Offshore Outsourcing: New Spin or Same Old Business?

Sudesh M. Duggal and Carl Simkonis
Northern Kentucky University, Highland Heights, KY, USA

duggals@nku.edu Simkonisca@nku.edu

Abstract

America has been, historically, the leading edge of much of the world's engineering and IT innovations. However, with the current trends of Offshore Outsourcing high tech and high paying employment, the questions arise: why go into these fields at all. Why involve yourself with the rigorous academic requirements demanded of these disciplines; especially when one considers the real possibility of being outsourced out of a job to offshore companies. As more and more high paying American jobs are outsourced to foreign markets, we must start to recalculate the benefit/cost ratios of no holes barred free trade practices. The current economic expansion, we are currently experiencing, is a unique one. It has not created jobs; nor has it added to real wage growth. This has not added to the overall American standard of economic life. The benefits of the expansion have been skewed very favorably to corporate American.

Keywords: OffShore Outsourcing, Economic Effect

Introduction

Outsourcing is the contracting of various systems functions, such as data entry, programming, facilities management, disaster recovery, and telecommunications management, to outside providers of services. The primary reason that organizations turn to Outsourcing is cost reduction, to leverage themselves ahead of their competitors, and as a means to increase their adaptability to changes in the market place. Outsourcing also provides the ability to benefit from the advances in information technology, while focusing on core business activities of the organization. Not only does Outsourcing information technology functions enable increased concentrated efforts toward the organizational mission, but if skillfully planned and properly managed, contributes to a healthy growth in the company's fiscal bottom line also.

How did Offshore Outsourcing Start?

The Offshore development concept has been around since the 1970's and it gained momentum as the Year 2000 approached the users realized the magnitude of the Y2K problem. The shortage of trained IT professionals in U.S. and the promise of faster, less expensive fix to the year 2000 software problems forced American companies to turn to Offshore Outsource services during the late Nineties. Not finding enough trained people and retaining them worsened the IT labor shortage situation at home and accelerated the dependence of these services. Offshore Outsourcing was not only used to reduce the cost of labor-

intensive Y2K software solutions, but also to accelerate their implementation (Duggal, 2004). According to Mishra (1997), Offshore Outsourcing is a good way for U. S. firms to share the pain of 2000 projects. That way, onshore sites can perform functions such as impact analysis, pre-change analysis, and test and implementation, and leave the labor-intensive compliance phase of projects to offshore factories.

Initially, the possible candidates for Offshore Outsourcing were application development and maintenance, bug fixes, call centers, data entry, mainframe work especially year 2000 conversion, and system maintenance (Steen, 1998). According to Steen (1998), as technology improves and success stories emerge about foreign Outsourcing, the practice is growing, according to those who study it and those who participate. She further states that as project management methodologies and infrastructure improve, more types of work can be done Offshore. Impressed by the speed with which the year 2000 projects were finished, the quality of the finished product, and the work ethic; companies started using Offshore Outsourcing for more business tasks as well as more critical application-development projects. The success stories about few of the Y2K projects claimed by different authors and noted by (Duggal, 2004) are (1) Florida Power & Light - awarded project to Mastech (Mishra, 1997); (2) OrionAuto, a subsidiary of Orion Capital Corp.- hired Cognizant Technology Solutions Corp (Mateyaschuk, 1999); (3) Tufts Health Plan – hired Wipro (Mateyaschuk, 1999); and (4) Aetna U.S. Healthcare, a subsidiary of Aetna Inc.- contracted 50 of the Bangalore, India, Outsourcer's IT (Greenemeier, 2000). Encouraged by the success of their Y2K projects, US organizations expanded Offshore Outsourcing operations to Canada, Europe, Singapore, Japan, India, Australia, and the Middle East for functions such as call centers, accounting and finance, transaction processing, e-mail support and processing of health care claims.

Reasons for the Continuation of Offshore Outsourcing after Y2K

The reasons for continuing Offshore Outsourcing after Y2K projects given by different authors and summarized by (Duggal, 2004) are (1) **Cost: -**Enabled US organizations to stretch their project budgets by 50% or more (Mishra, 1997), (2) **Availability: -** With at least 30,000 highly trained software engineers in India and such a shortage in the States (Robb, 2000), (3) **Quality: -** Why spend months searching for a second-rate U.S. programmer when you can instantly find a first-rate one overseas at half the cost? (Robb, 2000), (4) **Turnover: - A** heavy turnover in local consulting staff that sometimes halted progress due to retraining or delays in hiring replacements. I've also found that younger American programmers tend to operate like drifters, skipping from company to company. (Robb, 2000), (5) **Arrogance: -** Stories abound of the arrogance of Silicon Valley hotshots who demand high salaries, stock options, and sign-on fees. (Robb, 2000), and (6) **Training: -** The mathematical training that Russian programmers receive is superior to what is available in the United States (Prencipe, 2001).

Companies Using Offshore Outsourcing Services

According to Robb (2000), "Among America's biggest companies, those using Offshore programming include American Express, Aetna U. S. Healthcare, Compaq, General Motors, Home depot, IBM, Microsoft, Motorola, Shell, Sprint, and 3M." A few examples of the projects being Outsourced Offshore as listed by Duggal (2004) are:

- General Electric uses four major Indian partners with dedicated facilities that employ 3,200 people who develop and maintain GE's systems (Robb, 2000).
- Bank of America Corp. Outsourced to two Indian companies, HCL Technologies America Inc. and Hexaware Technologies Inc. (Vaas, 2002).

- Boeing Co.'s Commercial Aviation Group in Long Beach, Calif. Outsourced document-management system IBS in Moscow (Robb, 2000).
- GE contracted India's Mascot Systems to Web-enable its legacy backbone and created an online invoicing system for its client base. (Robb, 2000).
- Disney Co. hired another Indian firm, Pentafour, for high-end animation work. Daimler Crysler's Mercedes-Benz division uses Infosys, also in India, for a variety of E-commerce assignments. Nortel Networks Corp. uses Wipro to write software for high-speed optical switches. (Robb, 2000).
- Synxis Corp. turned to Bulgarian programmers for online hotel-reservation system. (Robb, 2000).
- Cognizant, through its offices in India, helped United States Cold Storage Inc deploy a new Web-based transportation system (Vaas, 2002).
- Mascon (a facility in Chennai, India) helped MasterCard deploy a clearing system to more efficiently transfer data and funds between financial institutions and businesses worldwide that accept MasterCard. (Greenemeier, 2002).
- Owens & Minor Inc. (the health-care products distributor) recruited skilled Russian programmers from the Russian government, St. Petersburg State University, and other educational institutions to renovate its contract and pricing system. (Greenemeier, 2002).

Countries Providing Offshore Outsourcing Services

"We've seen a steady increase in the use of offshore programming in recent years, and it's a trend that will continue for some time to come," says Rita Terdiment, VP and research director at Gartner Group. Beside India, Gartner sees IT expansion in places such as Egypt, Israel, Bulgaria, and Sylvania, She adds" (Robb, 2000). The list of countries providing Offshore Outsourcing reported by different authors and documented by Duggal (2004) is given below:

- **Brazil: A**dvantages include a good knowledge of computer science among IT professionals, a tradition of high-quality software engineering and the relatively short flight time to Brazil from the U.S. East Coast, making it feasible to hold in-person meetings several times a year (Horowitz, 2003).
- **Bulgaria:** The Russians used the Silicon Valley of the former Soviet Union as a space-development center. Almost every country in the region has a large network of colleges that produce far more IT graduates than are needed locally. That's why the Czech Republic, Hungary, Lithuania, Poland, Romania, and Ukraine, are starting to show up more on the Offshore IT radar screen (Robb, 2000).
- **China:** Has a large pool of well-trained workers, but language is a barrier (Steen, 1998).
- **India:** The leader in offshore application development and maintenance, India got a lot of year-2000 work. Its telecommunications infrastructure has improved in the past several years, and the country's workforce is well educated, English speaking, and large. But demand is growing faster than supply, especially for project manager, which pushes labor costs up slightly (Steen, 1998). First and foremost because of its tremendous education system and its ability to provide high-tech talent is meticulous," he says. Other hot spots for Outsourcing include China, Malaysia, the Philippines, Spain, and Ireland (Mishra, 1997). Some Indian services companies have be-

come major suppliers in the process, such as Wipro, with $532 million in revenue (Robb, 2000).

- **Ireland:** Known for software development and localization, as well as customer support. Workers speak English, but the labor pool is relatively small (Steen, 1998).
- **Israel:** Some of Russia's talent has moved to Israel, where workers do software development and research for foreign companies (Steen, 1998).
- **Malaysia:** Still an emerging player in the Outsourcing space. The Malaysian government has invested $10 billion in two high-tech parks -- Cyberjaya and Putrajaya -- as part of its Multimedia Super Corridor project to attract international business. By 2011, local officials expect the high-tech corridor to be supporting a working population of approximately 50,000 and a resident population of more than 120,000 (Collett, 2003).
- **Philippines:** The market for offshore development is growing, but the infrastructure isn't fully developed (Steen, 1998).
- **Russia:** Has well-trained workers, but companies may need to overcome difficult hurdles such as language, a poor telecommunications infrastructure, government bureaucracy and corruption, and economic and political instability (Steen, 1998). The mathematical training that Russian programmers receive is superior to that available in the United States. The application of mathematics to computer science and specifically to programming is emphasized in Russian education system, which is not happening enough in the United States to satisfy complex development needs of the IT projects (Prencipe, 2001).

Projections for Offshore Outsourcing

Fifty IT executives interviewed in a Forrester study of Offshore Outsourcing say they each have spent an average of $8 million on these services in 2000—roughly 12% of their IT budgets. The research firm projects that the average outlay will jump to $28 million, or 28% of IT budgets, in 2003 (Greenemeier, 2002). According to Krill (2001), companies in the United States will spend more than $17.6 billion on Offshore Outsourcing in 2005, tripling the current spending amount. U.S.-based companies spent only $5.5 billion on Offshore Outsourcing in the year 2004 but will increasingly need to look oversees for IT talent and not only as a cost-saving measure, the report from research firm IDC said. “Cost is still a primary reason for companies going overseas, but I think that access to IT talent is becoming more and more important,” said Cynthia Doyle, the report’s author and an IDC research manager. E-commerce and web-based application development will be the fastest growing Offshore Outsourcing segment (Krill, 2001).

Occupations at Risk from Offshore Outsourcing

As the pace of Offshore Outsourcing quickens, the million-dollar question for U.S. technology workers is: What jobs, if any, are immune from outsourcing? For this part, Meta Group’s Rubin said he believes that IT skills, no matter how specialized are vulnerable to Offshore Outsourcing. In general, however, network management; desktop support and security may be less likely to be shipped offshore than some development oriented skills (Vaas, 2002).

“White-collar outsourcing may take a bigger bite out of major metropolitan areas. This gloomy prediction comes from Ashok D. Bardhan and Cynthia Kroll of the University of California (Berkeley) Fisher Center for Real Estate and Urban Economics, who point out that metropolitan areas are, after all, where the "at-risk" white-collar jobs are disproportionately found” ((Kosterlitz, 2004). Not all metropolises will suffer equally say Bardhan and Kroll. The ones most vul-

nerable are the same ones that were the envy of all during the 1990s – the high tech-boom cities of San Francisco, and San Jose – in the heart of Silicon Valley – and the business and finance centers of Atlanta and Boston. In each of these cities, around 15 percent of employment is in the occupations most likely to be swept offshore. Worse, the jobs most at risk in the high-tech cities are the highest paying, with salaries 20 to 60 percent above the national average as shown in Figure 1 (Kosterlitz, 2004).

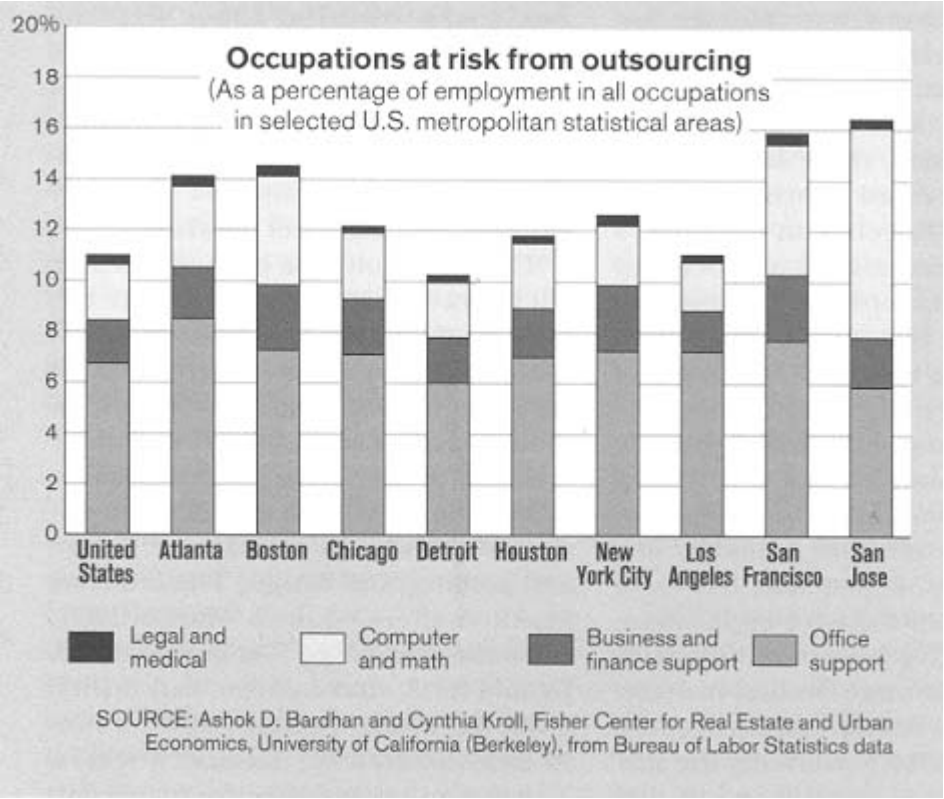

Figure 1 - Cities at Risk for Job Losses (Kosterlitz, 2004)

According to Thibodeau (ComputerWorld 12/15/2003), more than 500,000 jobs, by some estimates, have been moved to India. Examples of legislation seeking to restrict offshore work:

Congress

A bill sponsored by Senators. Craig Thomas (R-Wvo.) and George Voinovich (R-Ohio) would prohibit contractors from performing work outside the U.S.

Christopher Dodd (D-Conn) and Rep. Nancy Johnson (R-Conn.) have introduced bills in their respective chambers that would restrict use of the L-1 visa.

State legislatures

Indiana: A bill would require that government contracts be awarded only to U.S. citizens or people authorized to work in U.S.

North Carolina: legislation would require a call center operator to disclose his location upon request (Thibodeau, 2003).

Economic Effects of Offshore Outsourcing

In February 2004, President Bush's chief economic advisor, Greg Mankiw stated "Outsourcing" will prove "a plus for the economy in the long run", and was simply "a new way of doing international trade" (Kiker, 2004). These are interesting remarks, considering international trade has been around for a long period of time; and, Outsourcing has always been a part of that process. So there is a substantial time frame to investigate the past and present influences that off shore Outsourcing has had on trade practices. We can also use this platform to discuss, in more specific terms, future developments of the Outsourcing application, and its potential impact within the spheres of international trade. However, given the above, why would Professor Mankiw discuss Outsourcing as a new way of doing business internationally? This is of some interest to us. It will be our contention to initially agree with Professor Mankiw in this premise. Today's practice of Outsourcing is indeed a *new* way of doing business. However, we will not share his conclusions.

The current practice of Outsourcing is indeed new because it involves new world visions, new players, new ground rules and new long run consequences. The prevailing orthodox wisdom of the past has been compromised. Throughout this inquiry, we will show how and why this has happened. We will further offer a different scenario of the future drawing from our observations of the technological industries. We will begin this journey discussing the relevant economic arguments that have been, and continue to be, used in defense of past and present practices of free trade in general; and, Outsourcing in particular. We recognize the proponents of Outsourcing applications merely view this practice as a continuum of free trade. Therefore, for those proponents, the free trade logistics and arguments will also be extended to Outsourcing applications; they obviously consider these concepts part and parcel of the same debate. We will concede the historical relevance of this approach; however, we will make a marked distinction between the historical wisdom and use of Outsourcing, relative to its current application.

From an economic perception, orthodox wisdom has always favored free international trading; and, its subset applications, Outsourcing being a major one. This thinking is soundly based in Classical theory. Adam Smith, the *Father of Economics,* strongly argued in favor of unrestricted free trade. He showed how this type of international interaction could benefit societies in general. However, our journey will actually start with the person that modified this logic; the person whose theories are most often used in defense of free trading and Outsourcing. That person is David Ricardo. We will also use his theory, regarding the concept of comparative advantage, to demonstrate the new world applications of Offshore Outsourcing are not leading to a mutual advantage for all trading partners; but, to situations of pure absolute advantages, that are skewed to select winners of the new trade process. To further our argument, we will show that the very core foundational assumptions of Ricardo's comparative advantage concepts are today being violated. Our argument is not with David Ricardo. Ricardo's wisdom has been proven by the test of time and record. Our argument is with the new application of Outsourcing; and, the defense of these practices in the name of Ricardo's theory of comparative advantage. We feel the current approach to Outsourcing is diluting and distorting the very theme of Ricardo's message. So, let us first look at what is meant by comparative advantage.

The Comparative Advantage

The essential premise of Ricardo's trade thesis is comparative advantage. This concept dictates that proper use of the trading mechanics could be beneficial to all trading partners. It is a process whereby societal scare resources are utilized in a more efficient manner. Macroeconomics, in general, is the study of how best to manage scarcity. Comparative advantage technique has been a tremendous tool in this struggle. The applied mechanics of the concept is to allow each factor of production, each person, company, country, region of the world to specialize in that process they do better and cheaper. "A nation has a comparative advantage in some product when it can pro-

duce that product at a lower domestic *opportunity cost* than a potential trading partner" (McConnel & Bruel, 2005).

Thus far we have introduced two key ingredients in the Ricardo model; one being comparative advantage; the other is the costing methods and measurements within all economic interaction, that of opportunity costs. Comparative advantage is the ability to produce a product with the lowest cost; more specifically, with the lowest opportunity cost. "The only way we are strictly able to define cost is opportunity cost – the value of the resources in their next highest, or best, alternative use" (Miller, 1982). This is an important consideration in our discussion. In the areas of specialized training of human capital, *brain power,* the alternative use might represent a tremendous trade-off or fall-off of alternative value; a point we will make more dramatically later in this paper. This potential reduction, in alternative value, seems self perpetuating in terms of the current decisions to Outsource particular main functions of a firm's technology. This will be a major debate item in the argument against the current Outsourcing methodology. The current drain (off shore Outsourcing) of American human capital, although potentially benefiting the firm in the short run, is not proving to be in the best interest of American economics in general. Having stating the above, let's consider the algorithmic matrix of why firms Outsource in the first place; and what, in specifics, is new about modern day Outsourcing.

Modern Trade Trends

Decisions to Outsource part or all, of a technological procedure, are accomplished at the firm level. Firms make marginal considerations regarding the relative comparisons of benefit to cost. The use of Outsourcing would be an attempt to obviously reduce a transaction cost of doing business; and, by this procedure, increase the firm's ultimate benefit of increased profits. "If transaction costs for a specific product or service are higher than the cost of carrying on the activity internally, then a company benefits from performing this particular task in-house" (Keat & Young, 2003). Of course the reverse prevails also. If external transaction costs are lower than the internal cost for that product or service, a firm benefits from the process of Outsourcing. Nothing new here! However, what is new here is the following: "While the Outsourcing of peripheral, noncore activities has been around for a long time, the Outsourcing of a business's core activities is a somewhat more recent but a quickly growing activity" (Keat & Young, 2003). Today, for example, over "80% of Kodak's re-loadable cameras and all of its digital cameras are sourced in Asia" (Keat & Young, 2003).

This becomes more problematic when we discuss human capital: *knowledge.* Knowledge moves with extreme mobility as compared to other forms of capital. This gives the firm the luxury of constantly working both ends against the middle; moving the human capital requirements to the lowest bidder. This procedure is now occurring without regard to whether that Outsourced function constitutes an essential core component of the corporation's mainstay products or services. Firms will benefit in the short run; however, there are relevant costs that will be incurred, both by the firm and society. These costs must be included in discussions regarding the Outsourcing debates. Corporate decisions are not played out in a societal vacuum. When we begin to look deeper into the current application of the *new off shore Outsourcing models*, even the specific corporate short run successes begin to be diluted by the longer run effects. As firms practice more and more Outsourcing, they become more of a horizontal structured organization; as opposed to a more vertically integrated architectural management style. This loss of vertical organizational charting will translate to relinquishing some of the total control an organization possesses. This is certainly magnified when the Outsourced function is a core ingredient to what a company does. In fact "the term Outsourcing frequently is used to describe a movement away from vertical integration – making an activity outside the firm that formerly was done within the firm" (Brinkley, 2004).

The Mechanics of Choice

So, all firms have two methods of providing products and services; the "direct way, and the round about way" (Roberts, 2001). The direct method would be for the firm to provide that product or service itself; a vertical application of corporate and product structure. The round about method would involve various levels of Outsourced functions to others; a more horizontal application of technology and management style. Research shows that people do not Outsource only to "lower the cost of production" - there are many other reasons such as improved quality, lack of skills, strategic focus etc. By lowering the cost, or more correctly the opportunity cost of providing that product, it is perceived that a comparable advantage could be captured. By trading partners working within this realm of comparative advantages, a mutual beneficial scenario is predicted. That is precisely what Classical Theory dictates. Let's explore that premise in light of today's practices. As Outsourcing takes place, "America should have its citizen's work in the areas that allow the best application of their skills. Otherwise there are lost opportunities to create wealth" (Roberts, 2001). Here we have the very thrust of our debate. Outsourcing, theoretically as it pertains to the American economy, is designed to free-up the American factors of production to a higher alternative use. Through this process, mutual beneficial societal gains can take place within both affective economies. This has been the historical record; however, it is not the current result. Today's application of Outsourced activities is not in the spirit of Ricardo's theories of comparative advantage. The rules and reasons of application are different; yet the defense of these new practices, by the orthodox wisdom, has not changed. The current practice of Outsourcing is not creating a comparative advantage, but an absolute advantage. The majority of benefit is going solely to the Outsourcing firm; less and less mutual benefit to the American economy in total. Firms are becoming more international in their scope; less nationalistic in their priorities. Reduce cost where ever, when ever. Reduce cost regardless of whether American labor is elevated or reduced in terms of alternative value. Yet the defense of the practice maintains itself.

The Difference between Chess and Checkers

Ricardo's conditions of comparative advantage no longer apply to the current ground rules; modern technology has made the main foundational corner stones of the Ricardo's wisdom not in play. As Paul Craig Roberts clearly states "comparable advantage has two necessary conditions, neither which is met today. One condition is that capital is immobile internationally relative to traded goods. The other is that the trading countries have different opportunity costs of producing the traded goods" (Roberts, 2005). These are key points not relevant to today's production functions. "The condition of capital immobility is required to ensure that a country's capital seeks comparative advantage at home instead of absolute advantage abroad" (Roberts, 2005). Obviously, with computerization, human capital has little limitations or restrictions. This alone nullifies the use of Ricardo's centerpiece ingredient, comparative advantage, to defend the current practices of Outsourcing. We are beginning to see the results; the current scenario has not been to enhance the use of that human capital, within each trading partner; but in its stead, to equalize its value across the international market places. This is not a comparative advantage situation. This is an absolute advantage, in the short run, which primarily benefits the company that practices Outsourcing. "The international mobility of capital and technology and the advent of production functions that operate the same regardless of location mean first world labor will be displaced in tradable goods and services until there is a global equalization of wages and living standards" (Roberts, 2005). Precisely what is, and will continue, to happen. This leads us to the second required premise of the comparative advantage doctrine.

This second premise requires trading partners have different opportunity costs in the production of traded goods and services. "Different internal cost ratios of producing one good in terms of another are necessary if low-and high-cost countries are to experience mutual gains from specializing and trading" (Roberts, 2005). Here again, the current use of off shore Outsourcing is to-

ward international equalization of costs, wages and living standards. Ricardo is quite clear in his theories. This will not lead to a comparative, mutually beneficial, advantage. It leads to a very selective absolute advantage. Therefore, the historical ground rules are not changing……they have changed! Modern technological applications are centered more around brain power and a barrier free flow of computerization communication. "These production functions do not reflect a country's specific inherent differences that results in different opportunity cost ratios on which comparative advantage depends" (Roberts, 2005).

Conclusion

So, given the above, we restate our position: the new technological production functions center largely on the component of ***knowledge***; this human capital flows readily, with little interference in terms of barriers or immobility. The results are obvious. These procedural exchanges of human capital are migrating to situations of absolute advantage; not to the tenets of comparable advantage, where the arguments of free and unrestricted trade are based on. Absolute advantage, through the process of Outsourcing, will benefit the individual practicing firm. However, we must stop perpetuating the myth that suggests when individual firms benefit, from some practice or procedure, society in general also benefits. In the discipline of economics there is a principle of thought here. It is called the Fallacy of Composition. "A statement that is valid for an individual or part is not necessarily valid for the larger group or whole" (McConnel & Bruel, 2005). That's exactly what's wrong with American offshore Outsourcing today. We are sacrificing the whole for the benefit of the few. Through the process of American corporate Outsourcing, equalization of international wages and living standards will be the result; the mutual benefits of this interaction will become a mute point. However there are still winners in the process, our corporations who controls the flow of the capital. Since American wages, relatively speaking, are higher than most of the world, any equalization process will tend to lower our wages and standards of living; not build upon it. This does run counter to the historical record of free trade practices. Historically, American economic society has always benefited from free trade; and from off-shore Outsourcing. However, as stated previously, the mutual benefits of the past that were easy to demonstrate, are now a point of contention.

Therefore, we have looked at the modernized version of free trade and off shore Outsourcing. The historical mutual benefits of trading partners today are now in question. The benefits no longer appear to be mutual; but in its place, appear to be heavily weighted to certain winners and losers. American economics does not appear to be, in total, a winner. The migration of American jobs to lower paying service work is blatantly apparent. The current corporate trend of Outsourcing higher paying technical employment is also rather apparent. Firms want to shed cost; that's natural, reasonable, and working within the premises of the firm's self-interest. However, the American economic culture must begin to revisit this issue. We must begin to correctly analyze all of the relevant benefits and costs of Outsourcing. We must stop hiding behind an economic theory, comparative advantage, whereby the foundation stones have eroded away. Ricardo's theory of comparative advantage is a wonderful thesis. However, because of modernized technology, its influences are limited at best. The applications of free trade, and off-shore Outsourcing, must be reviewed with new perceptions. Why? This is indeed a new ball game, with new players, new ground rules…..new results!

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