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**EXPLORING BUSINESS ECONOMICS (BE) -KNOWLEDGE  
STRUCTURE AND THRESHOLD CONCEPTS**

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**Abstract**

This paper reviews a suite of articles to explore Business Economics as a discipline in business studies. The first objective of this paper is to explore the discipline in terms of its knowledge structure, based on situated knowledge of learning and teaching business economics in business studies course. The second objective is to establish threshold concepts in business economics and the challenges therein. By defining the hierarchical knowledge structure and integrative nature of the business economics subject through concept mapping, this paper explores the embedded threshold concepts in curriculum.

**Keywords:** Business Economics, discipline, knowledge structure

**Introduction**

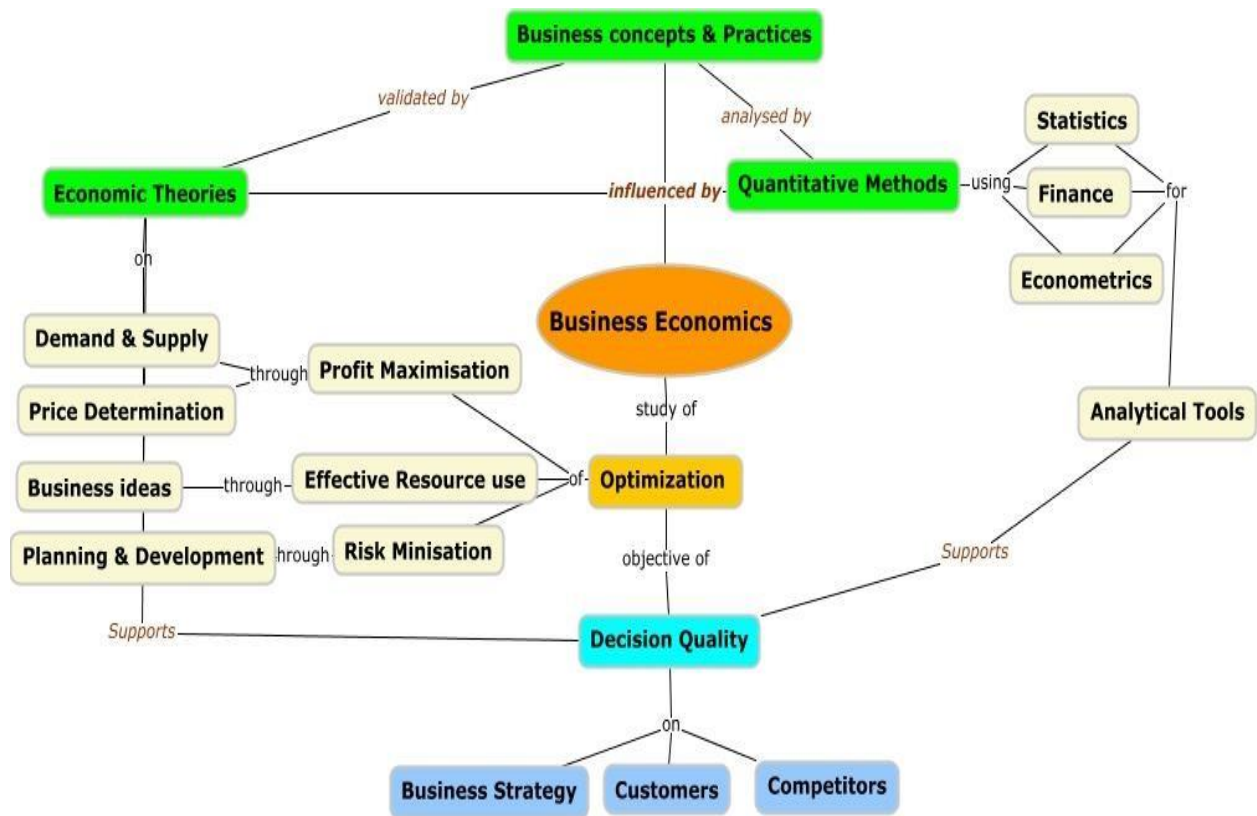
Business economics (BE) is a study of the application of economic theory and methodology to business administration (Brigham & Pappas, 1974). Over the years' business economics gained popularity as an applied business subject (Bachan, 2006) and it is studied as a centralised discipline underpinning specialised economics course or as a subject in integrated business courses like business administration and business management (QAA, 2007) in undergraduate and in the masters programme. The aim of business economics in an undergraduate business course is to enable the student with the thorough understanding of business decision-making process in terms of firm's profit maximisation objective (Friedman, 1990) (Jones, 2004) (Dwivedi, 2008). Hence, the understanding of fundamental economic theories and concepts are of great value in BE curriculum, as several of these concepts create value addition in practical business decision quality. This paper attempts to provide a twofold perspective of business economics in terms of knowledge structure (through concept mapping) and threshold concepts of business economics as a subject, by considering the different forms of knowledge, the way in which it is related and the relevant core concepts in it as a discipline.

**Business Economics –knowledge structure**

Regarding discipline structure, economics is broad and well-established among the social and behavioural sciences (QAA, 2007). Business economics, a growing and popular sub-discipline of Economics is also considered as a behavioural science as it explains the theories of decision-making based on human behaviour (Simon, 1959) (Allhoff, 2009). In courses like business studies, business economics is rendered as a mix of business relevant economic theories, business practices and quantitative methods from 'finance, econometrics, and statistics' (QAA,

2007, pp. Sec 2.2, page 1). The objective behind this integration is to equip the learner with the knowledge of macro and micro factors of business environment and the methods of analysing it objectively for enhanced business decision quality (Hui, Siu, & Ching, 2013).

The perspective of an individual academic, to structure a discipline will differ from others based on how well the subject is acknowledged and situated objectively (Biggs & Tang, 2007; Luckett, 2009). Figure 1, concept map on business economics is an attempt to show the knowledge structure of business economics in terms of its objective of profit maximisation decision. The concept map drawn is based on the situated knowledge of learning and teaching business economics in business studies course.



The objective behind developing this map (figure-1) is to provide a visual representation of the relationship between economics and other disciplines to understand economic concepts of profit maximisation, (Moschandreas , 2000; Dwivedi, 2008; Dransfield, 2014) efficient resource use and risk minimisation. (Biggs & Tang, 2007) and (Kinchin, Visualising Powerful Knowledge to Develop the Expert Student: A Knowledge Structures Perspective on Teaching

and Learning at University, 2016) proposes that the structure of the curriculum should supplement the end goal of deep learning and improvement of subject skill. The business knowledge and expertise of a business economics alumina will depend on how well the business economics curriculum has enabled him/her for a better management of the business for decision quality on business strategy, customers and competitors.

The green shaded boxes show three main disciplines which influence Business Economics. The relationship of business economics with its parent discipline Economics and other related disciplines like Finance, Econometric and Statistics are for the common ground of analysis of enterprises backed by proven theories and analytical tools. Business Economics is the study of optimisation of profit, resource and risk. The map attempts to show how the concepts of business economics are derived based on this linear and integrated relation lead to a hierarchical structure of knowledge of applied methods to the ultimate objective of decision quality on three areas- business strategy, customer and competitors. It is understood that business economics derives its concepts from both economics and quantitative methods and serves as a bond between these disciplines for business management decisions.

Given the integrated relationship between the knowledge structure, business economics subject has the economic theories based conceptual building blocks which are inevitable for in-depth knowledge of the discipline. According to Kinchin (2016, p. 324) acknowledgement of the ‘linear and networked knowledge structures’ may help in the advancement of ‘authentic pedagogy of higher education’ that focuses on the transformation of knowledge. This means that the division of the subjects in the first-year curriculum along with a good grounding in economic theory and mathematical skills are required throughout the studies. The focus of second-year should be on different aspects of economics – micro, macro, industrial economics and econometrics and the final year on the economic aspects of business strategy and international trade.

Therefore, it can be deciphered that business economics possess a hierarchical knowledge structure as the economic theory counts both for the ‘imaginative conceptual projection’ and ‘empirical power’ of the projection through quantitative methods (Bernstein, 1999, p. 164). With the various forms of knowledge available in business economics, which uses general economic theories and quantitative methods, there is an integration of different knowledge structures at the lower levels, regarding factors contributing to profit maximisation of a firm and thereby shows an underlying uniformity on profit maximisation decision. Learner thus can identify an integration of concepts operating more at the abstract levels regarding business profit maximisation which very well agrees with the concepts of ‘integrating code’ produced by the knowledge structure (Bernstein, 1999, p. 162).

### **Business Economics – Threshold concepts**

Meyer and Land theory on Threshold Knowledge describes “the core concepts” as once understood, transform the understanding of a subject in a contestable way (Meyer & Land, 2005). Threshold concepts equip the students with a useful framework to diagnose the

fundamental concepts which in turn will empower them to explore the subject from a disciplinary perspective (Kinchin, *Visualising Powerful Knowledge to Develop the Expert Student: A Knowledge Structures Perspective on Teaching and Learning at University*, 2016). With the hierarchical structure of business economics, understanding of threshold concepts allows the students to make sense and relate many complex ideas within the discipline as well as improve the learner's communication of discipline-specific terminologies (Flanagan, Taylor, & Meyer, 2010; Meyer & Land, *Threshold Concepts and Troublesome Knowledge: Linkages to ways of Thinking and Practising within the Disciplines*, 2005).

Economics is one of the disciplines used for the initial research into the theoretical approach of threshold concepts. Within Economics, various threshold concepts are identified by (Shanahan, *Threshold concepts in economics*, 2016) (Davies & Mangan, *Threshold Concepts in Economics : implications for teaching , learning and assessment*, 2009) (Shanahan, Foster, & Meyer, *Operationalising a threshold concept in economics: A pilot study using multiple choice questions on opportunity cost*, 2006), (Karunaratne, Breyer, & Wood, 2016), (Davies & Mangan, *Embedding Threshold Concepts: from theory to pedagogical principles to learning activities*, 2006), (Cousin, 2006) and so on, using Meyer and Land's (2005) explanation of threshold concepts. The US Council identifies 51 key concepts for Economic Education, and 34 economic concepts identified for learning standards by the Australian Federal Government Office for Learning and Teaching follows closely with the UK exercises of 2000, 2007 and 2015 learning benchmarks for economics departments. (Shanahan, *Threshold concepts in economics*, 2016). The most familiar threshold concept in business economics is the opportunity cost (Davies & Mangan, *Embedding Threshold Concepts: from theory to pedagogical principles to learning activities*, 2006) (Shanahan, Foster, & Meyer, *Operationalising a threshold concept in economics: A pilot study using multiple choice questions on opportunity cost*, 2006) which is the basis for the choice of alternatives. Concepts of elasticity, margin, comparative advantage, real nominal, partial equilibrium, economic modelling-ceteris paribus, general market equilibrium and so forth, are considered in the family of threshold concepts (ETC discussion, 2005). The various threshold concepts of business economics are in line with the hierarchical structure of the discipline and are integrated into an understanding of the profit decision-making process.

According to Meyer and land (2003) threshold concepts are integrative, transformative, irreversible, troublesome and bounded that give learners a portal to view scenarios that they will experience and a curriculum designed around the threshold concepts will enable the students to be better equipped to utilise these transformative and integrative concepts to approach dynamic problems. Among the five characteristics of threshold concepts- integration ('exposing the previously hidden interrelatedness of something' (Meyer & Land, *Threshold Concepts and Troublesome Knowledge: Linkages to ways of Thinking and Practising within the Disciplines*, 2005, p. 373) is the most significant character for business economics given the nature of its relationship with other disciplines and based on the conceptual array for an integrated code of profit maximization (SRHE, 2006). It also converses with the many economist's definitions of business economics as an integration of economic theory with

business practice for facilitating decision-making and planning management (Mc Nair & Meriam, 1941) (McGutan & Moyer, 1975) et al.

The second most important characteristic relevant to threshold concepts in business economics is transformative ('occasioning a significant shift in the perception of a subject' (Meyer & Land, Threshold Concepts and Troublesome Knowledge: Linkages to ways of Thinking and Practising within the Disciplines, 2005, p. 373) feature. The distinction between nominal and real values, price and cost, investment and savings, stocks and flows, income and wealth, etc. once understood creates personal transformation for the learner and creates integration with ideas from the discipline. On the other hand, the acquisition of the theoretical perspective of threshold concepts of partial vs general equilibrium, welfare and opportunity costs enable the learner with the integrated and transformed understanding of other disciplines (e.g. Accounting and Statistics) ideas. For example, NPV, ARR, Payback period and IRR in management accounting for investment analysis has significant relation with opportunity cost- the cost of next best alternative forgone. Largely, the undergraduate students who study opportunity cost in the first year have a better understanding of the above management accounting methods in the later part of the undergraduate course.

Meyer and Land (2003) (2006) propose that threshold concepts integrate, transform and set boundaries to the discipline and probably are irreversible and troublesome (Perkins, 2006) for the learner. In the case of business economics, the notion of 'troublesomeness' (Davies & Mangan, 2009, p. 4) is significantly involved in the development of the idea of money (usually identified as income) and investment (generally designated as saving). It is a troublesome knowledge which they need to revise given the more precise use of concepts in economics context of usage. Another example is understanding the concepts of marginal revolution, for which initial learning of the concepts of marginal cost, utility, revenue, etc. to define and understand the relevant knowledge areas of marginality or incremental change.

### **Challenges in establishing the Threshold Concepts**

According to Meyer and Land, understanding of threshold concepts of any discipline thereby leads to a privileged or dominant view of subjects which were previously inaccessible. Given the relevance of threshold concepts or the fundamental economic concepts in business economics, it can be understood that designing teaching and learning materials that reflect these aspects of integration and transformation is an important design principle (Davies & Mangan, Threshold concepts and the integration of understanding in economics, 2007).

### **Scatteredness of threshold concepts in the curriculum**

However, the threshold concepts in business economics are not openly addressed in entry-level economics courses and are scattered throughout the curriculum or omitted if taken under integrated course. For instance, as mentioned in the conceptual map (figure 1), competition and markets are core concepts of business economics for achieving the objective of decision quality and it is foundational for an undergraduate student for deeper learning in the subject. It is

unstated that the above topics are included in the second year of study and at times skipped from the syllabus if business economics is taken off in integrated courses. It, in turn, creates a gap in understanding related knowledge areas and inefficiency for practical application. As noted by Meyer and Land (2003) the disadvantage of this approach is that the learner could not be presented with an opportunity to understand the threshold concept itself and thereby incapable of applying their knowledge in varied business situations and prospects. By integrating the business economics concepts (as in figure1) and threshold concepts like competition and markets within the first year curriculum, the undergraduate student will be equipped for further areas of business economics like business planning and design business strategy in their final year of study.

### **Liminal State of understanding threshold concepts**

Among the students taught in business studies, there is substantial heterogeneity in the level of knowledge and understanding the discipline, and it is common that a few students find it hard to get a grasp on specific sections of the curriculum (Meyer & Land, *Overcoming Barriers to Student Understanding: Threshold Concepts and Troublesome Knowledge*, 2006), which leads a disintegration from the subject. Understanding Business Economics in its true practical sense is difficult, and the students tend to learn it by heart instead of understanding the concept behind it. This justifies the why it is troublesome for at least few students and why teachers need to consider what ideas are troublesome for some learners, as well as find how to make this knowledge less troublesome to these learners (Land et al., 2005). The need of a student who is to arrive at economic literacy should be consistently directed, without diversion, toward integration into a method of thinking about matters of economic interaction. (Philbrook, 1957).

An example to mention in this context is, the trade theory of comparative advantage which propounds that it is advantageous for any country to produce more of those good which has a lesser opportunity cost. Without attaining a thorough knowledge of opportunity cost, one of the most important threshold concepts, students could in a limbo state of understanding (Karunaratne, Breyer, & Wood, 2016) about the theory of comparative advantage even if taught in depth. Opportunity cost is taught to the students in the first level of business economics, and this limbo state of not understanding the comparative advantage theory using opportunity cost is mainly since the students possess business economics specific knowledge and content, however they are unable to either use this knowledge on a transformative or integrative way (Meyer & Land, *Overcoming Barriers to Student Understanding: Threshold Concepts and Troublesome Knowledge*, 2006). Given the scenario it can be assumed that a student graduating from a business economics course may have little or a superficial understanding of an essential threshold concept (Ward & Meyer, 2010) without grasping the “underlying game” (Perkins, 2006, p. Ch.3). It calls for an approach to evaluate the business students’ thorough understanding of threshold concepts to check whether they crossed the threshold or remain in the “liminal state” (Meyer & Land, 2005, p. 376) (Cousin, 2006, p. 4).

### **Low focus on business practical side**

With a given background of interrelation with other disciplines and strong economic theory-based conceptual structure, understanding the threshold concepts in business economics shall provide the student with a useful understanding of the subject with a wider practical focus. For example, to have a perfect knowledge of the money market, it is vital that the student understands the real vs nominal distinction and partial equilibrium analysis. Same with equilibrium and opportunity cost which is the basis of choice of alternatives, investment analysis, comparative advantage, welfare and optimal resource allocation. For instance, it is noted that, in Asia the business students concentrate more on the fundamental business economic concepts with a greater gap in experiencing the practical side of it. However content wise, they prove to be very knowledgeable. In the, the European system more focus to problem-based learning is given while the Asian system concentrates on the fundamental conceptual learning. The practical focus of business economics is of great relevance for the students in attaining tangible skills to find employment (Barnett, 2000).

### **Conclusion**

Business economics (BE) is a popular and highly applied subject which has a perfect place among the business studies courses. The integration of BE with other disciplines and the ultimate objective of decision quality on profit maximisation has provided the subject with a hierarchical structure. The subject uses various threshold concepts which are fundamentally integrated and transformative. Threshold concepts in economics are useful for curriculum design and support the view of an active learning of core concepts as indispensable for the thorough understanding of the subject. The hierarchical knowledge structure and the integrative nature of the subject should be better used in business economics for embedding threshold concepts in the curriculum.

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