuss these matters on a service design methods section, for now research focusing on how to realize a concept of joint management propose for an outcome of this research whereby a contribution will be make in area of service design management. Asset is most important parts of assisted living homes in Malaysia, looking at how assisted homes being run are much dependable on asset. These include a management building, a sports recreational area, and a mini garden for elderly. All these fix asset existed to assist elderly through their daily life. Only that evidence of user journey mapping methods and touch points and channel mapping of the overall network shown that an asset in assisted homes are unwisely manage. Rather, than a normal running through a daily life asset only existed to assist elderly only a quarter of full potential of asset can be. In this research, researcher is proposing a joint management concept to ensure a full capability of asset management. Make it a NGOs participation or local community participation are most encourage as asset in assisted homes can be rented or place in assisted homes can be rented for commercialization. “Innovative solutions are shaped by the socio-cultural frameworks of the actors directly or indirectly involved in the development process” (Morelli 2009) Morelli claimed that analysis and interpretation of the context for socio-cultural itself require involvement of many parties. Morelli, reported that “such actors include animated entities (such as companies, designers, users and suppliers) and unanimated factors (such as regulations, technologies and other products and services used in the same production and consumption system.” (Morelli 2009).

Design Management

This research theoretical framework are referred to Katarina Wetter Edman framework model, please refer figure 1 as a main reference for theoretical framework. (Edman, 2011) argument on “The conceptual framework encompasses areas of design research, including design thinking, service design and design management. These areas are related to management research, with a specific focus on service marketing/management, including Service-Dominant logic and service innovation. The thesis includes an interdisciplinary literature review with a specific focus on how user involvement is conceptualized in service design and service management respectively, and develops a conceptual framework of service design based in descriptions of service design practice in the literature.”(Edman, 2011), describing on her theories on how design service marketing/management was involve in shaping the conceptual framework for design management (DM), with perspectives on design itself. She also claimed that design management responsible to manage and integrate design functions in organizations. In addition to this research design management (DM) are most essential framework to shape the direction of this research into other 2 (two) most efficient framework which will be a major contribution for this research. “In addition, there has been growing interest in two different ways of exploring other aspects of the relation of design and management. The main stream of design management research continues to be interested in how to integrate and manage design functions in organizations” (Edman, 2011). Edman (2011), suggested design management (DM) is a process or an application to ensure a management of design was successfully been conduct with proper empirical data. To this extend this research paper discussed an opportunity that have been found to augment assisted living services in Malaysia especially on managing the asset management of assisted living in Malaysia. These topics will be discussed in methodology section and at scope and research gap section.

“Design management (DM) is truly situated in the middle of the intersection of design and management, drawing on practice and theories from both sides. Both design thinking and design management relate more to general management theories than service management theories.”(Edman 2011)

DISCUSSION

i. Opportunity & co-creation value

Developed countries such as United Kingdom already facing with mass customization ideas, where *services* have been in a form of building blocks which applied particular model of core elements from a political party core values. Struggle to personalize to meets the needs of public political party in United Kingdom for example assigning personalization concepts where public are able to choose what they like. Unfortunately, without co-creation where customer's participation is almost void a personalization for public services failed to supply customers with effective public services. Argument on this issue seldom were discuss from lower management to top management and so call from top to down management bureaucracy was still dominate the public choices for public services. Until a theory of double devolution were recognized and take part on revolutionize the public services. "Choice has become the primary mechanism by which this government is seeking to personalize services. It is seen as a means of enabling greater user autonomy, and a way of engaging people in the creation of outcomes." (Sophia Parker, 2006). "Double devolution; the commitment to devolving power from the center to the local has been part of the reform agenda since 1997. More recently, the notion of 'double devolution' – where power is devolved from the town hall to the neighborhood – has become popular in policy-making circles, further emphasizing a commitment to create flexible, responsive services appropriate for specific communities and localities." (Sophia Parker, 2006). Research further discuss on these matters to bring out the effective solutions for managing the assisted living homes In Malaysia by tackling the issue of management. Started from the asset management, these research believes by fostering an information to be shared by others such as local governance and local communities will create service innovations effectiveness.

ii. Genuine Partnership Working

Starting with peoples themselves and creating participations for co-creational value and co-design will ensure an effective personalization towards effective service innovation techniques. The ideas of genuine partnership working between local assisted homes together with non-government bodies or any commercial business sector or party will ensure a win-win situation for commercialization. Furthermore, data collected from *touch point and channel to mapping of stake holder maps* reveal that most of assisted homes in Malaysia equipped with management asset. Only the ideas are to augment the information gathered and fostering the information to be shared by others in term of generating a joint partnership for business purposes. It sector and network have been advancement in development for assisted living for the past few years back in western civilization. Whereby, implementing of IT and multimedia are most encouraging issues so far. A drawback for developing countries such as Malaysia is was still left behind in term of collaborating IT and multimedia into our old folk's homes and assisted homes. Due to financial problem and lack of awareness into these sector contributed to slow moving of elderly development in Malaysia. Extended challenges for these research is to revolutionize an old system that consist of already existed building blocks of core values from local government in which no implementation of co-design and co-creational value in existing systems. A business model or a shared communication models should be built to ensure a collaboration of genuine partnership programmed is a success story. Based on existing asset management value at most assisted homes in Malaysia which normally consist of a management building, activities area, nursing homes and mini garden a platform for joint management should be created. Platforms where small businesses can be perform or rented by any businesses need to be build and personalize, to be synchronize with co-design and co-creational value whereby a question of who are you? What do you want or need? Or how can we help must be answer and implement. Participation of elderly as a user is essential to ensure an elderly benefit from this model or ideas. "Staff are expected to challenge those systems and processes that are not supporting them in their drive to develop intimate relationships with customers – and this kind of challenge is actively sought out and encouraged. By demanding a focus on the interface, every element of the system is held to account for the part they have to play in maintaining that focus. Service design approaches seek to build in systems of mutual accountability flows to achieve this."(Sophia Parker, 2006). Sophia Parker 2006, argued that a mutual accountability to create an ultimate services between public services and small businesses or non-government organizations can lead to greater services for personalize public services. Furthermore, research believes a participation of small businesses will generate income for assisted homes itself. Looking at a case studies between Fiat Multiplan (please refer to *Designing Interaction, Bill Moggridge, pages- 41*) and local communities, a partnership models successfully engage peoples or user to participate

in a car pool campaign and rented services involving Fiat Multiplan unique car collaboration with local communities. LiveIWork London, a design firm responsible for consulting design services for FIAT, designed a blueprint of user participations involving Fiat Multiplan car as a transportation that can be rented and car pool for sustainable practice. In Malaysia, for example an involvement from car manufacturers involving in rented services for elderly to commute to desired places can be starting points of genuine partnership working. Not only a car manufacturer gaining a public awareness about their new products, they also automatically advertise and promote their products as a mutual accountability for CSR Corporate Social Responsibility.

“What kinds of data sharing and people-centred knowledge management systems are needed to underpin these more fluid, federating forms of support? Where are the opportunities to learn from the most innovative technological developments in this area?” (Sophia Parker, 2006). From the statement above an argument of people-centered knowledge management are needed and well apply to ensure a great service design innovation will be created. From this involvement people or a user and even a third party can gaining information of what might happens or what should be happen. “What task or action that should be taken and what kind of measurement instruments that need to be applied. Just to make sure a people-centered knowledge can be study, and understood and to be learn by all. “service design’s model of change is focused on creating a system able to continuously adapt, reconfigure and, most importantly, learn from itself.” (Sophia Parker, 2006).

iii. In-Between-Spaces

From a genuine partnership to federating, to privatization there is always ways of improvement and a new metrics of customer behavior measurement are proposed. There are a lots of information that can be learn and a system services are also learn from itself development. For a system to learn from its self-there is a merit in investigating in-between-spaces and try to deploy an innovative approach from insights such as a small organization to a big organizational development. In-between-spaces are a small spaces that represent a big organizational in term of wider scope. But one must study and learn from small spaces a predicament, a circumstances situation that might evolve around the in-between-spaces. A customization of user involvement and satisfaction were meant to study and analyze so that a lesson learn could lead us to something that we not expected. A result could lead to frustration but sometimes leads to simple solution but can be apply to larger organizational development.

Figure 7, Explain a co-creational value and co-design existed amongst elderly at assisted living homes where research has been conducted. *Moment of truth* “Service designers work with users to understand the critical moments of truth of a service experience – the moments shape peoples’ perceptions and responses. The points at which a person most depends on a provider are often the very points at which the provider performs least well – and it’s at these moments that someone, disheartened and frustrated, may walk away from that service never to return.” (Moritz 2005) for the assisted homes services is a normal routine activities where an elderly at mentioned assisted homes cooking together during lunch time. This is a moment where almost all elderly participated and socializing while prepared lunch. Preparation for cooking routine acquires an hour or two, from pre-preparation for instance chopping meat and cutting veggies to cooking process. Socializing meter or metric at this moment was excellent as every elderly enjoyed their cooking quality time together. This is where people-centered-knowledge can be studied and the system itself is continuously adapted by elderly and learns from itself. An *in-between-spaces* where communication existed and from small scale organizational can be apply to larger organizational, whereby this spaces can be studied and understood as it’s has been a practice for a long time. The system itself survives and evolving giving spaces of interaction and communication and somehow creating a satisfaction amongst the elderly at mentioned assisted homes. Figure 7 is an interpretation on how a system can be tailor and custom to user needs and expectation. Divided by three section started with cutting session or pre-cooking process where at this time elderly normally planning on what to cook to chopping a meat and cutting a veggies. A socializing metrics indicated that at high socializing metrics such as change stories among an elderly and poking and flirting are indicated happy expression. Meanwhile at low metrics indicated elderly tend to be angry because of less time to produce a good cooked and also sad because of there is a moment of feeling dull and lazy. Secondly, is a session of cooking where at this time elderly spend more time chit chat with friends. Most talk about issues is regarding their family and some health problems issues. Sharing a knowledge and problems are most

favorable time for elderly as they discuss an issues of financial, their glory time and things that they are good at. At high socializing metric indicated that elderly are happy with their quality time and at a same time they were playing flirting and poking each other. A coffee break time is their favorite moment where they tend to make jokes and laugh, gossiping for a women and men usually make jokes and fun. One way or another a low socializing metrics indicated that a new comers are tend to felt individually separated from the group and for others they felt sad or angry because of not participating with the cooking group as they struggle with their isolation syndrome.

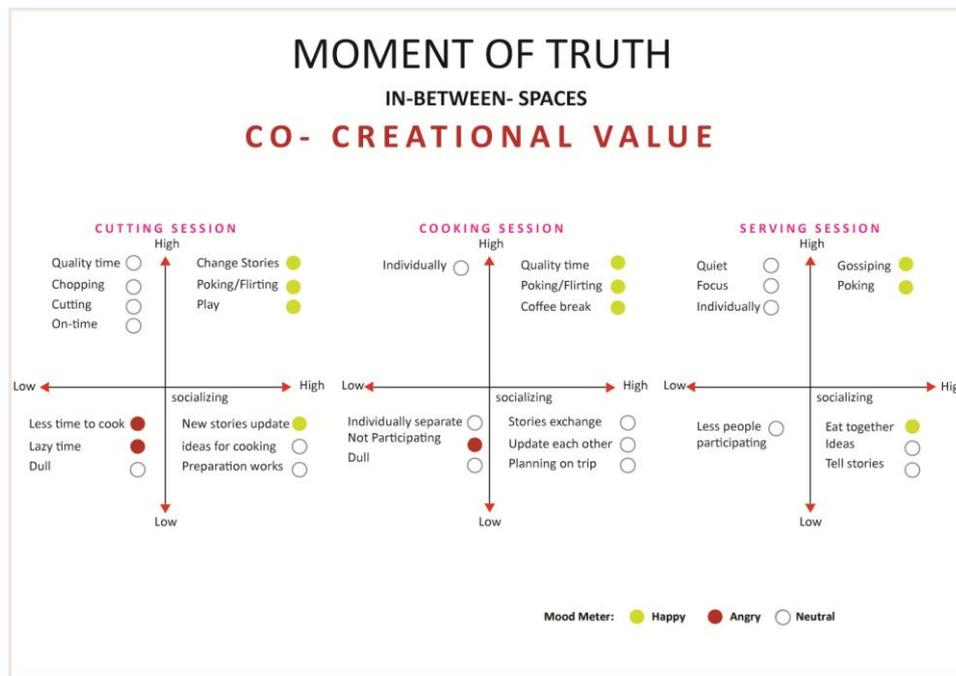


Figure 7 Co-creational value graph developed by Ramlan Jantan

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CONCLUSION

Simple activities for instance a cooking activity can be a big effort as a moment of truth for critical providers system, and it's doesn't have to be complicated and expensive to create a co-creational value whereby a user participate to design their own ways of living. From this small organizational scale activity can be adapt to lager organizational, involving revolutionize a nation system for assisted living experience. As long as a good activity can be an agent for change and be an antidote for isolation syndrome for elderly then a providers should learn from this. A customization of user experience prototype should be structure to ensure a co-creational value that existed in a system can be apply to other assisted homes as well. This action will ensure a more interaction can be find and study depended on how an elderly creating their ways of living for instance a morning exercise activity should be considered a must have activity at all assisted homes in Malaysia as it proven evoke a socializing senses amongst elderly and communication as people-centered knowledge. Temporarily, a genuine partnership working between assisted homes and non-government organizations and businesses can be a platform to channel a communication network between local community and assisted homes. Research will embark into extended challenge to better understood customer experiences towards technology driven communication,

which hopes are focus on smart homes technology and different level of connecting elderly to outside world and to local community specifically. Opportunity to explore an alternative to shorten a long distance relationship between elderly and their children is always a big exploration for research to explore. Research will continually study and learn a human nature of creating a new way of living sustainably and contributing in this area with journey to user interface.

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