Available online at www.rsu.ac.th/rjsh
RJSH Vol. 5, No. 1, January-June 2018, pp. 43-51

ISSN 2286-976X / Online: ISSN 2539-5513

Crafting a Culture of Design Innovation: Challenges & Opportunities in Thailand

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Submitted 19 May 2018; accepted in final form 11 June 2018

Abstract

Culture plays a very important role in influencing the decisions designers make in arriving at a solution to a given problem. Culture has many dimensions, those that are inherited and specific to a nation or region and those that are carefully crafted and unique to organisations that innovate through design. Both of these have an impact on the process designers employ in arriving at the final outcome, with the latter being more powerful in fostering design innovations. Models of design education currently in practice in Thailand have borrowed heavily from the West and have not been very effective in cultivating a culture of innovation. It is imperative to develop new models of education that are required to navigate the future and reimagine the skills that are necessary to suit the Thai context.

Keywords**:** *Design, design innovation, innovation, culture, culture of innovation, design education.*

1. Introduction

From the industrial age till recently, skills acquired early in one's career were sufficient for an entire working life of a typical employed person and qualities such as discipline, consistency in performing repetitive tasks with accuracy were favoured by employers. Educational programs catered to producing workers with these qualities to suit the assembly-lines in factories (Lanigan, 2007). Thailand's design education, modelled after Western art and crafts movements of the mid-20th century catered to producing designers who would fit this mold. Most graduates would seek employment in companies and those very few who did venture out to set up consultancies of their own, found themselves catering to companies that were geared to realising ideas primarily generated in the West or Japan.

However in the last two decades this has changed dramatically. Factors such as globalisation, cheap & ubiquitous technology, greater mobility of people, and easy availability of funds have resulted in new and innovative business models that have upended previous models of production & distribution of goods and providing services. In the current paradigm, economic growth relies to a large extent on the inherent creative capabilities of people living within a nation. Value is generated by the innovative capabilities of people who can design better products, services and systems and their ability to think differently in a creative but structured manner. Of course efficiency and productivity are important but they alone are not sufficient to shift to a creative economy. Education hasn't been able to catch up with this massive shift and is still catering to producing a workforce for the older paradigm (NACCCE, 1999).

The Thai economy now finds itself stuck in the middle-income trap, a phenomenon that refers to a decline in economic growth before becoming rich. Thailand had a sustained economic growth for 35 years and has attracted foreign investments in sectors like electronics and automobiles which helped the economy to transit from a labour-intensive agriculture economy to a capital-driven export oriented industrial economy which successfully integrated Thailand into the global value chain. But these early benefits have reached their natural limit and the country is losing its economic competitiveness to neighbouring low wage Asian economies. While things were going good in the last two decades, the policy makers and educational institutions in Thailand did not invest in R&D and design. As a result today Thailand has the symptoms of a middle-income trap-being unable to compete with high-tech, high value products and services from high-skilled economies like Taiwan, South Korea and Singapore and being able to supply low wage workers and compete with low cost manufacturers in neighbouring countries like Malaysia, Cambodia, Vietnam, Laos and Myanmar (Kharas & Kohli, 2011).

Developing human capital through a good educational system that results in high-skilled workers is fundamental to getting out of the middle-income trap (Jimenez, Nguyen, & Patrinos, 2012). Although Thailand has successfully invested in expanding basic schooling and numerous universities have emerged across the nation, the quality of education is still not up to the standards that are needed to help Thailand move up to the next level.

2. Background

2.1 Skills and knowledge of Thai designer and innovators.

The emphasis of the 11th National Economic and Social Development Plan of Thailand (2012-2016), was on laying the foundations to shift Thailand from what is predominantly an agricultural & industrial production driven economy to a knowledge & creativity driven economy.

Although Creative Economy appears to be the catch-all phrase that is driving many programmes across the nation, making this a success is a bit tricky. The 11th national plan recognised this and highlighted the importance of re-looking at existing frameworks for various systems such as education, financing and intellectual property protection and also emphasised that Thailand will need a creative workforce & businesses that are able to compete globally.

Keeping this in view, UNESCO led the Creative Economy Joint Partnership with the Royal Thai Government for a period of 5 years from 2012 to 2016 within the framework of the overall UN Partnership Framework (UNPAF) which comprises various UN agencies (UNDP, UNESCO, UNIDO, ILO, FAO, ITU, WIPO) and the World Bank. The UNPAF had joined hands to partner with ministries, other government agencies, private sector and civil society and has suggested a plan of action by identifying three main areas of cooperation:

1) Skills development for the creative economy
2) The development of a knowledge system for the creative economy, to provide strong evidence for policy-making
3) Strengthening the environment enabling the growth of the creative economy sector, such as legislation and relevant institutions

In 2011, while at the Thailand Creative & Design Center (TCDC) an informal, unpublished, study was conducted by the author to identify the challenges faced by Thai companies and design consultancies. It was found that most companies were still locked into the OEM mindset and didn't see value in investing in design and R&D as their design inputs were coming from parent companies located outside Thailand. External forces like globalisation, the resultant erosion of businesses due to cost arbitrage, greater exposure to recessions and such was forcing many companies out of business and they didn't know how to adapt to this new reality.

They also had no idea how to recruit or manage good creative personnel providing R&D and design inputs. The companies had a very superficial understanding of their end user's needs as the parent-multinationals would conduct deep user research to find their latent needs.

And as a result of all this, the education sector, which is always a step behind the industry, lacked a robust research culture and much of the design education was focused on styling work and the predominant approach was that of training an *'artist turned designer'* rather than that of a *'business & technology driven designer'*.

The TCDC study also found that the skills imparted by a majority of the design programmes in Thai universities were not so relevant for the needs of the current market. The graduates lacked relevant knowledge in technology & materials, and were unable to deal with complex issues facing companies today. They had insufficient depth of understanding of production & processes, and had an attitude of what the designers perceive as 'cool & trendy' and an approach that of 'I know it all'. So as a result, as far as possible, companies didn't prefer to hire Thai designers fresh from college. Either they would spend considerable resources re-training them or preferably hire foreign designers wherever possible.

2.2 Sophistication of design & innovation in Thailand

A working understanding of what design is and the role it plays in the Thai context is in order here as there is no clear consensus on what design and innovation means, as many eminent designers, individuals and agencies have differing views of what it is and how it contributes to a company and the Thai economy in general. As far as this paper is concerned, design & innovation are not seen from a purely philosophical or academic point of view, but from the pragmatic point of view of a company, where design has to yield tangible & intangible value to the shareholders, hence the UK Design Council's definitions of Design and Innovation are perhaps the most appropriate for this study. They define Innovation as:

> "Innovation applies ideas and new knowledge to the production of goods and services to improve product quality and process performance. It is a driver of renewal and growth in an organisation and hence also in the wider economy." And design is defined as: "Design shapes ideas to become practical and attractive propositions for users or customers. Design may be described as creativity deployed to a specific end."
>
> (Design Council, 2011)

Design has many roles within a company. The Danish Design Center (Design Ladder, 2015) found that there are four stages of design application within companies (figure 1 below). In the first stage, *design as styling,* is where design is seen as an aesthetic treatment or beautifying an artefact. In the second stage, *design is a function* within a company; typically companies at this stage either have a small department in-charge of design or outsource design to external consultants. In the third stage, *design becomes a process* and is well integrated into other departments such as marketing, manufacturing, distribution and sales. Companies at this stage have a well-developed internal design department and a panel of external consultants. The fourth stage where *design is a strategy*, design is not only well integrated into the company's functions but also informs strategy. At this stage a designer is part of the senior executive committee and is involved in everyday strategic decisions. The vocabulary of design strategy is very well-developed and is understood by all the other members of the senior management team and design is an essential part of corporate strategy as it yields maximum value to the company.

The TCDC study revealed that most Thai companies that use design are in stage 2, and *'design is styling'* for them. Very few Thai companies are at the third stage where *'design is seen as a function'* but there were none who applied design at a strategic level.

2.3. Design competitiveness of Thailand compared to the rest of Asia

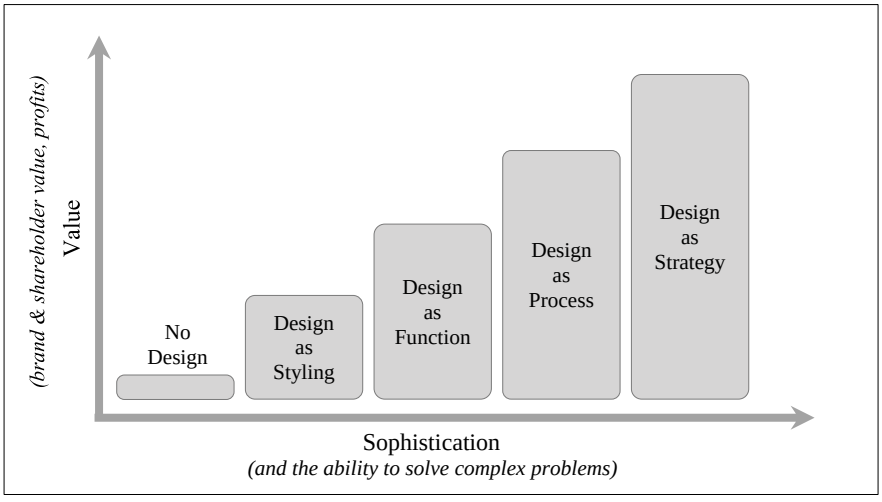

Figure 1 The Design Ladder
Source: Adapted from the Design Ladder (Danish Design Center, 2015)

Design Competitiveness is a measure of design readiness of a country, a ranking method developed by the Designium Innovation Center, a research body located within the School of Art and Design, Aalto University in Finland. Designium also conducts research on design and innovation for the European Design Innovation Initiative (EDII) and focusses on strengthening the connections between design, innovation & competitiveness. A country's design competitiveness is evaluated based on the following seven factors (Global Design Watch, 2010):

- Company spending on research and development: Companies in the country (*1 = do not spend money on research and development, 7 = spend heavily on research and development relative to international peers*)
- Nature of competitive advantage: Competitiveness of the country's companies in international markets is primarily due to (*1 = low cost or local natural resources, 7 = unique products and processes*)
- Value chain presence: Exporting companies in the country are (*1 = primarily involved in resource extraction or production, 7 = not only produce but also perform product design, marketing sales, logistics, and after sales services*)
- Capacity for innovation: Companies obtain technology (*1 = exclusively from licensing or imitating foreign companies, 7 = by conducting formal research and pioneering their own products and processes*)
- Production process sophistication: Production processes use (*1 = labour-intensive methods or previous generations of process technology, 7 = the world's best and most efficient process technology*)
- Extent of marketing: The extent of marketing in the country is (*1 = limited and primitive, 7 = extensive and employs the world's most sophisticated tools and techniques*)
- Degree of customer orientation: Firms in the country (*1 = generally treat their customers badly, 7 = are highly responsive to customers and focuses on customer retention*)

The most current design competitiveness study was done in 2010 and Thailand ranked 42 globally (Figure 2 below). Thai companies rank lowest in Asia in R&D spending and Innovation, factors that are directly related to the design function within a company. As it is well understood by now that companies that have innovation very high on their agenda would also spend more on R&D and invest in 'strategic design' to be able to create better products and services.

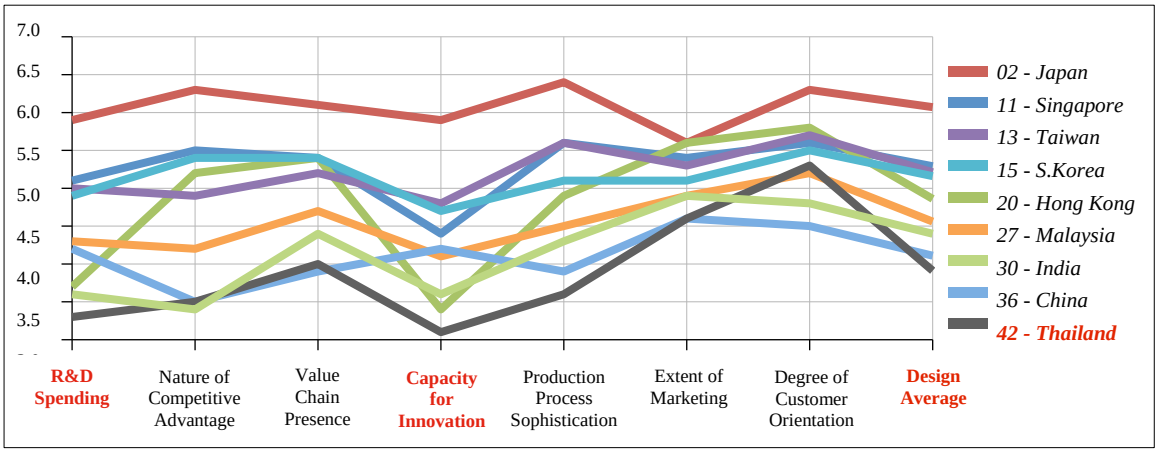

Figure 2 Design competitiveness of Thailand
Source: Designium (Global Design Watch, 2010)

3. Culture and it many dimensions related to design & innovation.

Culture is a rather difficult term to define, and there are multiple understandings with multiple theories to support and in spite of many efforts by anthropologists and linguists there is no clear consensus on what constitutes culture (Spencer-Oatley, 2012). For the purpose of this paper we will take two very robust ideas of what constitutes national & work culture. Professor Shalini Venturelli and the Dutch social psychologist professor Geert Hofstede's definitions and theories help us build an effective argument on how culture and its relationship with design innovation can be carefully crafted.

Shalini Venturelli posits that we inherit ideas regarding cultural dimensions of modern life from three traditions of the Aesthetic, Anthropological and the Industrial & Commercial Tradition (Venturelli, 2000). According to Venturelli, the Industrial & Commercial Tradition has become the foundation of modern culture(Figure 3 below).

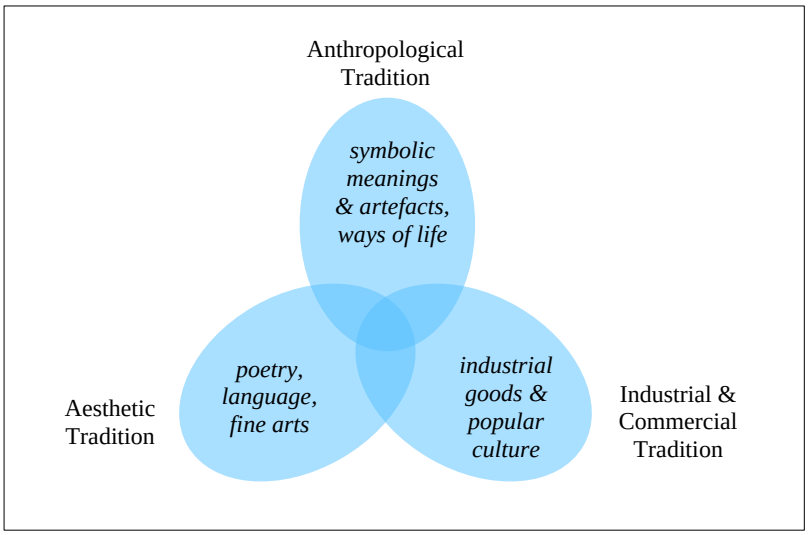

Figure 3 Three dimensions of culture
Source: From the Information Economy to the Creative Economy (Venturelli, 2000)

A quick survey of Thai design and products reveal the design output of are heavily reliant on the aesthetic and anthropological tradition in Thailand (Ipsos, 2017), with very few products emerging out of the industrial tradition where maximum value is created. Designers tap into these three dimensions of national culture to develop products for modern consumption. However, in order to produce really innovative and original products and services the mindset that is required and the work culture that fosters original ideas is absolutely necessary.

Numerous studies have looked at individual traits and organisational cultures that make some companies very successful in commercialising original, innovative and creative ideas while at the same time many companies struggle to make a profit with their very similar looking, unimaginative offerings. To name a few, Walter Isaacson, in his book The Innovators (Isaacson, 2014), Clayton Christensen et al. in their book The Innovator's DNA (Christensen, Dyer, & Gregersen, 2011) and Tom Kelley in his book Ten Faces of Innovation (Kelley, 2006) have described the qualities and behavioural patterns that are required to be innovative.

There are two aspects to be a successful innovator, original thinker or designer. The first is the skill of becoming innovative, which is a bit difficult to learn, but it is possible to be taught and learned through sheer practice and diligent work. The other aspect is the mindset of a highly successful designer and innovator, which is influenced by the way we think & work. These mindsets and patterns of thinking and interacting with the external world are established by our collective experiences of our upbringing, growing up, living and working within a society, and our beliefs, motivations and social norms.

Geert Hofstede, well known for his pioneering research on cross-cultural groups and organisations, has identified the effects of society's culture on the values held by people within that group or society and how these values relate to our behaviour in the workplace. He defines culture as the *"collective programming of the mind that distinguishes the members of one group or category from another."* (Hofstede, 2010). He has identified six dimensions of national culture that influence attitudes to work. He calls them Power Distance Index (PDI), Individualism (IDV) vs. Collectivism, Masculinity (MAS) vs. Feminism, Uncertainty Avoidance (UAI), Long Term Orientation (LTO), and Indulgence (IND). For the sake of comparison, the rankings for Thailand and USA in each of these dimensions are as below (figure 4 below).

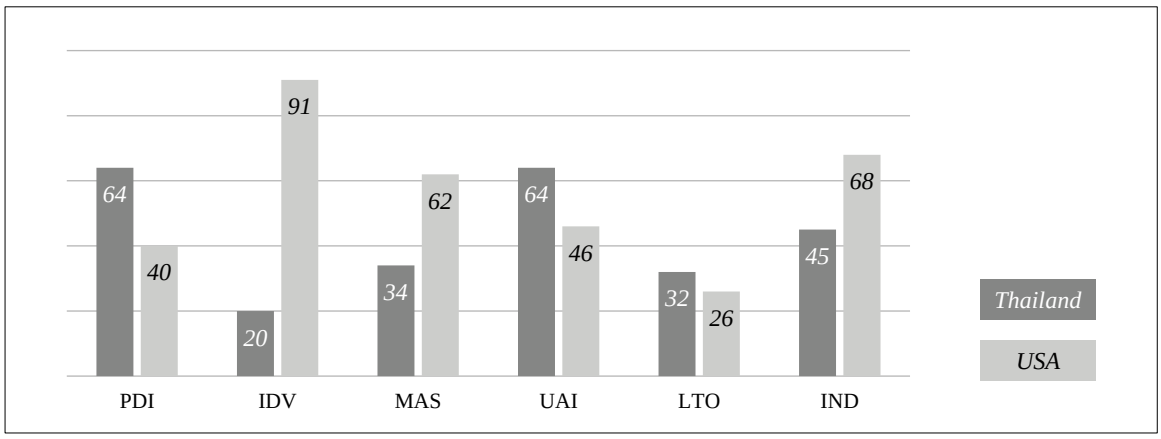

Figure 4 Comparison of Hofstede Dimensions of Thailand & USA
Source: https://www.hofstede-insights.com, accessed 3rd April 2018

Power Distance Index (PDI) is the inequality in distribution of power within powerful members and less powerful members of a society or organisation.

- Thailand Ranks 64 which indicates a strict chain of command and protocol is observed resulting in paternalistic management and information flow is always top-down and controlled.
- USA has a low power distance score of 40, indicating that information flow is freer and hierarchy is only for functional purposes and communication is direct and informal.

Individualism (IDV) is the degree of individuality that is accepted where individual members of a society look after themselves and express their opinions freely, compared to a collectivist society where members belong to groups and take care of each other and personal relations are valued more and confrontation is avoided at all costs.

- Thailand's score of 20 indicates it is a highly collectivist society, which manifests as long-term commitments to members of the group, Thai are non-confrontational, and hiring and promotions are based on connections and recommendations.
- USA with a score of 91, is one of the most individualistic cultures in the world. Americans are not shy and interact well with people they don't know. In a business context, employees are expected to be self-driven and take initiative and hiring and promotions are based on merit and quality of work.

Masculinity (MAS) is the dimension that indicates the competitiveness of the society. A high score (masculine) indicates this society is competitive, driven by success and winning. A low score (feminine) indicates the society values feminine qualities of caring for each other, quality of life is the sign of success in life and standing out from the crowd is not admirable.

- Thailand scores 34 on this dimension and is thus considered a feminine society and has the lowest ranking among the Asian countries (average 53) and the World average of 50. This lower score indicates Thai society is less assertive and competitive.
- In contrast the US score of 62 indicates Americans try to be the best they can be, and they have a 'can do' mentality which creates a lot of dynamism in the society.

Uncertainty Avoidance (UAI) is the dimension that indicates the extent to which members of a society deal with ambiguous or unknown situations and have crafted ways to avoid these situations and deal with anxiety of the unknown.

- Thailand scores 64 on this dimension, indicating that uncertainty is avoided and in order to minimise the level of uncertainty strict rules, laws and policies govern the society with the ultimate goal of controlling everything in order to eliminate uncertainty as a result, change is not readily accepted and the general population is very risk averse.
- The US scores 46 on this dimension, indicating a fair degree of acceptance of new ideas, innovative products and willingness to explore something new or different. They are more tolerant of new ideas and do not require many rules and regulations to govern them.

Long Term Orientation (LTO) is defined as the degree to which a society maintains links to its past while at the same time is able to deal with the challenges of the present and future. Different societies prioritise these existential goals differently and normative societies are those that score low in this dimension. They maintain time honoured traditions and norms and while those that score high are those that take a pragmatic approach and prepare for the future by saving and investing in education.

- Thailand has a low score of 32 indicating that Thai people are more normative than pragmatic. They exhibit great respect for traditions, find it very challenging to establish the absolute truth, don't save money for the future, are short-term oriented and want quick results.
- On this dimension USA scores a low 26, indicating it is very normative and are extremely short term oriented and individuals strive for quick results in the workplace.

Indulgence (IND) is the degree to which members in a society are able to control their desires and impulses. So the opposites on this scale are 'indulgent' societies with very weak control and those that have a strong control are categorised as 'restrained'.

- Thailand's score of 54 on this dimension does not allow us to determine any preference of either restraint or indulgent.
- USA on the other had scores 62 on this dimension is a very indulgent society. They work hard and play hard.

Looking at the scores of Hofstede's dimensions, it appears everything seems to be pitted against Thailand form becoming a creative and innovative society. Thailand has a very hierarchical society where information flows top-down and the paternalistic management style allows for members lower in the pecking order to be forgiven, there by not making them accountable for any omissions or mistakes. This leads a perpetual cycle of less than desirable ideas and solutions to go through. The Western culture of individuality and accountability weeds out inferior ideas very early in the process.

Highly successful creators, designers & innovators are known to take risks and never balk at failure, instead failure spurs them to take greater risks by explore, experimenting and fail over and over again. A collectivist culture on the other hand avoids dissonance of any kind. Failure in Thai culture is seen as losing face so anything that might involve failure and risk-taking is avoided.

A low masculinity score means that Thais are not assertive and competitive and it results in very low levels of dynamism in the society. Avoiding uncertainty and not being able to tolerate ambiguity results in lots of time spent in getting a good grasp of minute details about tangible and concrete ideas; while anything abstract or ambiguous is quickly termed as 'difficult' or 'serious' and quietly set aside.

Low long-term orientation score indicates work is always short-term oriented with an expectation of quick results and not engaging in long-term strategic planning. Not having a long-term plan, also results in not having lasting results.

All these indicators seem to go against the common understanding of the right cultural mix that is necessary in a society or organisation to foster design innovation. Helen Spencer-Oatley however cautions against relying on characterisation of whole cultures (eg: masculinity or individuality) to predict the creativity or innovativeness of individuals. Quoting Hofstede (1980) in what he calls as *'ecological fallacy'* she suggests that many researchers fall victim to generalising values that characterise a nation and assume that they might be applicable at an individual level. She illustrates her point by stating that individuals such as Steve Jobs at Apple, USA and Richard Branson at Virgin Airlines, UK who come from nations whose values favour low-power distance for example, have built highly successful corporations with high power-distance hierarchies.

Researchers from University of Southern California, Imperial College London, and the University of Minnesota found that radical innovation to be the most important driver of growth, success and wealth creation of firms and nations (Tellis, Prabhu, & Chandy, 2009). They studied 759 companies spanning 17 nations which included 8 large economies in the world; (USA, China, Japan, India, Germany, UK, France & Italy), 4 countries which have developed rapidly propelled by innovation (Taiwan, Hong-Kong, Korea & Singapore) and 5 countries with known major innovative or multinational firms (Canada, Switzerland, Netherlands, Sweden & Australia.). Of the four major drivers of innovation within a country (figure 5 below), they found that the internal culture of a firm is the strongest driver of radical innovation across nations.

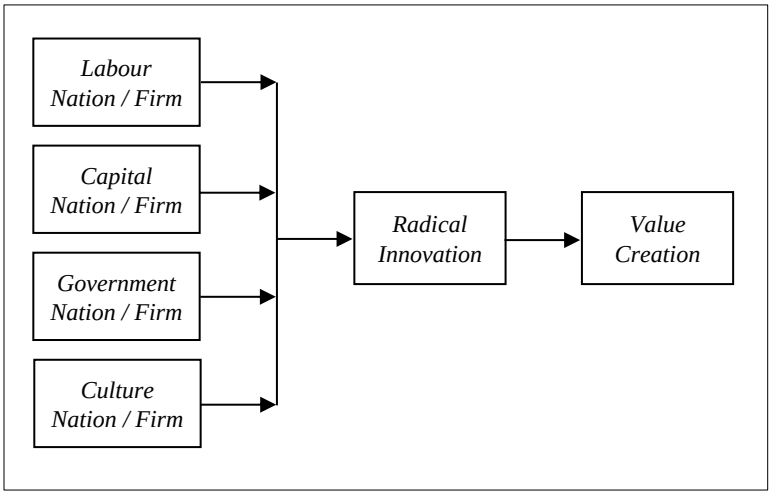

Figure 5 Framework of drivers of radical innovation and value creation
Source: Radical innovation in firms across nations (Tellis et.al, 2009)

They posit that the culture of a firm is a uniquely human product and develops slowly within a company, is tacit and is not easily transported across companies. They found that these companies have three common attributes, which are willingness to cannibalise assets, future orientation and tolerance to risk. Willingness to cannibalise assets is the attitude of reviewing currently profit making assets and cannibalise them in order to place resources into future oriented innovations.

In summary, design driven innovation can generate tremendous value for a company and eventually the country. In order to be design driven, the culture that supports tolerance to radical ideas, risk taking, and continually generating new ideas is necessary. Crafting such a culture takes careful planning a long-term nurturing of innovation & design to generate value.

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