Internetization Management and International Trade Theories: The Needed Connection

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Abstract: Increasingly, the competitive nature of the business environment forces firms to pursue different paths to become international trade players. Scholars seek to explain increase of the cross-boarder trading by proposing different theories. There are already well-established theories of international trade. A legitimate question related to this issue is how the tools of the new economy have altered the validity of these theories. The analysis done by Adli Abouzeedan showed that some of these theories would be invalid in the new economy while others are still applicable. However, we need to look at how the Internetization Management paradigm can help us to understand the way the macroenvironement of economy can be coupled with the micro one while taking sustainable developement in consideration. In this article, I tried to accomplish this by relating the analysis of the international trade theories to the issue of sustainability, having Internetization Management in mind. I looked at how the international trade theories are related to the sustainable development issue. first in presence and then in absence of the recently introduced paradigm. I found the connection between the various iternational trade theories and sustainabl development in the new e-globalized environment to be strong for most of them, except for the theories of the Abosluate Advantage and the Compatative. For these two theories the connection is weak. The presence of the Internetization Management paradigm practices strengethened such connection while the reverse occured in the absence of that paradigm.

Keywords: Localized management, Networking management, Internetization management, e-Globalization, International trade theories, Sustainable development, Supply-based theories, Demand-based theories

1 Introduction

The impact of the IT and ICT application, such as Internet and E-commerce, on societies has touched on different aspects of the human activities including commerce. This impact is strongly observable not least at the micro-scale. As a result, we are already witnessing the creation of new forms of organizations such as born global SMEs and virtual organizations (see Turban *et al*, 1999, p. 5). IT impact induces new management paradigms such as Internetization Management. Dana *et al* (2002) introduced the new terminology "Internetization" in the emerging IT based economy as the synonym to the word "Internationalization" typical for traditional economy. According to the previously mentioned researchers, the term"Internetization" refers to the process of adoption and diffusion of e-business systems and Internet technologies by innovative entrepreneurs. The three researchers stated that "Internetization" has six stages: *non-adoption*, *trial Internet use*, *reactive Internet trading*, *active exploration of Internet*, *integration of operations with the Internet* and finally *Internet portal development*. Such new paradigms such as Internetization Management have to be taken in consideration when discussing firm internationalization.

The first section of this paper is a general introduction. In Section (2), I will look at the international trade theories. Section (3) covers, in short, the Internetization Management paradigm. In section (4), I will discuss international trade theories and sustainability first in presence of Internetization Management and then in absence of that paradigm. In section (5), I shall draw my conclusions.

2 International Trade Theories

2.1 International Trade Theories and the External Environment

People used the word "Information Technology" in different contexts. The confusion came due to the mixing of the various IT concepts. IT is the technology we use to manipulate information and it is not the information itself (Hickey, 2000, p. 4). The impact of IT at the micro level eventually propagates at the aggregate macro level. We need to have that in mind when we discuss international trade theories. Scientists use various concepts when discussing the business environment. Several theoretical frameworks provide guidance to empirical studies of how organization relates to their task environments. These include the contingency (Thompson, 1967; Donaldson, 2001), strategic choice (Child, 1972; Baum, 1998), competitive strategy (Porter, 1980), resource dependence (Pfeffer and Salancik, 1978), transaction cost (Williamson, 1981), and knowledge based (Nonaka and Takeuchi, 1995), Scholars have studied commerce among nations for longer period and that resulted in a bulk of valuable knowledge. Scholars divide international trade theories into two groups, the supply-based theories and the demand-based ones.

2.2 International Trade Theories, Supply-based

The first group of international trade theories is the supply-based ones. These theories deal with the issue out of the producer/supplier perspective. Among these are three major ones: *theory of mercantilism*, *theory of absolute advantage* and *theory of comparative advantage*.

2.2.1 Theory of Mercantilism

National wealth in this case is based on owning large quantities of precious metals such as gold and silver, known as *specie*. A nation in turn enhanced their wealth by the increase in specie it owns (Asheghian 1995, p. 23). The problem with mercantilist ideas was that they confused the concept of wealth with precious metal. Because they assumed that wealth was limited to ownership of precious metals, Mercantilists concluded that one nation's gain from trade was achieved only by another nation's loss (Asheghian 1995, p. 23).

Although mercantilism has preference in the economic thinking of the sixteenth and seventh centuries, it faced citizen a later period. David Hume, the eighteenth-century British economist criticized mercantilism and showed that there is a self-correcting mechanism (called the price-specie-flow mechanism) that makes mercantilist policies self-defeating (Asheghian 1995, p. 23). The theory of mercantilism proved historically to be wrong. New forms of goods other than specie played vital role as a reflection of the nation's wealth at a later stage.

2.2.2 Theory of Absolute Advantage

According to Asheghian (1995, p. 24), Adam Smith was the one who developed the *theory of absolute advantage*. Smith, a leading advocate of free trade, recognized the significance of specialization and division of labor. His theory of *absolute advantages* stated that two countries can benefit from trade if they can provide each other with a product made cheaply than they can be produced at home. According to this theory, each country should specialize in the production of goods in which it is most efficient, that is, the goods it can make most cheaply.

2.2.3 Theory of Comparative Advantage

As pointed out by Asheghian (1995, p. 26-27), a more complicated situations emerge when a country has an absolute advantage in producing both goods, that is, it can make both goods at a lower cost than the other country. David Ricardo first demonstrated this case in his theory of comparative advantage. As pointed out by Asheghian (1995, p. 27-28), and according to the theory of comparative advantage, if one country produce two goods more effectively than another country and can produce one of these goods more efficiently than the other, it should specialize in the export of that commodity in which it is comparatively more efficient.

Among the earliest empirical studies of the theory of the comparative advantage is a one which was done by the economist, G. D. A. McDougall from 1937 (see McDougall 1951). Similar studies, supporting McDougall early findings, were carried out by B. Balassa and R. M. Stern.

2.3 International Trade Theories, Demand-based

A second group of international trade theories are focused on the demand aspect of international trade. These include: *indifference curves*, *Heckscher-Ohlin Theory,* and *the extensions of Heckscher-Ohlin Theory.*

2.3.1 Individual Indifference Curves and Community Indifference Curves

An indifference curve is the locus of points representing combinations of two goods that give the same level of satisfaction to the individual consumer (Asheghian, 1995, p. 45). A community indifference curve (CIC) is analogous to an individual indifference curve. A community indifference curve indicates different combinations of two commodities that give the same level of satisfaction to a community or nation. The major difference between an individual indifference curve and a community indifference curve is that the former portrays an individual's preferences, whereas the later shows a nation's preference (Asheghian, 1995, p. 48-49) (see also Balassa, 1963).

2.3.2 Heckscher-Ohlin Theory

Lie Heckscher and Bertil Ohlin were the two researchers behind the *Heckscher-Ohlin Theory.* The two Swedish scientists argued that international differentials in supply factors of production explain the direction of international trade. They explained that supply includes not only factor productivities but factor endowments as well. Their ideas gave rise to the development of a theory that considers factor endowment as the primary cause of international trade. The Heckscher-Ohlin (H-O) theory states that each country should export those commodities that use its scarce factor most intensively. This means, for example, that countries with an abundance of labor, such as India or Hong Kong, should export commodities such as cloth, which require labor-intensive technology. On the other hand, a capital-abundant country is recommended to export goods such as airplanes and electronic computers, which require capital-intensive technology (Asheghian, 1995, p. 69-70).

2.3.3 Extensions and Alternatives to the Heckscher-Ohlin Theory

Continuous tests of the Heckscher-Ohlin theory showed that the theory cannot be proved or refuted (see Asheghian, 1995, p. 78). As a result, and although this theory was provisionally maintained, efforts were being made to either extend it or provide alternatives to it. One such initial effort is conducted by the Swedish economist Staffan Linder in 1961. Linder (1961) argued that the primary force influencing trade in manufactured products is domestic demand conditions. As most international trade involves manufactured goods, it follows that domestic demand is the key variable explaining the flow of products among countries (Asheghian, 1995, p. 80-81).

The H-O theory's inability to explain trade in manufacturing goods was first noticed by Irving Kravis. Kravis's 1956 work, underlined the empirical importance of technology in explaining the patterns of trade between countries. According to the H-O theory, each country should export the commodity that uses its abundant factor most intensively. Thus, a labor-abundant country, paying relatively low wages, should export labor-intensive commodities. However, Kravis' empirical investigation of the H-O theory provided contradictory results to the classical H-O theory. He learned that, in every country studied, the exporting industries were those that paid the highest wages. To explain this contradiction, Kravis maintained that each country would, in essence, export the commodity that its entrepreneurs could develop. In other words, what counts for a country that wants to export a technically advanced product is its technological superiority over its trading partners. Pioneering work of Kravis was followed by a number of writers, giving rise to the technological gap theory (Asheghian, 1995, p. 81).

In 1961, Posner introduced the concept of *imitation lag* to elaborate on the possibility of international trade between countries. He divided the lag into two components: the demand lag and the reaction lag. According to Posner, when new products are imported into a country, it takes time for a demand to develop because the new foreign goods may not be a perfect substitute for domestic goods or consumers may not be familiar with the product. The *demand lag* is the time needed for the demand for newly exported goods to develop. The *reaction lag* refers to the time it takes for the local entrepreneur to react to competition from abroad by starting local production. The difference between these two lags causes international trade to take place. A manufacturer might export a commodity to a nation when the demand lag is shorter than the reaction lag (Asheghian, 1995, p. 81-82).

Gordon Douglass used the concept of imitation lag in 1963 to explain the exports for the U.S. motion pictures. Douglass argued that once a country was a leader in a given product, it would have a continuing advantage in related products. The United States pioneered innovations in the film industry and was able to continue its exportation with success by incorporating product innovations, such talkies, color, and wide-screen movies, which were not yet available in other countries. After a lag, when the technology became commonplace, the volume and direction of U.S. trade was indeterminate (see Douglass, 1963) (Asheghian, 1995, p. 81-82).

In his 1966 study, Gary Haufbauer used the concept of *imitation lag* to explain the pattern of trade in synthetic materials (see Haufbuer, 1966). He found that a country's share of synthetic-material exports could be explained by the imitation lag and the market size (Asheghian, 1995, p.82). Ranking countries according to their imitation lag, Haufbauer learned that new synthetics were introduced rather consistently in countries at the top of the list and exported down to countries with longer lag times. The spread of technology caused the movement of the production down the list, displacing top countries' exports. Top countries, however, then moved into the development and exportation of new products (Asheghian, 1995, p. 82). According to Asheghian (1995:82), this theory initially known as "product cycle" was pioneered by Raymond Vernon and was further developed by Louis Wells.

In order to discuss the connection between international trade theories we need to mention something about the management paradigm within such interaction takes place, namely Internetization Management (or INM)

3 Internetization Management

The terminology "Internetization" was first proposed by Dana *et al* (2002). The term covered the dynamism by which the Internet-based firms are established. Later on Abouzeedan (2003) proposed using the term "Internetization Management" to express a new management paradigm which is more suitable to be utilized in the age of IT. The two writers argued that "Internetization Management" differs from the other two traditional management paradigms, "Localized Management" and "Networking Management". To differentiate between the Internetization Management and the other two management paradigms "Localized" and "Networking", they proposed looking at eight specific aspects of management. These are: *tools*, *time factor*, *administrative costs*, *practices*, *technology costs*, *time savings*, *IT-knowledge*, and localities.

In the next section, we will discuss the connection between the international trade and sustainable development on light of what Internetization Management can achieve to enhance that connection.

4 International trade theories and sustainable development

4.1 In presence of Internetization Management

4.1.1 Supply-Based Theories

The first of the supply-based theories is the theory of mercantilism. Abouzeedan (2003) has argued that the wealth asset, in the new economy, is knowledge and not the species as stated in that the Mercantilism theory. Knowledge, to the difference from gold and silver, is unlimited asset. As Abouzeedan (2003) stressed, there is no real geography for knowledge and any nation can attain and accumulate such wealth. The theory of mercantilism as thus is strongly connected to the sustainable development. More over that connection is affected positively by the presence of the Internetization Management paradigm in managerial operations of the firms. This is due to the fact that Internetization Management can facilitate better flow of information among the firms of the trading nations. Knowledge accumulated due to intensive usage of the Internetization Management thinking. Thus the wealth of nations expressed as knowledge and information accumulation is enhanced. Both the theory of absolute advantage (proposed by Adam Smith) and the theory comparative advantage (proposed by David Ricardo) are still valid in the new economy.

4.1.2 Demand-Based Theories

The second groups of international trade theories are demands-based. The first of these theoretical approaches are the Individual Indifference Curves (IICs) and Community Indifference Curves (CICs). These approaches, according to Abouzeedan (2003) are still valid because consumers would be compensated for a product with a substitute one. However, the control of the local market is getting more difficult and the markets of tomorrow are going to be global. In such situation the drive force to find substitution products will be reduced because of the easiness by which similar products can be obtained. The connection of the Indifference Curves' theories to sustainable development is strong because demand is the driving force behind creating new opportunities for businesses and commenced. The impact of the presence of Internetization Management paradigm thinking has a positive impact on that connection because the paradigm will facilitate opening new channels of communication offering wider range of alternative products.

The Heckscher-Ohlin Theory basic assumption is the locality of the availability of capital and labor. Abouzeedan (2003) argued that IT is breaking that and there is today more free flow of capital and labor. Advancements in communications made the labor cost irrelevant as online job opportunities have reduced the significance of the physical location of the work force. The connection of the Heckscher-Ohlin Theory to the sustainable development is strong. The impact of having an Internetization Management paradigm is positive because it most suited to handle dynamic operations as the markets are opening and the capital and workforce flows through border.

The extensions of the Heckscher-Ohlin Theory postulate the local demand as the main driving force for international trade. IT is enhancing that view because domestic market is becoming more extended and almost globalized which create larger space for the internal demand. The extensions of the Heckscher-Ohlin Theory have a strong connection to sustainability because all of them promote more globalization. The impact of utilizing Internetization Management paradigm is positive because this paradigm is functioning optimally in an e-globalized environment.

4.2 In absence of Internetization Management

In the absence of Internetisation Management paradigm we still have the same validity of the different international trading theories in the new e-globalized environment. The connection between the different international trade theories and sustainable development is still the same for all the theories. The difference is that the impact is transferred from being positive to being negative in absence of Internetization Management. In case when the connection in the presence of Internetization Management is neutral, it will be also neutral when the Internetization Management is absent. This occurs only in the cases of the *Theory of Absolute Advantage* and the *Theory of Comparative Advantage*. According to these two theories the key to trading has to do with the product cost. Internetization Management is not going to have any impact on that parameter. Production costs are affected by other factors such as labor cost, raw material costs, transportation.. etc. All of these items are physical in its nature. The above analysis is summarized in figure 1.

5 Concluding Remarks

In this paper I took that work further and looked at the connection between these international trade theories and the sustainable development both in absence and presence of Internetization Management

Theory/Validity in e-globalized economy	Justification	Connect of theory to SD/Explanation (in presence of INM)	Connect of theory to SD/ Explanation (in absence of INM)
Supply-based, The Theory of Mercantil-ism / ***No***	Knowledge is becoming the main asset of wealth. The new asset is unlimited.	*Strong, positively* (The presence of IM do have a positive impact as the knowledge transfer is facilitated by IM)	*Strong, negatively* Absence of IM restrict the information flow
Supply-based, Theory of Absolute Advantage / ***Yes***	IT cannot loosen the physi-cal production activity. Higher Production costs are still a factor of constrain.	*Weak, neutral* (The presence of IM does not impact the production costs.)	*Weak, neutral* (Absence of IM does not affect costs of production)
Supply-based, The-ory of Comparative Advantage / ***Yes***	IT cannot loosen the physi-cal production activity. Higher Production costs are still a factor of constrain.	*Weak, neutral* (The presence of IM does not impact the production costs)	*Weak, neutral* (Absence of IM does not affect costs of production)
Demand-based, Indifference Curves / ***Yes, but with restriction***	Desire for alternative prod-ucts still exists but control of market is not possible anymore.	*Strong, positively* (Presence of IM facilitates innovativeness and later native product design)	*Strong, negatively* (Absence of IM reduce possibilities of innova-tive thinking and finding alternative ideas)
Demand-based, Heckscher-Ohlin Theory / ***No***	IT is breaking the tradi-tional constrains enabling global flow of technology and labor.	*Strong, positively* (Presence of IM facilitates flow of information)	*Strong, negatively* (Absence IM reduces the possibility of breaking down communicative barriers)
Demand-based, Extended Heckscher-Ohlin / ***Yes***	Enhanced because of global mark.	*Strong, positively* (Presence of IM facilitates functioning in a global market.)	*Strong, negatively* Absence of IM makes it difficult to operate in a global market.

Figure 1 The Connection between The International Trade Theories and Sustainable Development (SD) in the E-globalized Environment in Presence and Absence of Internetization Management (INM) Paradigm

paradigm. I found from my analysis that, in the presence of Internetization Management paradigm we still have the same validity of the different international trading theories in the new e-globalized environment as postulated by Abouzeedan by (2003). The connection of these theories to the sustainable development is strong except for the *absolute advantage theory* and the *comparative advantage theory*. The impact of Internetization Management is neutral in case of the last two theories while positive for the rest.

In the absence of Internetization Management paradigm we still have the same validity of the different international trading theories in the new e-globalized environment. The connection between the different international trade theories and sustainable development is still the same for all the theories. The difference in case is that the connectivity between international trade theories and sustainable development is transferred from being positive to being negative due the absence of the Internetization Management. In the cases of the *Theory of Absolute Advantage* and the *Theory of Comparative Advantage* the impact is neutral. In both of these two theories the key to trading has to do with the product cost. *Internetization Management* is not going to have any impact on the production costs because this parameter is affected by other factors such as labor cost, raw material costs, transportation.. etc, all of which are physical in their nature.

Finally, the findings in this paper call for the usage of Internetization Management in organization in order to promote sustainable development.

References

Abouzeedan, A. (2003). 'Impact of information technologies and their applications on theories of international trade: A conceptual analysis', In: the Proceedings (CD-Version) of the European International Business Academy 29th EIBA Conference (Track IX: International Strategy, Entrepreneurship and Business Development), Copenhagen Business School, Copenhagen, Denmark, 11-13 December.

Abouzeedan, A. & Busler, M. (2003). 'Small firm management in the electronic commerce age: Conceptual reflection', *In the Proceedings of the Global Business and Finance Research Conference*, London, 14-18 July, pp. 230-244.

Asheghian, P. (1995). 'International Economics', West Publishing Company, St. Paul, MN, USA.

Balassa, B. (1963). 'An empirical determination of comparative cost', *Review of Economics and Statistics* Vol. 44, pp. 231-238.

Baum, J.A.C. (1998). 'Disciplinary roots of strategic management', *Advances in Strategic Management* Vol. 15, Greenwich, CT: JAI Press.

Child, J. (1972). 'Organizational structure, environment and performance: The role of strategic choice', *Sociology* Vol. 6, pp. 1-22.

Dana, L.P., Etemad, H. & Wilkinson, I. (2002). 'Internetisation: A new term for the new economy', *In the Proceedings of The Third Biennial McGill Conference on International Entrepreneurship, Researching New Frontiers*, McGill University, Montreal, Canada. 13-16 September, Vol. 2, paper no. 3.

Donaldson, L. (2001). 'The Contingency Theory of Organizations', Thousand Oaks: Sage.

Douglass, G.K. (1963). 'Product Variation and International Trade in Motion Pictures', PhD diss, Massachusetts Institute of Technology.

Haufbuer, G.C. (1966). 'Synthetic Materials and the Theory of International Trade', Cambridge, MA: Harvard University Press.

Hickey, J.B. (2000). 'E-Commerce: Law, Business and Tax Planning', Jordan Publishing Limited, Bristol, UK.

Linder, S.B. (1961). 'An Essay on Trade and Transformation', New York: John Wiley and Sons, Chapter 3.

McDougall, G.D.A. (1951). 'British and American exports: A study suggested by the theory of comparative costs', *Economic Journal* Vol. 6, pp. 697-724.

Nonaka, I. & Takeuchi, H. (1995). 'The Knowledge-creating Company', New York: Oxford University Press.

Pfeffer, J. & Salancik, G.R. (1978). 'The External Control of Organization', New York: Harper & Row.

Porter, M.E. (1980). 'Competitive Strategy', New York: Free Press.

Scott, W.R. (2003). 'Organization: Rational, Natural, and Open Systems', Fifth Edition, Pearson Education, Inc., Upper Saddle River, New Jersey, U.S.A.

Thompson, J.D. (1967). 'Organizations in Action', New York: McGraw-Hill.

Turban, E., McLean, E. & Wetherbe, J. (1999). 'Information Technology Management: Making Connections for Strategic Advantages', 2nd Edition. John Willey & Sons Inc.

Williamson, O.E. (1981). 'The economics of organization: The transaction cost approach', *American Journal of Sociology* Vol. 87, pp. 548-577.