THE NEED FOR DESIGN THINKING IN BUSINESS SCHOOLS – A Review

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The paper discusses the need of incorporating design thinking into the current business school education system. It enumerates the characteristics of design thinking and links them to studies done in the field of cognition. The article then goes on to evaluate how the skills and methods provide by a design system of thinking can address the shortfalls of the modern business school education. The authors outline how students graduating from business schools are ill equipped to face the uncertainties of real world and business problems where the means-end relationships are unknown. This is because of our sole reliance on analytical abilities. Design thinking on the other hand provides us with an approach for dealing with complexities and ill-defined problems.

The need for Design thinking to be made a part of the management pedagogy was highlighted by Herbert Simon, distinguished scholar and a B-school administrator. Simon asserted on the fact that professional schools (including management schools) should ideally be concerned with 'what ought to be' in contrast to pure sciences which are concerned with explaining 'what is'. He differentiates between analysis – pure science, and synthesis – professional courses. Made necessary at the time of WWII, certain skills forecasting, planning, rational decision making, and co-ordination have been more in demand and hence been a focus of management studies in B-schools. Academic researched in the late 1950s, presented management studies as 'adrift, engaged in narrowly focused vocational training aimed at preparing students for a first job'. In the pursuit of academic legitimacy, the business schools adopted the analytical paradigms used by other academic disciplines like sciences or economics. In conjunction with this, considerable emphasis was laid on rational-academic approach to decision making. A number of decision making models were thus created, which also found a fair degree of success and hence demand in the business world. Important innovations in finance and operations research, including option pricing and risk management, linear programming models for constrained resource allocation, and queuing theory are examples of analytic procedures developed through business school research, taught in business schools, and implemented in business practice.

The articles explains three types learning i.e. exploitative, exploratory and discovery. Exploitative learning consists of rational calculative processes, effectively used to leverage existing knowledge for purposes of product refinement, production, and efficiency. Exploratory learning involves flexibility, discovery, and innovation, requiring an adaptive feedback model. Discovery skills include questioning, observing, experimenting, networking, and associative thinking. In order to associate the analytical approach with design thinking Mintzberg proposed a framework depicting management practices as a combination of arts, craft and science, where the 'science' is about systematic analysis, the 'art' component deals with comprehensive synthesis based on creative insights and imagination, the craft component is based on practical experience, emphasizing iterative decision making and dynamic learning in the form of actions and experiments.Thus the overemphasis on analytical thinking and problem solving takes away the need to be open to other's perspectives. Business school education has been found to be making managers more restricted in their scope of understanding how their business decisions will be impacting other people's lives, effectively turning them into more selfish, detached and disinterested actors.

While business school education equip the students with the functional business knowledge using a pedagogy of lectures and case studies, it is the opportunities provided in practical implementation in the real world challenges where it leaves the students wanting. The article advocates the need to incorporate a clinical educational component in business education, coupled with opportunities to solve complex problems, in order to be an effective educational process. This seems much like the fieldwork programs that we, as students of TISS have been provided with in addition to the conventional lecture and case study methods of teaching. Action learning methods are applies to aid retention and application of theories taught in the classroom. But little exposure of unstructured and messy situations is provided such that managers in the making work through active experimentation and reflective observation to resolve complex issues.

Design thinking in the present day is mostly thought to be associated with design related fields like product design, architecture, engineering, and urban design. However, slowly it has been applied to other non-conventional areas like design of digital interactions, design of services, design of business strategies and social policy. Thus creating a need to articulate design methods and tools to facilitate understanding for practitioners outside of conventional design fields, especially business managers. Design processes differ from scientific processes in their characteristic nature. The first difference is the definition of the problem itself. Design problems are 'wicked' problems i.e. ill-defined and ill-structured, and the problem definition is not static but it co-evolves with the definition of the solution as the clients do not know what they want until they see what they can get. Also, actions might not be preceded by a detailed and exhaustive thought process, in-fact it is through actions that the practitioner draws feedback to better define the problem and iterate the actions taken. This also brings forth constraints such as price, performance and ease of use of the solution which are presumed to be well defined in an analytical problem solving method. Design solutions are also a lot more subjective and depend on the users' judgement based on the suitability to their needs as being better or worse rather than being right or wrong like a scientific solution. Thus, ethnographic research is often used to understand the users' needs and requirements.

Designers predominantly convert information into images to get a more concrete interconnection of signs, things, actions and thoughts through the use of sketches, blueprints, flowcharts, graphs, and three dimensional models extending to mental imageries and nonverbal thoughts along with generating prototypes. In order to assimilate design thinking into the non-conventional design fields, it is important to establish a greater dialogue between design thinking processes and empirical design studies to facilitate a theoretical integration between the two. The article cites research to contrast management practices of 'management by objectives' to 'management by discovery' wherein it is identified that there are two ways in which performance can be improved. The 'management by objectives' paradigm relies on error reduction by analytical techniques and formalization of processes to minimize variation, whereas 'management by discovery' uses insights involving pattern matching and associative reasoning building on tacit knowledge. Cognitive research has brought forth the existence of two distinct processes of thinking i.e. system 1 thinking which is fast, effortless, intuitive and automatic and system 2 thinking, a conscious reasoning process which is relatively slow, requiring high levels of attention and effort. Design thinking can be seen as addressing the development of system 1 impressions allowing new observations to occur and novel connections to be made between them.

Hence Design thinking provides with a source of business competitiveness by promoting innovation as well as creating new alternatives to organizational issues. Methods by which it can be incorporated in Business studies is through project based learning by throwing design challenges of the business world to multidisciplinary teams, providing opportunities of primary field learning. Active experimentation is another method where sketches, prototypes, and simulations are used to aid in sense making and building conversations with the end user. By learning the methods of observation, visualization, and ideation, and applying them in a process of active exploration and feedback, students gradually develop the confidence to work with such challenging and messy problems.

Design thinking can be incorporated in a wide variety of subjects such that it becomes part of the business school curriculum. Strategic Management, for an example, which is viewed as a design process relies heavily on rational planning and analysis leaving a lot of scope for inclusion of adaptive learning. Entrepreneurship is another subject which calls for the use of business modelling and creating prototypes to tap the advantage of feedback to avoid mistakes in actual ventures. A 'Visual Canvas' is an effective tool used in this regard. In the field of information technology, the 'agile software' movement has emerged as a robust alternative to rational-analytic methodology. The very heart of marketing lies in understanding the customer's needs which is consistent with design thinking's emphasis on developing a deep understanding of the user.

Design thinking provides students opportunities to cycle through the processes of active experimentation, concrete experience, reflective observation and abstract conceptualization which form the cycle of effective learning as proposed by Kolb. It requires the students to get out of the classrooms and learn from real business world problems becoming more effective in their ability to associate practicality with theories and provide suitable solutions and implementation of such solutions. A pedagogy including such externally oriented activities would fill in the gaps in the current management education systems.

In the existing system of business education compulsory internships in some way address the need of exposing students to the real world business problems in an unstructured manner wherein they do get regular feedbacks on their approach to the problem. However, a 2 month internship program does not suffice or eliminate the need of more such opportunities to be created for students in order to direct them towards design thinking system. The situation is compounded by the problem that most of the B-schools do not even bring the concept of design thinking into their classrooms making the students adept with a conscious understanding of this process and the students thus end up using this process intuitively as trial and error and not completely understanding its potential or credibility of such a thought process. The need is to familiarize students with this concept in order for them to even acknowledge this as a potential alternative to analytical thinking.

The paper thus brings forth a very compelling issue in business school education which needs to be addressed with utmost urgency and with sustainable interventions to make this change effective.