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COST OF QUALITY: LESSONS FROM TOY RECALLS

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ABSTRACT

In spite of manufacturers' best efforts, products sometimes fail to meet customers' quality and/or safety expectations and have to be recalled. Recalling a product is a very expensive and complex task particularly in the context of international business. Recall data reported by the U.S. Consumer Product Safety Commission (CPSC) were analyzed for this study. The toys were classified into nine categories and the hazards posed by the toys were grouped in seven classes. Frequency of occurrence in each toy category and hazard class is presented. Monthly recalls have been analyzed and the countries of origin of the toys recalled have been reported. Lastly, the dominant hazards observed in each toy category have been identified.

Previous toy recall related studies mostly focused on the front end (retailers and consumers) of the value chain. While understanding the impact of toy recalls on retailers and consumers is very important, the role of the back end (manufacturers and suppliers) of the value chain must be understood to minimize recalls in the future. In the present study, we analyze recall data to first understand the nature of hazards posed by the toys, and then we propose a framework which includes regulatory agencies, retailers, and manufacturers so that an integrative approach can be taken in the context of international business to make toys safe. Next, we discuss the toy recall issue from the cost of quality perspective which includes prevention costs, appraisal costs, internal failure costs, and external failure costs. Lastly, we present quality management practices that can be applied at the back end of the value chain to enhance toy quality which is expected to reduce costly recalls.

INTRODUCTION

The automobile industry has been plagued with massive recalls in 2014. These recalls have renewed interest in understanding the root cause of recalls of various products and how they can be prevented. Similarly, the year 2007 was a tough one for the toy industry, one in which the U. S. Consumer Product Safety Commission (CPSC) reported a large number of toy recalls (Simms, 2007). The reason for these recalls included the presence of excessive amounts of lead, ingestion of dangerous substances, burns, cuts, and tip-overs that caused, or had the potential to cause, injuries. The popular press has suggested that cost-cutting pressure by U.S. importers/retailers forced Chinese manufacturers to cut corners which led to hazardous products (Blanchard, 2007; Brandt, 2008). The theory of quality management, however, suggests that cost reduction and conformance quality can be met simultaneously (McKone, Schroeder & Cua, 2001).

In this paper, first we review the recalls reported by the CPSC to understand the types of hazards posed by toys. Then we present an integrative framework that can foster coordination among regulatory bodies, retailers, and manufacturers. Lastly, we discuss some proactive quality

management practices that can help improve product safety and potentially minimize the trade-off between quality and cost.

TOY RECALL DATA SOURCE

The U.S. Consumer Product Safety Commission (CPSC) is an independent federal regulatory agency with more than 15,000 types of consumer products under its jurisdiction. The commission's primary objective is to protect the public from unreasonable risk of serious injury or death arising from unsafe consumer products. Data for this study were collected from CPSC website (http://www.cpsc.gov) reported from January of 2007 to March 2008. Our primary interest was only the year 2007, but there is a lag between the time a product is introduced in the market and the time it is recalled; hence, we collected data for three additional months. More than 33 million units were recalled during this period of time, and 258 injuries and 3 deaths were reported. Data gathered from the CPSC included the product name, the number of products included in the recall, the product category, the total number of units recalled, and the manufacturer, retailer, or importer conducting the recall. Also, we collected information on hazards posed by the toys, the month of the recall, any injuries or deaths reported, the retailers, and the country of origin of the toys.

These toys were divided into nine categories: action figures; dolls and accessories; educational; games; infant; children's jewelry; role play; vehicles, and other. The action figure category encompasses any figure-like toy traditionally used by boys. Dolls and accessories include figure-like toys and associated items used by girls. Educational toys are items not used purely for the enjoyment of children but involve a learning value of some kind. The game category encompasses board games and other games played with and by multiple children. Infant toys include raffles and baby teething rings. Children's jewelry was included as a category due to the vast number of recalls in this area. Role play toys are those that children use in dress up and pretend play. Vehicles included cars, trucks, boats and planes. The Other category included toys that did not fall in any one of the above categories; examples included spinning tops, tin pails, pool toys, wind-up toys, music boxes, and so on.

Hazards were limited to seven classes, which included potential injuries due to burns, cuts, fire, impact, ingestion, lead, and tip-over of a toy. Burns included instances of overheated toys causing burns. Cuts included any potential injury occurring due to sharp edges, or as a result of an appendage being pinched in a product. The Fire class included toys that overheated to the extent that they could start a fire. Impact items were moving/spinning parts of toys that could separate/break and impact the user. Ingestion was a broad class that included anything that children would put in their mouths with the potential of injury thereafter. While lead could be included in the former class, the decision was made to create a separate class due to the chemical nature of the hazard and the frequency of occurrence. Only one tip-over hazard was observed and was considered a class in itself for the purposes of this study.

TOY RECALL ANALYSES

In this section, we discuss frequency of recalls by number of products and/or by number of units. For example, if a product XYZ had 5 variations (such as color or size) and the number of recalled units across all variations was 1000, then we recorded that particular recall as involving 5 products (number of products) and 1000 units (number of units). Four categories of products,

Dolls and Accessories, Educational, Jewelry and Other, accounted for about 73% of all recalls by number of products (Table 1). By the number of units, two categories, Dolls and Accessories and Educational, account for about 68% of the recalls (Table 2). Lead and Ingestion comprise about 95% of the number of products recalled (Figure 1) and about 92% by number of units recalled (Figure 2). Interestingly, although a higher percentage of products was recalled due to lead content, more units were recalled due to ingestion than to lead content. The month of August (2007) had the most number of products recalled and the number of units recalled also spiked in this month (see Figures 3 and 4). Not surprisingly, the majority of the products recalled (about 96%) were made in China. India (about 3% by number of units) and Hong Kong (about 1% by number of products) were distant seconds (Figures 5 and 6).

Table 1
Number of products recalled by category

CATEGORY	SUM OF PRODUCTS	PERCENTAGE
Action Figures	29	6.43%
Dolls and Accessories	87	19.29%
Educational	83	18.40%
Games	14	3.10%
Infant	19	4.21%
Jewelry	67	14.86%
Other	93	20.62%
Role Play	14	3.10%
Vehicles	45	9.98%
Grand Total	451	100.00%

Table 2
Number of units recalled by category

CATEGORY	SUM OF UNITS	PERCENTAGE
Action Figures	2075800	6.17%
Dolls and Accessories	10479500	31.15%
Educational	12468760	37.06%
Games	520230	1.55%
Infant	326700	0.97%
Jewelry	2843470	8.45%
Other	1105100	3.28%
Role Play	742400	2.21%
Vehicles	3083500	9.16%
Grand Total	33645460	100.00%

Next, we highlight dominant hazard(s) by number of units in each toy category (Table 3). Lead was the dominant reason for recalls in the following categories: Jewelry (100%); Role Play (about 73%); and Vehicles (about 86%). Ingestion was the main reason for recalls in the following product categories: Action Figures (about 79%); Dolls and Accessories (about 90%); and Infant (100%).

Figure 1. Hazard frequency by number of products

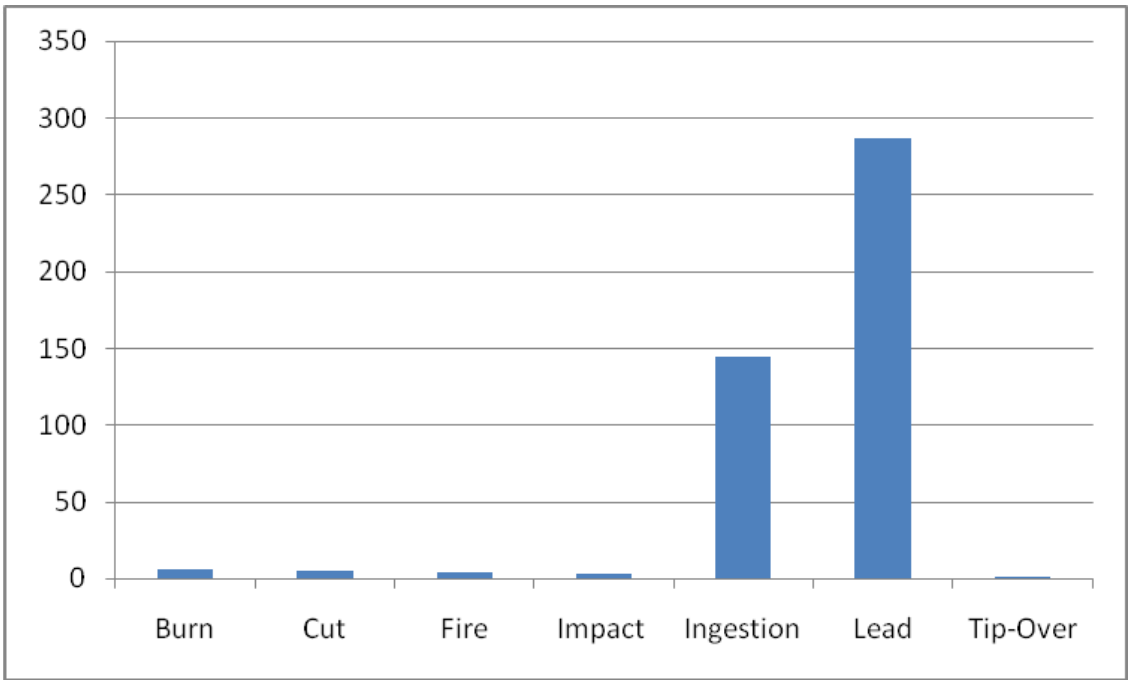


Figure 2. Hazard frequency by number of units

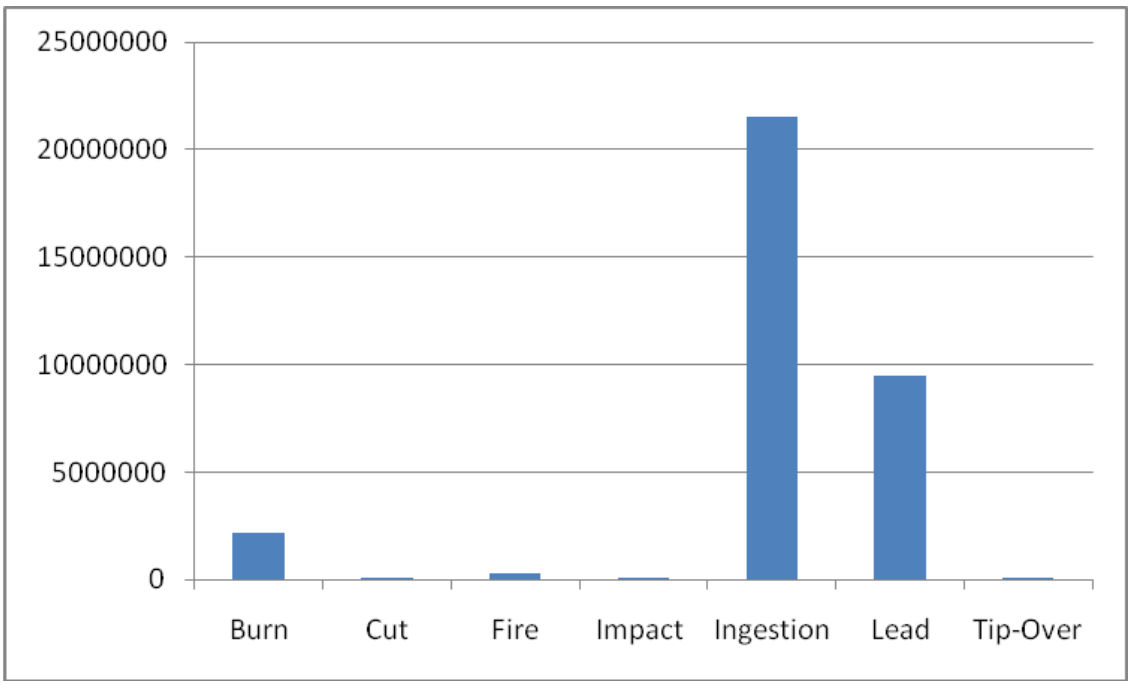


Figure 3. Number of products recalled by month

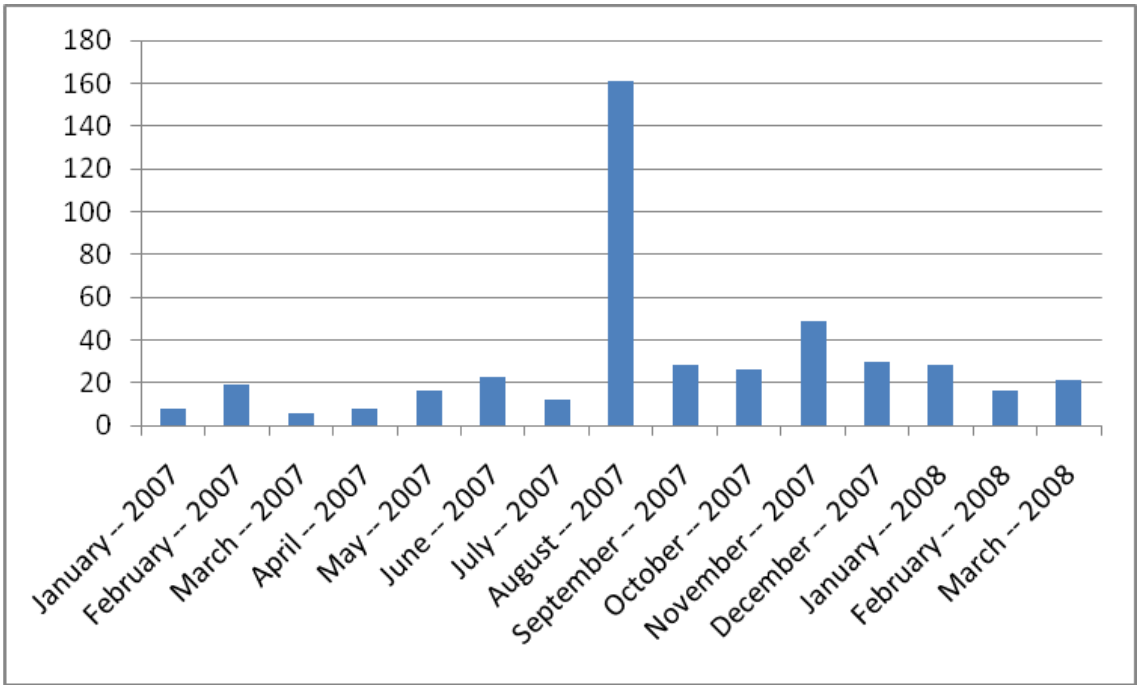


Figure 4. Number of units recalled by month

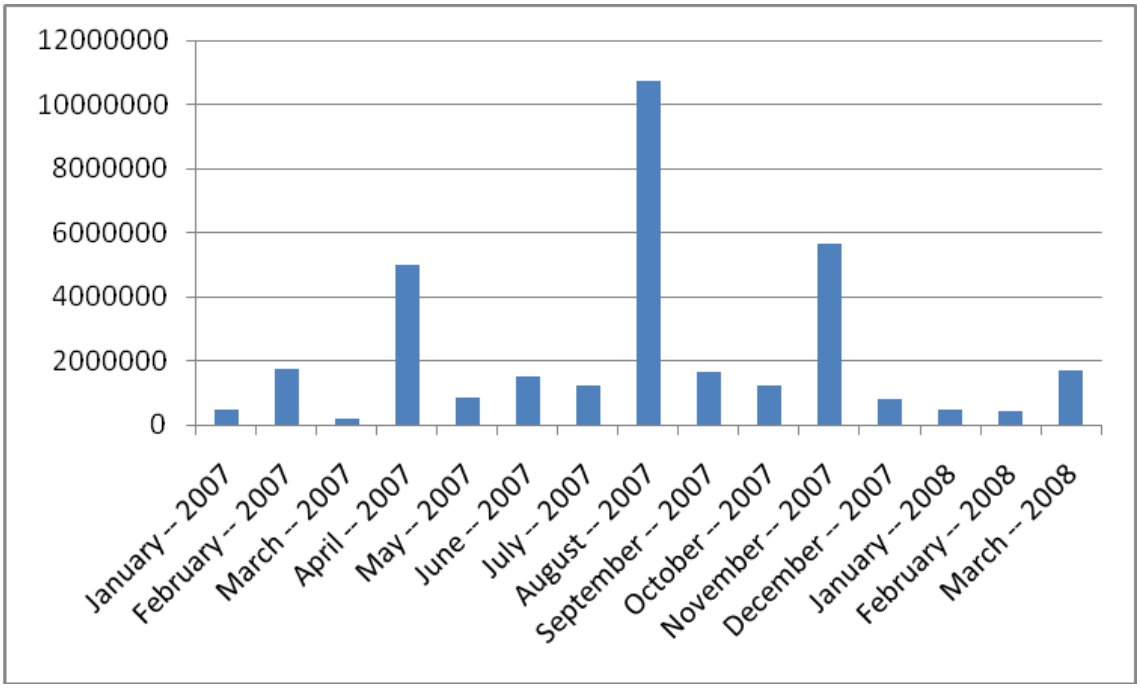


Figure 5. Recalls (number of products) by the country of origin

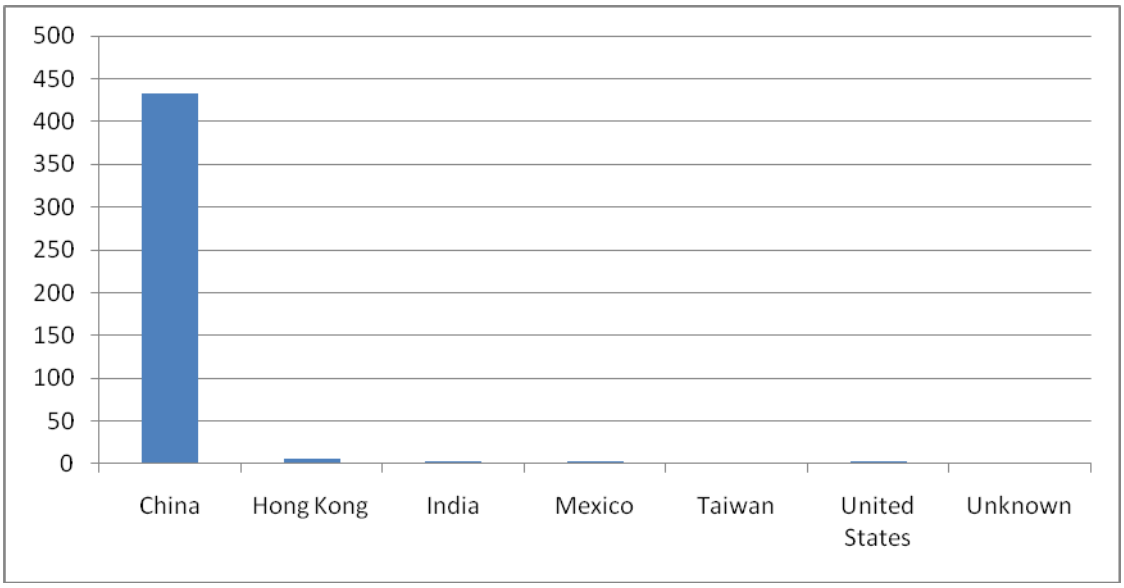
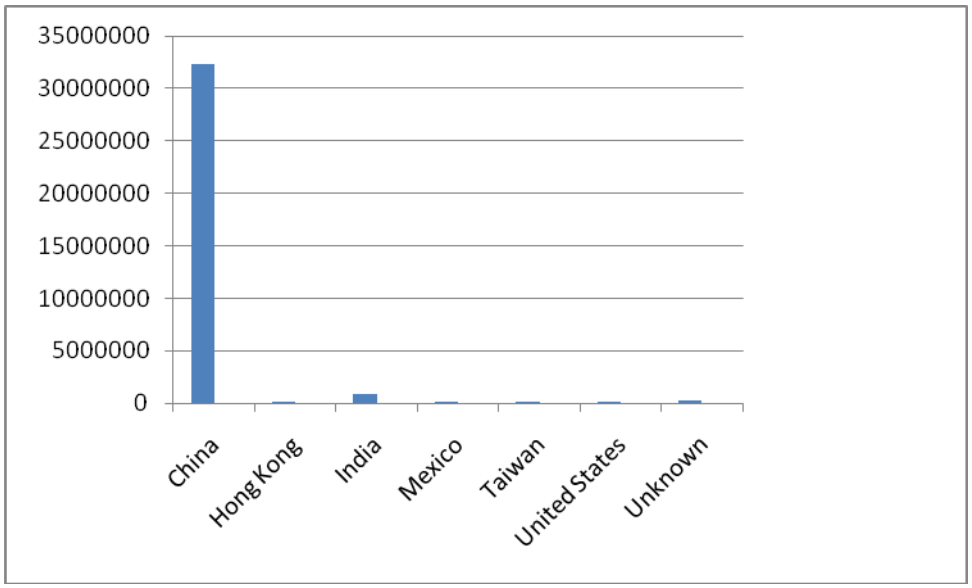


Figure 6. Recalls (number of units) by the country of origin



Some product recall categories had multiple major reasons, rather than one dominant reason, for recall. For example, the Educational product category had two major reasons for recalls: Ingestion (about 77%) and Burns (about 16%). Games were recalled for two major hazards: Ingestion (69%) and Lead (30%). Although lead was the dominant reason for recalling the products categorized under Role Play, a significant number of these toys were recalled due to ingestion hazards (about 24%).

Table 3
Dominant hazard in different categories

CATEGORY	HAZARD	NUMBER OF UNITS	PERCENTAGE
Action Figures	Ingestion	1645000	79.25%
	Lead	430800	20.75%
Action Figures Total		2075800	100.00%
Dolls and Accessories	Burn	113000	1.08%
	Cut	21000	0.20%
	Ingestion	9446500	90.14%
	Lead	899000	8.58%
Dolls and Accessories Total		10479500	100.00%
Educational	Burn	1985000	15.92%
	Cut	3100	0.02%
	Ingestion	9583900	76.86%
	Lead	896760	7.19%
Educational Total		12468760	100.00%
Games	Burn	1100	0.21%
	Impact	2600	0.50%
	Ingestion	360000	69.20%
	Lead	156530	30.09%
Games Total		520230	100.00%
Infant	Ingestion	326700	100.00%
Infant Total		326700	100.00%
Jewelry	Lead	2843470	100.00%
Jewelry Total		2843470	100.00%
Other	Cut	31000	2.81%
	Lead	1074100	97.19%
Other Total		1105100	100.00%
Role Play	Cut	6000	0.81%
	Ingestion	177000	23.84%
	Lead	542400	73.06%
	Tip-Over	17000	2.29%
Role Play Total		742400	100.00%
Vehicles	Burn	94000	3.05%
	Fire	332000	10.77%
	Lead	2657500	86.18%
Vehicles Total		3083500	100.00%

INTEGRATIVE FRAMEWORK

An integrated approach is needed to minimize hazards in toys. This approach requires coordinated efforts by regulatory agencies, retailers, and manufacturers. The following sections discuss the role of each of these entities.

CPSC and Chinese Regulatory Agency

The fact that most of the toys recalled were manufactured in China has led to open forums between China and the United States (Wilson, 2008). The CPSC hosted the U.S.-Sino Product Safety Summit in which an agreement was reached with the Chinese CPSC counterpart, the General Administration of Quality Supervision, Inspection, and Quarantine. In the agreement, the Chinese government agreed to increase inspections, assist the CPSC in tracking products with safety issues, exchange technical personnel with the CPSC, establish information exchanges with the CPSC regarding safety issues, and attend CPSC led training activities. The CPSC in turn translated nearly 300 safety standards into Chinese to help manufacturers understand U.S. product safety standards. These initiatives were put in place in response to the toy recall crisis. However, the agreement between the CPSC and its Chinese counterpart should be considered building blocks to strengthen their coordination, and need to be expanded to minimize hazards posed by toys.

The International Council of Toy Industries (ICTI) can also play an important role. China has been working with the ICTI and importers to develop a Code of Business Practices (CBP) and a seven-step ICTI Care Process. The former outlines the treatment of workers within the industry, while the latter establishes product standards for toy manufacturers. Under this arrangement, factories pay for an audit and receive a seal of compliance if they pass the inspection (Krueger, 2008; Servaes & Tamayo, 2013). Due to the globalized nature of manufacturing, these agreements need to be extended to CPSC counterparts in other countries. Memoranda of Understanding (MOU) with these countries can serve as a good starting point. The CPSC already has MOU with a number of countries. As recalls of Chinese made toys demonstrate, just having MOU is not enough; appropriate agreements and contracts should be made and, more importantly, their implementations need to be ensured.

Retailers

Toy recalls have prompted some retailers to rethink their roles. For example, Wal-Mart and Toys “R” Us Inc. have adapted a proactive approach by setting more stringent standards on lead even though prevailing laws did not require them to do so. Such a proactive strategy sends a signal to consumers that the company is prudent and diligent about the quality of the product they sell and bodes well for the corporate image (Ni, Flynn & Jacobs, 2014).Target has also indicated its renewed efforts to work with vendors, industry leaders, and the CPSC in combating the problems associated with unsafe toys. Wal-Mart, Toys“R” Us, and Target have primarily turned their attention to more stringent standards on metals and chemicals that have been shown to cause developmental problems in children, primarily lead (Pereira & Stecklow, 2008). The retail giants are requiring testing by independent laboratories and establishing requirements above and beyond the acceptable safe level of lead in products (Antonucci, 2008). Wal-Mart and

Toys "R" Us specified their goal to cut lead in toys from 600 parts per million to 90 parts per million (Szabo, 2008).

Toys "R" Us has also begun an initiative that would eliminate the use of PVC, or polyvinyl chloride, which is used to make products more flexible and has been used in baby rattles and teething rings. Retailers are also taking initiatives to achieve full traceability of toys from the component suppliers to the stores where they are sold (Pereira & Stecklow, 2008). For example, Toys "R" Us require suppliers to date code all products to further the traceability of goods (Sissell, 2008). These independent initiatives by retailers are steps in the right direction. However, isolated efforts by some retailers will do little to reduce hazards associated with toys unless these efforts are coordinated and expanded to include other retailers in the industry.

Manufacturers

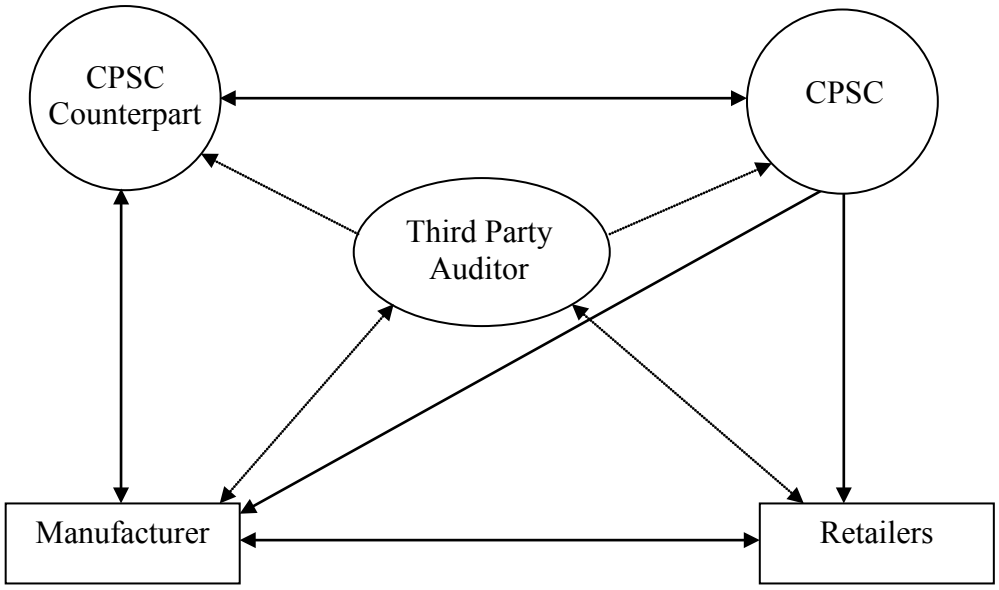
Manufacturers have been hit hard financially and lost consumer trust due to the toy recalls in 2007, so they are taking steps to prevent such occurrences in the future. For example, Mattel and Hasbro have implemented standards similar to those of the retailers and have stepped up oversight of manufacturing overseas. New oversight measures include the requirement that vendors use paint only from certified suppliers, use of independent on-site experts to monitor production, and test products post production (Desjardins, 2008). Fisher-Price has also responded by tightening its controls on the supply chain and testing, as well as reevaluating its own policies (Glynn, 2008). Testing, and especially unannounced testing, has been stepped up at its overseas operations.

In addition to the various uncertainties/risks associated with overseas manufacturing (Johnson, 2001; Gray, Roth & Leiblein, 2011), it also poses two major challenges throughout the supply chain: communication and accountability. The longer the supply chain, the harder it is to maintain communication between participants (Marucheck, Greis, Mena & Cai, 2011). Inadequate product specification and pressure to maintain shorter lead times make matters worse (Brandt, 2008). Accountability fades as activities are outsourced to other smaller companies which in turn outsource to other even smaller companies (Teagarden & Hinrichs, 2009). Eventually, manufacturing activities are at least two or three stages removed from the Chinese company to which the production was outsourced. For example, Mattel contracted with a manufacturer in China which sub-contracted to another manufacturer, which in turn sub-contracted yet again. This third sub-contractor did not use the approved paint, triggering a massive toy recall due to high levels of lead (Simms, 2007). With so many stages between the retailer and the sub-contractor at the furthest end, the root cause of problems becomes almost impossible to trace, should there be a recall. Use of RFID tags and requiring that the Bill of Materials contain the origin of each part used in production can help improve traceability (Thilmany, 2007). The use of RFIDs for inventory management is growing but their use for tracing and tracking recalled product is still in its infancy (Marucheck, Greis, Mena & Cai, 2011).

Figure 7 represents an integrated approach to information exchanges among regulatory agencies, retailers, and manufacturers. At the broader level the CPSC and its counterpart in China (or other relevant countries) need to have common goals and objectives. The standards agreed upon by both the CPSC and its counterpart(s) have to be communicated to the retailers so they can enforce these standards. Monitoring manufacturers' activities upstream has been a major problem particularly when manufacturing tasks have been outsourced and subsequently

sub-contracted to a number of vendors. For example, Mattel allowed a manufacturer, with whom it had a trusted 15 year relationship, to perform its own quality control tests, but that relationship could not prevent products from being contaminated with lead (Spencer & Casey, 2007). This emphasizes the need to mandate independent third-party quality testing/auditing. These independent auditors will report any exceptions/violations to regulatory agencies, manufacturers, and retailers so that stakeholders are kept informed and prompt corrective action can be taken.

Figure 7. Coordination across the supply chain



COST AND QUALITY

The quality management literature classifies costs of quality into four major categories as follows: (1) Prevention costs – costs incurred to keep nonconforming products from occurring (e.g., product quality awareness training, product redesign, etc.); (2) Appraisal costs – costs associated with checking if products meet specification (e.g., inspection/testing, calibration of measuring instruments); (3) Internal failure costs – costs incurred as a result of unsatisfactory quality found before a product reaches customers (e.g., scrap, rework, etc.); (4) External failure costs – costs incurred when poor quality products reach customers (e.g., recall, product liability, etc.). From a quality management perspective, investment in prevention and appraisal costs is expected to minimize expensive internal and, particularly, external failure costs. Toy retailers have blamed toy manufacturers for poor quality while suppliers have blamed manufacturers for price pressure. This presents a classic scenario of trade-off between cost and quality.

From a quality management perspective, we argue that it need not be an either/or proposition. In fact, the theory of quality management suggests that conformance quality and low cost can be achieved simultaneously if top management can bring about changes in an organization that motivate employees to do their best work in an environment where they can report mistakes without fear (Anderson, Rungtusanatham & Schroeder, 1994; McKone, Schroeder & Cua, 2001). A product is said to have conformance quality if it meets design

specifications agreed upon by the retailer/importer and the manufacturer. Attaining higher degree of conformance quality will decrease rework and scrap costs leading to cost savings. Furthermore, the toy recalls observed fall into the worst of the four cost of quality categories, the external failure cost. Recalls also lead to latent costs that are much more difficult to value, such as loss of customer satisfaction and goodwill toward the company. Expenses arising from these recalls generally exceed the costs of manufacturing, not to mention the legal issues and fines incurred in the event of penalties levied due to injuries or deaths. With the cap for penalties likely rising, these costs will increase and potentially threaten the existence of smaller importers, and take a large portion of the bottom line of the larger retailers and manufacturers (Krzykowski, 2009). Therefore, it would be to manufacturers' and retailers' advantage to proactively apply quality management practices as suggested below.

Quality at the Source

Quality at the source empowers employees to become their own inspectors and to take responsibility for the quality of their output. However, this empowerment would do little unless the employees are trained in how to identify and solve problems using statistical process control tools in a team environment where management fosters quality culture. Companies need to do a better job of coordinating and monitoring the behavior of suppliers with respect to product safety. In a study of noncompliant behavior among Chinese apparel and textile suppliers, Jiang (2009) observed more sustainable compliance when buyers used cooperation and collaboration with the suppliers as opposed to threat and coercion. Thus, the notion of quality at the source need not be confined within an organization but, rather, should be extended across suppliers and manufacturers along the supply chain.

Quality Function Deployment

Hora, Bapuji & Roth (2011) empirically show that the time to recall, as measured by difference between product recall announcement date and product first sold date, is longer for products with design flaws than for products with manufacturing defects. Longer delay in recalling a defective product has greater potential for safety hazards and costs. Thus, the importance of product design on product failure and consequent recall cannot be overemphasized.

While lead has been a highly publicized reason for recalling toys, manufacturers have also encountered more dangerous product defects involving ingestion hazards. For example, Mega Brands had to completely redesign its Polly Pocket and Batman toys due to magnets that would fall out of the toys and be ingested by children. The company changed the design by embedding the magnets within the plastic and then sealing them with a cap to avoid their escape. However, these changes were made after the fact and, hence, are reactive. A proactive approach is needed. Quality Function Deployment (QFD) is a process that integrates customer voice, design, and manufacturing so that products meet the expressed needs of customers. Customers and engineers speak different languages. QFD translates customer requirements into engineering specifications. For example, ingestion was one of the main reasons for infant product recalls. To prevent ingestion of small parts (a customer requirement), product design teams can use QFD (House of Quality in particular) to develop specifications on the minimum part size allowable and/or appropriate harness which ensures that small parts will not become loose during use.

Good Manufacturing Practices and ISO Certification

Manufacturing facilities in FDA-regulated industries (e.g., drugs, food, and medical devices) are subject to inspection by governmental organizations. Inspectors assess a manufacturing facility's compliance with "Good Manufacturing Practices (GMPs)." Inspectors check whether the production and control procedures are designed to have all reasonable precautions to meet or exceed acceptable quality and safety levels of the finished products. In addition to checking the existing manufacturing practices in details, these inspections usually involve spot checks of records and conversations with random employees during plant tours. Toy industry can greatly benefit from lessons learned by companies in the FDA-regulated industries.

Based on a sample of 30 pairs of regulated drug manufacturing plants in the U.S. mainland and Puerto Rico, Gray, Roth & Leiblein (2011) found that Puerto Rican plants operated with a significantly higher quality risk than matching plants operated by the same firm located in the mainland U.S., on average. The authors argue that the difference in quality risk is primarily driven by cultural distance (Hofstede, 2001), which acts as a barrier to consistently transfer the company's knowledge of good manufacturing practices (GMPs) across offshore plants. Therefore, cultural distance should be paid close attention to when applying the tenet of GMPs in toy manufacturing facilities across different geographical locations.

ISO certification can play an important role in ensuring consistency of procedures followed by suppliers and manufacturers. ISO certification requires detailed documentation of procedures be kept and the steps stipulated in these documents be adhered to. For example, the best procedure used to ascertain lead content in a toy part can be documented and shared across suppliers and manufacturers. ISO certification will ensure that these documents are kept and the steps included in these documents are followed consistently across the value chain. An accredited certifying agency, a third party team of auditors, visits the site to check consistency between steps stipulated in the quality manual and actual practices observed in the manufacturing plant before recommending the site for certification.

Failure Mode and Effects Analysis

Supply chains have become more complex due to outsourced manufacturing activities even in highly regulated industries such as food, pharmaceuticals, medical devices, consumer products and automotive. Increasingly, research and design activities are also being outsourced (Marucheck, Greis, Mena & Cai, 2011). Thus, the practice of identifying potential failure modes of a product at the design phase has become crucial to minimize recalls.

The objective of Failure Mode and Effects Analysis (FMEA) is to identify all the ways a product can fail (or become unsafe) using a Fault Tree Diagram. The purpose of this analysis is to identify the failure modes, understand the causes of failure, estimate the impact of failure (e.g., safety, cost, others), and suggest corrective actions. Thus, FMEA can be used to explore potential hazards posed by a product so remedial measures can be taken before the product hits the market. Manufacturers need to consider potential errors as seriously as the ones they have already made and learn from both. A work environment where employees are encouraged to explore and report potential design flaws or other quality problems without fear is essential to creating a proactive learning culture which involves studying, listening, testing, and tracking (Bapuji & Beamish, 2008).

CONCLUSION

About 60 percent of the world's toys are produced in China (Brandt, 2008) and about 80% of the toys that come into the United States are made in China (Spencer & Casey, 2007). Although lead contamination and loose small magnets were the main reasons for toy recalls, analyses showed that other hazards were also present. Several factors have contributed to these recalls. At the broad level there needs to be a close coordination between CPSC and its counterpart(s). More importantly, CPSC counterparts have to do a better job of enforcing the standards and continually sharing relevant information with the CPSC. Third party auditors can play an important role by monitoring compliance at the manufacturers' and/or sub-contractors' sites and relaying that information to the stakeholders. While third party testing is somewhat reactive in nature (i.e., after the fact), it is still better than discovering quality problems once the products have already reached the market. A more proactive approach should be taken by retailers and manufacturers; they should work together with their sub-contractors and vendors to improve conformance quality by applying quality management practices discussed earlier. In addition, companies can learn not only from their own recall experiences but also from other recalls in the industry (vicarious learning). Such knowledge improves product designs, production processes, and risk management strategies (Thirumalai & Sinha, 2011).

Historically, retailers put pressure on manufacturers to reduce costs and pretended that this would not have any consequences. The 2007 recalls have shown that this cost cutting pressure is transmitted from the main manufacturer to the n^{th} sub-contractor where compliance is not enforced and transparency is lacking. However, when a recall happens, all entities in the supply chain, from retailer to small vendors, suffer and incur losses which are often more than the cost they wanted to cut in the first place. Therefore, much can be gained if retailers and manufacturers work under a common goal.

According to an analysis reported by CNN, 2014 is shaping up to be a year with one of the largest number of passenger cars and trucks recalls in the U.S. history (Isidore & Wallace, 2014). Roughly one out of every ten of passenger cars and trucks on the road has already been recalled. These events have renewed the interest in understanding the root cause of recalls of various products and how they can be prevented. Our study intends to shed light on toy recalls to understand causes of recalls and offers suggestions to minimize these recalls in the future.

Products can be made in China for 30 cents when they would cost $1 to manufacture in the United States (Winston, 2007). This fact has been an obvious driver for United States' toy retailers to purchase toys from China and this trend is expected to continue. So the toy industry needs to make accountability a priority in its extended supply chain to attain both low cost and high quality, not low cost at the expense of quality. Each year, the $22 billion U.S. toy industry sells about 3 billion toys through a wide range of retailers (Schmidt, 2008), so manufacturers that manage their intricate supply chains better stand to profit from this vast yet very competitive market.

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THE IMPACT OF OFFSHORING ON ORGANIZATIONAL COMMITMENT: RECRUITING, TRAINING, RETENTION AND ETHICAL CONCERNS

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ABSTRACT

As organizations continue to "offshore" many of their operations across national boundaries, they also reconfigure their relationship with their workforce. In this paper, we examine the impact of offshoring on the employer-employee contract, primarily through the lens of organizational commitment. Our contention is that employer-employee relations are increasingly taking on a transactional character, at the expense of earlier psychological contracts. We present a framework of new HR imperatives that confront organizations and employees in the post-offshoring age. We also present an ethical challenge to the academic researcher, who must represent this tricky debate fairly in their research and the classroom without taking recourse to ideological formulations which conflate corporate welfare and social welfare.

INTRODUCTION

The practice of "offshoring," i.e. relocating jobs from a metropolitan location such as the United States to other nations for purposes of extracting arbitrage advantages in the labor sector, began in manufacturing (Houseman, 2007), but has now set up pervasive roots throughout the service sector (Crinò, 2010) and even in the knowledge-intensive parts of industry (Leonardi & Bailey, 2008). The debate on the broader consequences of such offshoring rages on in the business press (Engardio & Einhorn, 2005), consultant publications (Farrell & Agrawal, 2003), and increasingly, journals devoted to managerial practice (Arik, 2013; Venkataraman, 2004) and organizational theory (Levy, 2005). At the heart of this debate lies unease about the transforming relationship between employees and organizations, another topic that has been subject to extensive research in the organizational literature (Denning, 2013; Messner, 2013; Janssen & Van Yperen, 2004; Tsui, Pearce, Porter & Tripoli, 1997; Mir, 1997). As organizations continue to attempt to socialize their employees into subjecthood (Louis, 1980), issues of employee-organization relations become salient. While research has indicated that employees experience both economic and social pulls toward their organizations (Arthur, 1992), theorists have often wondered which of these pulls is more compelling in the current organizational scenario. On one hand, the employee-organization relationship can be highly economic in nature, and resemble a market transaction (Williamson, 1985). On the other hand,

there exists a *psychological contract* between employees and organizations, one that goes way beyond market transactions (Rousseau, 1995). The framework of social exchange theory (Blau, 1964) has been used to provide a theoretical basis for this relationship, and empirical examinations of this issue have concluded that the *mutuality of investment* in this relationship is the greatest determinant of the strength and success of the employee-organization relationship (Moss, Sanchez & Heisler, 2004; Tsui et. al., 1997).

In this paper, we argue that in the current corporate landscape, the employee-organization relationship is subjected to further shifts on account of the changing profile of the workforce. Because of offshoring and corporate downsizing, today's employees often operate in an environment where their work group is comprised of a number of traditional workers employed directly by the organization as well as a number of contracted workers drawn from different organizations, put together in order to work on a specific project. The former provide the stability and organization-specific expertise while the latter provide both functional and numerical flexibility to the organization. Often, the group starts working on projects as soon as it is formed. Also, the nature and size of the group tends to be dynamic with the post-offshoring employees being added and removed as the need dictates. As a result, the "post-offshoring worker," including the worker who is attempting to enter the workforce in the next few years, encounters an atmosphere characterized by a paradoxical combination of high hopes and declining trust. In the wake of waves of corporate downsizing (Beam, 1997), most of which have been triggered not by falling productivity but more by the exigencies of the stock market (Lowe, 1998), workers are justifiably wary of their expectations from their employers. To that extent, we may hypothesize that their relationship with their employers is moving from a psychological contract model to an economic exchange model.

How do we reconcile the ambivalence of the post-offshoring workers toward their employers with their intense need to monitor their own progress? Does this attitude on the part of the post-offshoring workers constitute a fundamental shift? Does it pose an HR challenge? How can such a challenge be met by practicing human resource managers? In the rest of this paper, we address these issues in three ways. First, using the lens of *organizational commitment*, we postulate a series of emerging relationships between organizations and their post-offshoring employees. Secondly, we utilize these theoretical terms to develop a framework of newer HR techniques being deployed by organizations to manage the post-offshoring employee. Finally, we end with a discussion on the role of academic ethics in the unpacking of the discourse of offshoring.

OFFSHORING: A CRISIS IN THE MAKING?

Attitudes toward corporate offshoring are often intensely polemical, and fluctuate wildly depending upon the source of one's information. On one hand, organizations like the AFL-CIO make a passionate case that offshoring is the defining political crisis of our time, costing US workers around half a million jobs in the professional services and information sector (see http://www.aflcio.org/yourjobeconomy/jobs/outsourcing_myths.cfm). The AFL-CIO disputes a variety of "corporate myths" that suggest among other things that the jobs being outsourced are low-end jobs, or that offshoring is good for the US economy in any indirect way. On the other

hand, pro-corporate research by organizations such as McKinsey suggests that offshoring is a boon to US business, and that offshoring is an important source of "value creation" for the US economy (Farrell & Agrawal, 2003).

Our own perspective on offshoring is that it needs to be viewed more through a lens of class analysis, rather than using the nation state as a frame of reference. Offshoring presents opportunities to the elites of both the first world and the third world, while contributing to a widening of income and privilege gaps in all parts of the world. Framing the debate on offshoring as a zero-sum war between nations leads to analytical positions that border on the xenophobic ("Is Wal-Mart a Trojan horse by which China will vanquish the US economy?") and miss the broader analytical positions that could be useful ("How does one reconcile potential gains from effective supply chain management with the mistreatment of important organizational stakeholders like labor?"). Such analysis is only useful when we use innovative units of analysis, especially those of economic class (Bluestone & Bluestone, 1992). One could argue that a nuanced debate on offshoring would offer an important key to the critical examination of the trade theories that surround that elusive term "globalization," and serve to illuminate some very troubling ideological assumptions that underpin the macroeconomic ideology of neoliberalism (Mir & Mir, 2005).

A comprehensive transnational discussion on the macroeconomic impact of offshoring both in the manufacturing and in the white-collar sector is long overdue. However, our aims in this paper are more circumscribed. In this paper, we confine our analysis to a study of the impact of offshoring on the organizational commitment of employees in the industrialized nations of the world, and the ethical challenges posed by such phenomena for academics who teach in business schools.

ORGANIZATIONAL BEHAVIOR

One of the theoretical frameworks, which can be used to make sense of conflicting aspirations and expectations in the workplace, is that of organizational commitment. Lyman Porter and his associates (Porter, Steers, Mowday & Boulian, 1974, p. 604) had specified the following characteristics of commitment: "a strong belief in and acceptance of the organization's goals and values, a willingness to exert considerable effort on behalf of the organization, and a definite desire to maintain organizational membership." Mathieu & Zajac (1990) provide a meta-analytical study of commitment, studying antecedents of organizational commitment such as personal traits, job characteristics, group and leader relations and its outcomes such as productivity, withdrawal intentions, turnover, and attendance. Empirical studies suggest that the bond between employees and their organization is strengthened by a number of factors including job scope, job challenge, leader communication, participative management, occupational commitment, job involvement and job satisfaction. On the other hand, role ambiguity, conflict, and work overload lower the commitment of the employees towards the organization (Brown, 1990; Griffeth & Hom, 1988; Mathieu & Zajac, 1990; Pfeffer & Lawler, 1980; Steers, 1977). Organizational commitment is considered desirable since it appears to result in a lower turnover and to contribute to greater productivity (Hom & Griffeth, 1995).

Various other formulations of organizational commitment have emerged over the last several years. Reichers (1985) conceptualized commitment in terms of multiple constituents and reference groups by defining commitment as *side-bets* (the rewards and costs of organizational membership), *attributions* (the "binding" of the individual to behavior over a period of time) and *goal congruence* between the employee and the organization.

O'Reilly and Chatman (1986) drew attention to the underlying dimensions of psychological attachment of the employee to the organization by demonstrating that organizational commitment was a multidimensional concept which could be separated out into three distinct factors which they labeled compliance, identification and internalization. *Compliance* is the instrumental involvement of the employee with the organization for extrinsic rewards. *Identification* refers to involvement based on a desire for affiliation while *internalization* is the involvement predicated upon the congruence between individual and organizational values. O'Reilly and Chatman's (1986) study contends that commitment of the latter two kinds contributes to greater organizational citizenship and reduces turnover. In another study, Allen, Meyer and Smith (1993) separate commitment into three components called *affective* commitment (Porter's concept), *continuance* commitment (Reichers' side-bet formulation) and *normative* commitment (defined as the "moral responsibility" to the organization).

Despite this theoretical proliferation and the ongoing debates about organizational commitment and its effects (Bateman & Strasser, 1985; Curry, Wakefield, Price & Mueller, 1986; Farkas & Tetrick, 1989), there has been a considerable amount of congruence in the definition of this concept. Broadly speaking, most theorists agree that organizational commitment can be seen in terms of two dominant dimensions. *Affective commitment* is an attitudinal phenomenon related to personality traits and job-related factors, and leads to the willingness of an employee to support organizational goals. *Calculative* or *continuance commitment,* on the other hand, is the result of an employee's perception that organizational membership will serve his self-interest and results in the continued participation of the individual in the organization (Brown, 1990; Hom & Griffeth, 1995).

Measurement of organizational commitment has typically followed the logic of the above conceptualization. Instruments used to measure organizational commitment employ scales that assess affective and calculative commitment through the surrogates of loyalty and *intent to stay* (Mueller, Wallace & Price, 1992). The former is seen to be an affective response and represents "the degree to which an employee identifies with the goals and values of the organization and is willing to exert effort to help it succeed" (Kalleberg & Berg, 1987, p. 159). The latter is seen to be more of a "rational" response and is an instrumental evaluation of the relative utilities of staying or leaving (Hrebeniak & Alutto, 1972; Ritzer & Trice, 1969). However, a number of scholars (Brown, 1990; Mowday, Porter & Steers, 1982; Stebbins, 1971) have pointed out that while loyalty is a good measure of affective commitment, intent to stay is likely to test affective commitment as well as calculative commitment. The intense debate on the issue (Meyer & Allen, 1984 vs. McGee & Ford, 1987) appears to have been resolved when the confirmatory factor analysis conducted by Meyer, Allen and Gellatly (1990) provided support for the

distinction between affective and continuance commitment in terms of the scales developed by Meyer and Allen (1984) for these constructs.

The work done in the area of organizational commitment shares several common assertions; commitment to an organization and its goals as well as the intent to stay with the organization are seen as desirable outcomes which promote organizational citizenship behavior, reduce turnover, and increase productivity and job satisfaction. However, the advent of the new organizational paradigm and the attendant effort to function efficiently in the changing environment disrupt the rules of this engagement and are leading firms to abandon their attempts at fostering commitment in return for a greater flexibility in operations and personnel. For example, the structural changes in the workforce resulting from offshoring have made the relationship of employees with their organization highly dynamic (Messner, 2013; Mir, Mosca & Mir, 2002). The contracted workers constitute an extremely mobile or unstable group who move from client organization to client organization and from one project group to another. They are unlikely to have a sense of belonging as far as a specific organization is concerned. Further their sense of belonging to their parent organization is likely to be weak due to their distance from their original employer and a variety of other reasons discussed earlier. It therefore stands to reason that the knowledge workers employed by the client through consulting firms will have lower levels of organizational commitment both to their parent and client organizations than the traditional workers used to have to their organization. In addition, constant adding and removing the contracted workers by the organization is likely to change the traditional employees' perception of the employer-employee relationship, which may make them feel less bonded or attached to the organization.

Given this, the following proposition may be employed to reflect the relationship between the post-offshoring employee and affective commitment:

Proposition 1 Post-offshoring employees will demonstrate lower levels of affective commitment to their organization than core employees.

CAREER OR OCCUPATIONAL COMMITMENT

Career or occupational commitment is the term used to describe the involvement of employees with their chosen occupation (Mueller, Wallace & Price, 1992) and is strongly linked with concepts such as career salience (Greenhaus, 1971; Taylor & Popma, 1990), cosmopolitanism (Gouldner, 1958), professional commitment (Aranya, Pollock & Amernic, 1981) and occupational commitment (Ritzer & Trice, 1969). The underlying theme of all these concepts is that employees may be committed to their careers in addition to (Hall, 1968) or instead of (Kalleberg & Berg, 1987) their organizations.

Greenhaus (1971) formulated the early dominant operationalization of career commitment in terms of the importance of a career to one's life. The 27 item measure he developed tested for the respondent's general attitude towards work, the depth of vocational planning, and the relative importance of work. This was later reformulated by Blau (1985; 1988) who defined career commitment as one's attitude towards one's profession. The original

instrument used items such as "I like this vocation too much to give it up" and "I spend a significant amount of time reading related journals or books" to measure career focused work commitment. Bishop and Solomon (1989) later proposed that the organizational commitment measure developed by Porter *et al* (1974) could be used to measure career commitment by substituting the word "career" for "organization" (Morrow, 1993).

While these conceptualizations of career commitment have focused on dimensions related to career loyalty (Morrow, 1993), the discussion on the issues related to this concept has evolved in the 1980s to include careerism (Feldman, Doerpinghaus & Turnley, 1995), career involvement (Steffy & Jones, 1988), career stages (Allen & Meyer, 1993) and the management of professional employees (Von Glinow, 1988). However, changes experienced by organizations in the late 1980s and the early 1990s have added a different flavor to this debate on careers. Corporate downsizing and business process reengineering (Hammer & Champy, 1993) have created the imperatives for a recalibration of work. Rapidly changing technologies are resulting in an accelerated pace of change and innovation and laid-off workers of the old paradigm are coming to the realization that their skills have no takers in the transformed environment (see the series on *The Downsizing of America* in the *New York Times*; March, 1996 as well as the analysis of the structural determinants of unemployment by Schervish, 1983). Many observers have commented on the need to retrain the workforce in order to suit the changing nature of jobs in the current economy (Block, 1990; Reich, 1992; Rifkin, 1995). Survival in the new organizational paradigm demands the ability to change one's skills in accordance to the requirements of the labor market (see Bluestone & Bluestone, 1992; Harrison, 1994; Harrison & Bluestone, 1988; Reich, 1992). To that end, we may see that the post-offshoring employees are far less wedded to the notion of continuance in the organization than traditional workers.

The following proposition may thus be deployed to discuss the continuance commitment of post-offshoring workers:

Proposition 2 Post-offshoring employees will demonstrate lower levels of continuance commitment to their specific occupation than traditional employees.

WORK COMMITMENT

Work commitment, often used interchangeably with work involvement (see Kanungo, 1982 and Mueller, Wallace & Price, 1992) has been shown to be an empirically distinct concept from both organizational commitment and career commitment (Morrow & McElroy, 1986) and refers to a commitment not to the organization or to a career but to employment or work itself (Lodahl & Kejner, 1965; Mueller, Wallace & Price, 1992). Kanungo (1982) has offered an operationalization of this concept based on his definition of work involvement as "belief in the centrality of work and the psychological identification with work in general" (Morrow, 1993:12). Other conceptualizations include the Protestant Work Ethic (Mirels & Garrett, 1971), work ethic (Buchholz, 1978), employment commitment (Jackson, Stafford, Banks & Warr, 1983), work motivation (Lawler & Hall, 1970) and work as a central life interest (Dubin, 1956).

Studies have suggested that work commitment is likely to be strongly related to organizational and career commitment (Kalleberg & Berg, 1987; Mueller, Wallace & Price, 1992). However, the conditions of the new organizational paradigm once again seem to challenge this conventional wisdom by creating work arrangements that ensure work commitment while paying little attention to developing organizational commitment.

The unstable nature of the work available to post-offshoring employees makes them acutely aware of their dependency on the fit between their expertise and market conditions (Messner, 2013). Hard work and long hours are perceived to be an intrinsic part of the profession. In addition, personal time is seen as an opportunity to hone existing skills and develop new ones. A fear of obsolescence and consequent unemployment is very pervasive. Survival in the profession demands that they stay abreast of the latest and the anticipated changes in the field. Further, the future employment of post-offshoring workers depends to a great degree on the establishment of a reputation as a hard worker. On the other hand, traditional workers were not subjected to these kinds of demands on a regular basis. Given this, the following proposition may be advanced:

Proposition 3 Post-offshoring employees will demonstrate a higher level of work commitment than core employees.

A FRAMEWORK FOR WORKING WITH THE POST-OFFSHORING EMPLOYEE

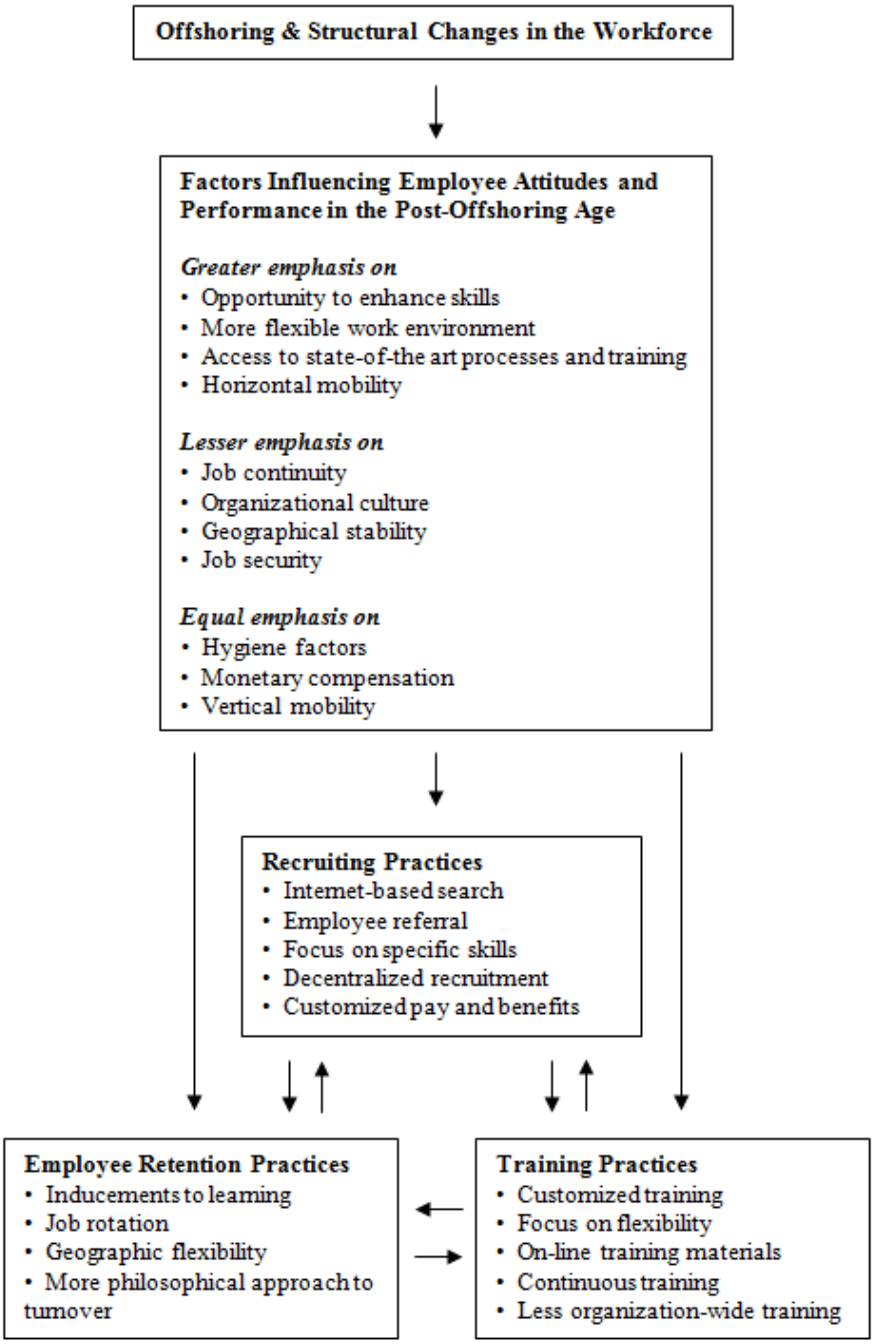
In the preceding sections, we outlined a paradox, where post-offshoring employees would demonstrate a higher commitment to their work, but a lower commitment to their organization than the traditional workers. Our proposition is consistent with the theoretical assumption that expectations of organizational loyalty are positively linked to the affective commitment of workers, and that work commitment is more linked to perceptions of environmental volatility.

Clearly therefore, the challenge posed by such a scenario for the organization (and by extension, the human resource manager) is to maintain the high level of work commitment demonstrated by the post-offshoring employees while simultaneously raising their affective commitment. In order to achieve this task, certain radical transformations have been undertaken by human resource managers. Not only does this involve the deployment of newer techniques, but it has also entailed the abandonment of a number of present techniques and practices in the service of the changing employee expectations. Some of the changes made in the human resource arena have been schematically represented in Figure 1. In this paper, we have chosen to focus on three of the human resource activities: recruitment, training and retention of employees. We also outline some of the factors that post-offshoring employees perceive as being of increased importance to them in their new jobs, along with those factors which they consider of lesser importance, and those factors that are as important to them as they had been to traditional workers.

Recruitment

In the past, recruiters were known to make use of mass mailings, employment agencies and other diffuse sources to hire candidates. However, with a sharpening of employee requirements and an increased emphasis on person-organization fit, recruiting tools have become more sophisticated (Cook 1997). These tools include a greater reliance on initial screening through internet-based interfaces (Slick, 1998) as well as a greater focus on employee referral.

Figure 1



However, it must be added that these tools have not yet replaced the formal interview as a primary recruiting tool, but are rather used to supplement the interview process.

Recruitment has also been decentralized to the departmental level, with HR only playing a supportive role in most cases, unless the recruitment involves a function-spanning executive. In a related change, the compensation packages for new employees are increasingly being customized rather than remaining within bureaucratic confines.

Training.

To cater to the demands and the needs of post-offshoring employees, the paradigm of centralized training programs, usually occurring at the time of entry into the organization has given way to a more flexible, on the job and customized training schedule (Marcum, 1999). Moreover, training schedules now go beyond a focus on job function, and concentrate equally on developing employee flexibility and currency with respect to future jobs. Finally, many new organizations have benefited greatly from providing on-line training materials. These materials, usually accessible from firewall-protected intranet sites, provide a variety of asynchronous training options for the self-motivated post-offshoring employee.

Retention

Retention of employees, especially sophisticated knowledge workers has always been a priority issue for organizations. However, in the post-offshoring, we find that the greatest inducements for employees to stay is a promise that the organization will be able to maintain employee currency, teach them newer skills, offer job rotation, and more experiential training (Garger, 1999). At the same time, we also find that employers are becoming increasingly philosophical about the issue of turnover, and in most cases, even budgeting for it by attempting to formalize and routinize work processes so that they can be easily transmitted to new employees.

Overall, in the new corporate landscape, we find that employees continue to explore avenues where they may actualize their work commitment. To that end, new workers favor opportunities to enhance their skills, a flexible work environment, access to newer hardware and software, and the chances of job rotation and horizontal mobility. Their diminished affective commitment finds expression in a diminished emphasis on job continuity and organizational culture. They are also less likely to be geographically rooted, and are more easily persuaded to move, even to foreign locations. Attitudes toward monetary compensation do not appear to have changed substantially over the years.

Ultimately, the picture of the post-offshoring employee is that of a driven and innovative worker, but one who is far less loyal to any organizational setting. Perhaps this is a mirror image of how organizations have defined their own prerogatives in the recent past. It is however important to note that much of what has been presented here as analysis really draws from experiences with relatively qualified labor. The position of unskilled labor in the post-offshoring economy has been rendered very precarious, and perhaps can only be remedied by concerted collective action to safeguard those employment benefits that were hitherto considered a matter of guarantee. This then, becomes the ultimate paradox of the post-offshoring era, where the skilled worker becomes more mobile and difficult to retain, while the unskilled worker suffers

from increasing vulnerability to the rapacity of exploitation, and must necessarily resort to collective action.

THE ETHICAL DIMENSION: THE ROLE OF ACADEMICS

Two key observations need to be made about the phenomenon of offshoring, based on the analyses undertaken in this paper. First, it is important to note that while offshoring has a less-than-overwhelming impact on domestic labor markets in the US and Europe, they have functioned as powerful signifiers to reduce the bargaining power of the workforce. For instance, studies show that 29% of all offshored jobs in the US in 2004 have been from unionized facilities, despite only 8% of the private workforce in the US being unionized (Bronfenbrenner & Luce, 2004, p. 29). Second, it must be conceded that the terms of the discussions on the impact of offshoring have taken on a troublingly ideological character, equating the welfare of corporate actors with that of society at large. As Levy (2005, p. 689) suggests, in this ideological representation, "wealth transfer is equated with wealth creation, corporate interests are conflated with those of society as a whole, and the process is portrayed as natural and inevitable, leading to prosperity for industrialized and developing countries alike." If we as organizational theorists are to do better than reproduce these ideological positions as benign, we will need to work on the assumptions that undergird our arguments. Our contention is that the inability of academics at large to present the ethical dimensions of offshoring to their students represents a major lacuna in the field, which has become even more salient in the wake of disastrous crises of management behavior and corporate governance all over the world.

Of late, theorists have begun to focus on the role of business education, as an implicit accomplice of ethically bankrupt economic systems (Chikudate, 2002). The perception that the curriculum in business schools is inadequate to address these challenges (Baetz & Sharp, 2004) has been linked to its inability to draw a distinct but definable line between the economic imperatives of profit generation and the fiduciary imperatives of ethically anchored and socially responsible behavior. The late Sumantra Ghoshal (2005), in a scathing, posthumously published analysis of business curricula contended that some of the "worst excesses of recent management practices have their roots in a set of ideas that have emerged from business-school academics over the last 30 years." Jeffrey Pfeffer (2005) supports Ghoshal's view, and refers to a 2000 study that found the percentage of MBAs in a firm's upper echelons to be a significant mediating variable in the link between firm size and malfeasance citations. From business theorists like Henry Mintzberg (2004) and Ian Mitroff (2004) to popular publications like *The Economist* (2005), a significant portion of the current round of critique of business schools stems from their inability to advocate social responsibility, and to ensure that corporations earn their putative role as servants of society and allocators of social product.

This phenomenon is all too observable in the analyses of offshoring that populate much of organizational research. A survey of the literature on offshoring in the organizational field is replete with "how to" advice on what can and should be outsourced. Lesser attention is paid on issues of inequality in exchange, of the role of offshoring in the perpetration of unfair labor practices in the West as well as the Third World, and the "everyday routines of worker resistance" (Mir & Mir, 2002) that occur on a routine basis in the post-offshoring employment

landscape, routines that we as organizational theorists have been trained to dismiss as "resistance to change" and "irrational" acts. Worker responses to the some of the oppressive dimensions of the regimes of offshoring both in the West and in the Third World, often take subtle and irrational forms. Resistance to work practices often takes on a more passive, "routine" dimension (Scott, 1985). Open confrontations are reduced, and replaced by "subtle subversions," by acts of "disengagement," and "ambiguous accommodations" (Prasad & Prasad, 1998). For instance, instead of more confrontational practices such as work-to-rule, workers who fear that that jobs may be offshored may paradoxically feign incompetence in carefully chosen arenas, thereby subverting organizational plans for a flexible workforce (Gottfried, 1994). This response resonates with prior research observations about worker responses to large-scale organizational changes such as computerization (Prasad, 1992) or re-engineering (Diplock, 1997). Workers periodically alter their level of enthusiasm for the process as a means of communicating their fears and expectations. There are also different ways in which resistance to offshoring is expressed in the recipient nations. Contrary to the dominant discourse that third world recipients of jobs from global corporations view this as manna from the heavens, the workplace in the periphery is also a contested terrain. Sometimes, rural workers in modern organizational settings may play out their resistance through the invocation of ghosts, spirits, legends and religious deities (Ong, 1987). They may choose to accentuate their separateness from the managerial class by refusing to accept organizational gifts, thereby ceremonially disputing the managerial posturing that there is more to the manager-worker relationship than a pact between wage and labor (Kondo, 1990). The everyday relations at the workplace on both sides of the offshoring divide are the sites of class struggle, of alienation, of the constitution of worker subjectivity, of the gendering of work and its subversion, of intra-organizational bargaining, and sometimes, of relations of imperialism and cultural dislocation. Representing this becomes an ethical prerogative for organizational researchers who wish to exhibit true commitment to their craft.

CONCLUSION

In this paper, we have provided a theoretical framework of the commitment profile of post-offshoring workers, contending that their attitudes toward the changing corporate workplace is one of diminishing affective commitment to the organization, coupled with a paradoxically increased work commitment. Based on this contention, we have designed a model whereby HR managers may attempt to raise the affective commitment of these workers without compromising their work commitment. The model also suggests the factors that post-offshoring workers tend to emphasize more in their new work roles. Paying more attention to these factors, we suggest, may lead to HR gains with respect to recruitment and retention.

Of course, this analysis does not address the broader issue of the social impact of offshoring. As we suggest in the paper, such an analysis should use economic class rather than national boundaries as the frame of reference. Often, the popular debates on offshoring gets mired in a nationalist dilemma (in particular, the popular press in the United States resorts to China-bashing as a means of presenting a critique of offshoring and its deleterious effects). The

reality is that offshoring benefits corporations and elites in both the source and destination, while creating an underclass in the first world as well as the third world.

In light of these issues, perhaps it is pertinent to revisit some of our initial concerns with respect to the employee-organization relationship. We had wondered whether the dominant paradigm of the employee-organization relationship had begun to shift from a psychological contract (Rousseau, 1995) to a model of economic exchange (Williamson, 1985). Unfortunately, much of our theoretical understanding, our survey of existing empirical research and our own empirical research on this issue points towards such a trend. In their rush to achieve immediate gains, or perhaps having their feet held to the fire of quarterly earnings by stockholders, employers are in danger of completely reconstituting their psychological contracts with employees. Such a situation, if it translates into greater HR costs, is likely to prove to be economically unsuitable in the long run.

Also, in the face of increasingly ideological representations of offshoring, organizational researchers and management academics face an important ethical task. They need to marshal their analytical tools to go beyond the hype, and uncover the class character of the dilemma, in a manner that respectfully theorizes the hesitant and inchoate voices of those who resist their exploitation by corporations, on both ends of the offshoring space.

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STRUCTURE AND THE MULTINATIONAL CORPORATION: HOLDING ON, OR LETTING GO?

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ABSTRACT

The 21st century has seen important changes in the strategies of multinational corporations (MNCs), especially as they have become adept at configuring their value chains to extract benefits from their diversified structures. This has raised very important issues relating to the mechanisms by which they can be controlled. The problem of MNC control in the current scenario is intensified by an important paradox: while most empirical research suggests that diversified firms need decentralized control systems, some studies also contend that singular strategies need to be developed to exploit synergies in the homogenizing world market. In this paper, we attempt to resolve this paradox by studying contingencies such as level of centralization, reward systems, transfer pricing, and the geographic and technological contiguities within MNCs. These contingencies will hopefully assist us in developing a new paradigm of MNC control.

INTRODUCTION

The issue of structure in multinational corporations (MNCs) has gained resurgence in the recent past, both in the academic literature (Purdy & Wei, 2014; Zhu & Hao, 2013; Jiao Anken & Beasley, 2012; Huang, Rode & Schroeder, 2011) and in the popular press (Duhigg & Bradsher, 2012). In the current era of globalization as well as global economic crisis (Wilson & Eilertsen, 2010), theories of the MNC are beginning to see a profound upheaval. Companies like Apple, Walmart, Proctor & Gamble and Toyota through the clever reconfiguration of their supply chains, are producing structural innovations at a dizzying pace, with theories from academics struggling to keep up with ground realities. As academic researchers, we need to understand as well as critique these arrangements. For instance, is the recent decision by Apple to use the services of an external watchdog organization like the Fair Labor Association to monitor its business practices related to structural issues? MNCs are coming under closer scrutiny by activist organizations seeking to monitor not just structural, but social, ethical and environmental issues (Erhemjamts, Li & Venkateswaran, 2013; Laud and Schepers, 2009). Very clearly, conscious decisions made by Apple to structure itself in a particular way through specific

relationships with suppliers, and being cognizant of social as well as economic consequences, mandate such strategic decisions. As theorists, we need to pay attention to the impact of structural matters, especially as they relate to the efficacy of MNC corporations in a rapidly changing global environment. It is perhaps for such reasons that theorists have begun to discuss MNC structure anew.

From issues of global strategy (Rugman, 2008; Peng & Pleggenkuhle-Miles, 2008) to that of the role of knowledge (Hong & Nguyen, 2009), and from the role of IT systems in MNC operations (Rangan & Sengul, 2009) to issues of the international supply chain (Ghemawat, 2008), the structure of MNCs operations has been continuously problematized. However, the greatest problem that MNCs currently face is that of *control,* be it on the accounting front (Cools, Emmanuel and Jorissen, 2008), operations (Dong, Zou & Taylor, 2008), headquarter-subsidiary relationship (Costello & Costello, 2008), relationships at the political level (Ambos & Schlegelmilch, 2007), or of aligning multiple control systems (Muralidharan & Hamilton, 1999). Researchers in the field of international business continue to grapple with the issue of control of the multinational corporation (MNC) (Birkinshaw, Toulan & Arnold, 2001; Earley & Mosakowski, 2000; Hamilton & Kashlak, 1999). This field of inquiry has an organic link with much of the 'content' research in strategic management. In particular, it draws substantially from prior research on the relationship between diversification and performance (Hill, 1994; Rumelt, 1974, 1982; Wernerfelt & Montgomery, 1988).

Typically, the issue of control in a MNC may be defined in terms of the paradox of having to design newer and tighter control systems in an atmosphere which celebrates decentralization (Simons, 1995). Many studies have posited that as the firm increases in size and diversity, the relationship between the corporate headquarters and the subsidiary needs to be decentralized (Jones & Hill, 1988; Vittorio, 2000). However, it is also true that the increased globalization of firm operations necessitate the development of a coherent, singular corporate strategy treating the world market as a single entity with globally interchangeable production and marketing operations (Drucker, 1986; Hout, Porter & Ridden, 1982). It therefore appears that the MNC is stuck in a paradox of having to *hold tight* and to *let go* at the same time.

In this paper, we attempt to resolve this paradox by discussing a number of contingencies associated with the control of the MNC. We begin by drawing from the literature on diversification of the multibusiness firm to develop a better theoretical sense of the control issues faced by MNCs. We then suggest four sets of contingencies that need to be taken into account while designing control systems for MNCs. These contingencies include whether or not the subsidiaries of the MNC are interdependent of each other, whether or not they transfer goods from each other on a regular basis, whether or not the headquarters possess the ability to monitor their actions, and whether or not these subsidiaries are geographically and technologically linked to each other. Based on these contingencies, we advance a series of propositions about the control of the MNC. We conclude with a discussion on the implications for *implementing* control systems based on these conclusions.

CONTROL OF THE MULTIBUSINESS FIRM: AN OVERVIEW

Readers of this paper will doubtless be familiar with the theories of the MNC. Inconsistencies in the international trade theory models of the MNC eventually led, by way of the investment theories of Hymer (1960), to the internalization hypothesis (Buckley & Casson, 1976). In this special case of the transaction cost thesis, the emergence and success of MNCs is linked to their ability to internalize operations across national boundaries. This in turn allows them to reduce risk, enhance economies of scale and scope, manage externalities and reap the arbitrage-advantages of international heterogeneities (see Hennart, 2001, for a succinct review). Several other theories of the MNC have come to the fore, such as the eclectic paradigm (Dunning, 1977), financial theories (Choi & Levich, 1990), knowledge-based approaches (Steiger, Hammou & Galib, 2014; Varzaru & Varzaru, 2013; Hislop, 2009, Kogut & Zander, 1993), and recently, institutional examinations of isomorphic and divergent trends within MNCs (Morgan & Kristensen, 2006).

Current research on the control of MNCs has always tended to focus on *contingencies* that make MNCs different from domestic corporations (Dicken, 2007). For example, theorists have discussed that MNCs need different control systems because of their deployment of technology (Vittorio, 2000), of the level of task complexity within the firm (Muralidharan & Hamilton, 1999), of diversities of national culture (Hamilton & Kashlak, 1999) and of accounting systems (Birkinshaw, Toulan & Arnold, 2001). Sometimes they have critiqued the confusing plethora of contingencies and contradictory findings on the issue (Taggart & Hood, 1999).

While these discussions are important, we feel that instead of proceeding directly to the issues that face the MNC, it would be more profitable to engage in a more general theoretical discourse. In other words, we would benefit by first examining the theoretical issues that underpin the control of *any* corporation, and then gradually build in the issues that make MNCs special.

When studying the general issue of the control of the multibusiness firm, we can see that it is closely related to studies of diversification as a strategy, especially the impact of structural diversification on organizational processes and systems (Bettis and Hall, 1981; Pitts, 1977). While some theorists saw *related* diversification as the key to better organizational control (Rumelt, 1974), others found similar support for *unrelated* diversification as well (Michel and Shaked, 1984).

Theorists studying control relationships in the multibusiness firm often focused on headquarter-subsidiary relationship in diversified corporations as the crux of the control issue. They tended to follow three distinct, if inter-related directions, which we have chosen to name the *structural control* school, the *intra-corporate* school, and the *transnational* school respectively.

The structural control school predominantly concentrated on the relationship between strategic business units (SBUs) that the headquarters of a corporation could foster (Hill, Hitt & Hoskisson, 1992). These theorists were inspired by the structural contingency models adopted in traditional organizational theory (Lawrence & Lorsch, 1967), and also by the writings of the early business historians (Chandler, 1962; Sloan, 1963), who observed the need for a balance between functional specialization by the SBU and "centralized oversight" by the headquarters as

the key to the management of the diversified firm. The primary conclusion reached by this strand of research was that *related* diversified organizations, which seek to exploit corporate economies of scope, would be better served by cooperative arrangements between SBUs, while *unrelated* diversified firms, in their quest for internal governance advantages, would profit more from inter-SBU competition.

The structural control theorists have been responsible for introducing the concept of refocusing or "downscoping" (Hoskisson & Hitt, 1994), whereby the over-diversified firm is seen as being potentially suboptimal. The theorists of downscoping then argue for a return to the "dominant business approach" (Hoskisson & Hitt, 1994, p. 197). Past, empirical research has suggested that there is an optimal level of diversification for each firm, beyond which the synergies associated with size and scope cannot be exploited (Markides, 1995). However, more recent studies have provided evidence that industry sector and related needs, in addition to size, may also mandate MNC structure (Kasper, 2009). For example, service organizations have evolved highly competitive and profitable structures appropriate for certain transnational concerns that require high levels of global integration and local responsiveness (Hislop, 2009; Laud, 2004).

The *intra-corporate school* was more concerned with evaluating the level of openness, subjectivity and trust that could be incorporated into the corporate-SBU relationship without loss of control. Drawing from Porter (1980), Rothschild (1979) and the Miles and Snow typology, this strand of research focused on a variety of control-related factors deployed by the corporate headquarters, such as incentive systems (Govindarajan, 1988), inter-SBU resource sharing systems (Gupta & Govindarajan, 1986), corporate-SBU relations (Gupta, 1987), socialization of new entrants (Goold & Quinn, 1990) and the choice between behavior based and outcome based control mechanisms (Govindarajan & Fisher, 1990). According to this school, depending upon the environment that various organizations operate in, they can be classified either as *open* or *closed* systems. The primary conclusion of this school is that open systems profit more from subjective, cooperative and trust-based inter-SBU relations, while closed systems are better served by objective, competitive and contractual inter-SBU relations. Table 1 depicts various characteristics, generic strategies and preferred organizational arrangements within open and closed systems:

Table 1
SYSTEM CHARACTERISTICS

OPEN SYSTEMS	CLOSED SYSTEMS
Miles and Snow strategy: Prospectors	Miles and Snow strategy: Defenders
Porter's generic strategy: Differentiation	Porter's generic strategy: Cost leadership
Open inter-SBU relationships	Competitive inter-SBU relations
Incentives linked to corporate performance	Incentives linked to SBU performance
Distributed information systems	Centralized information systems
Loose control systems	Tight control systems

The *transnational school* is the one that takes these conclusions that are generic to all businesses and locates them in MNCs. Scholars of this tradition contend that the structure of the diversified MNC is fundamentally influenced by its size and its level of diversity. MNCs operate

in conditions of great complexity,with respect to their product range, geographic spread and market demands. Thus, they need to experiment with a hybrid mixture of structures, including functionally specialized sub-units, matrix organizations, divisionalization, and occasionally, centralization (Taggart, 1998). At the level of human resources, transnational scholars stress the need to create “hybrid cultures” which may also be viewed as proxy control mechanisms (Earley & Mosakowski, 2000).

Despite their distinctness, the three approaches to organizational control identified above share some basic assumptions, which may be directly linked to *agency theory*. In all of these three schools, the relationship between headquarters and the foreign SBU levels mirrors the relationship between the shareholders (residual claimants) and managers. The entire control system may be viewed as an attempt by the residual claimants (headquarters) to retain control over agents (subsidiaries) despite informational disadvantages (Hill, 1988). Control systems ensure task programmability and outcome measurability as a means of finding "optimum, profit-maximizing forms of control" (Baiman, 1982). The setting up of behavior based or outcome based controls represents an attempt to preempt risk-averse behavior on the part of the agent (Eisenhardt, 1985), either by aligning the goals of the agent in the direction of the principal, or by ensuring access of the principal to the decision making processes used by the agent. An interesting sidelight associated with the agency argument relates to the role played by "influence costs", whereby lower level employees (agents) may wield disproportionate power over their superiors (principals) on account of their ability to withhold vital information. This has also been referred to as “the gatekeeper phenomenon” (Hill, 1994). However, a growing number of sophisticated organizations such as IBM, McKinsey, Hewlett-Packard, Ericsson, and Accenture and have structured highly advanced knowledge-sharing systems between HQ operations and SBUs driving the organization’s overall competitiveness (Laud, 2009).

CONTINGENCIES OF CONTROL IN MNC’S

One of the fundamental paradoxes associated with control of the diversified corporation is that of the tension between size and complexity. On one hand, we have to deal with the perceived globalization and the ensuing homogenization of large markets (Drucker, 1986, Ohmae, 1990), which demand that global organizations need to develop coherent and singular strategies (Hout, Porter and Ridden, 1982). On the other hand, the growing heterogeneity and independence of consumer preferences need to be matched by creating autonomous and flexible subsidiaries. Studies have shown that centralized structures will render organizations unresponsive, overloaded at the top and demoralized at the bottom (Birkinshaw and Morrrison, 1995). Partially centralized structures, geographic divisionalization and product-market based divisionalization are all inadequate responses to this double-bind. To be sure, the M-form organization, with its emphasis on functional specialization, represents a catch-all structure for all modern firms, but we need to explore the finer aspects of control within the M-form structure.

Evidently, the problem of the control of the multibusiness firm is not likely to be solved by a singular approach. A number of diverse relationships, structures, and organizational relationships need to be taken into account while determining an optimal control system for the

multi-business firm. In this paper, we present four different sets of contingencies and suggest ways in which we can achieve optimal control of the MNC. Each one of these contingencies represents a challenge to the information processing capacity of the firm, and the control systems suggested therein are primarily conceptualized as facilitating the flow of information across the hierarchies and the functional divides of the multi-business organization.

Centralized vs. Decentralized Structures

There are four major disadvantages associated with excessive centralization in an MNC (Egelhoff, 1988):

1. Overloading of the decision-making capacity of the top management team.
2. Time lost in moving information up and down the hierarchical structure.
3. Negative impact on SBU-level motivation, responsiveness and local competitiveness.
4. The unavailability of specific information at the top level.

On the other hand, it has been argued that greater interdependence between national subsidiaries may require greater dependence on the top management team as a coordinator in inter-SBU transactions (Govindarajan, 1988). The notion of the top management as a policeman gives way in such a case to the notion of top management as a resource allocator or facilitator, along with the associated cost for these overseer operations. Multinational corporations have been making unique adjustments in order to address this paradox. For instance, in the field of international business, scholars have theorized the manner in which multinational corporations (MNCs) are moving from centralized to network-based structures (Malknight, 1996). The logic that guides such innovative approaches in the MNC may be represented in the following two propositions:

P1 *MNCs characterized by low interdependence among SBUs are likely to perform better when using decentralized control systems than those using centralized control systems.*

P2 *MNCs characterized by high interdependence among SBUs are likely to perform better when using centralized control systems than those using decentralized control systems.*

However, both of these propositions are dependent upon how the MNC parent and SBU perceive their individual needs or degree of interdependence. Each may hold their own opinion based upon their personal bias for control or autonomy, interest in synergistic outcomes across the entire MNC, understanding and buy-in to the corporate strategy, and strength of the corporate culture and leadership. A dynamic tension may provide a useful introspective learning, but perceived mutually exclusive goals can cause seriously contentious behaviors.

Behavior-based versus Outcome-based reward systems

One of the challenges of multinational firms concerns reward systems. Should reward systems for national subsidiaries be based totally upon the performance of the subsidiary

(outcome-based), or should the also be rewarded for cooperating with corporate initiatives and sharing resources with other subsidiaries (behavior-based)? It must be kept in mind that reward systems are powerful tools of task programming and can also be used to render SBU performance visible to the headquarters (Govindarajan and Fisher, 1990).

As Eisenhardt (1989) points out, in an agency relationship, behavior-rewarding incentives work better in the case of high task complexity, while outcome-rewarding incentives work better when tasks are less complex. In other words, if the subsidiary is distant from the headquarters, or if it is engaged in activities that are unfamiliar to the headquarters, then an outcome-based reward system would be a better choice for the organization. However, if the subsidiary is close to the headquarters, and if it is engaging in tasks that are easily monitorable by the headquarters, a behavior-based reward system may be more appropriate.

Based on the above argument, we may derive the following propositions;

P3 *In MNCs characterized by information insufficiency at the HQ level regarding the actions of foreign subsidiaries, outcome-based reward systems are likely to lead to better performance than behavior-based reward systems.*

P4 *In MNCs characterized by information availability at the HQ level regarding the actions of foreign subsidiaries, behavior-based reward systems are likely to lead to better performance than outcome-based reward systems.*

Transfer pricing

Transfer pricing works as a control system by ensuring that when two or more profit centers participate in the development of the same product, the revenue they generate is fairly shared between them (Cools, Emmanuel & Jorissen, 2008; Eccles, 1985). In MNCs, transfer pricing also defines a pseudo-commercial transaction within the organization, the normative principle of such an exchange being that the price of the product should be similar or comparable to the price that would be charged, were the product to be purchased from or sold to external sources (Anthony and Govindarajan, 1995).

Transfer pricing is an area of great potential conflict between subsidiaries, for example, when agreements are unclear, contributions are perceived as not equivalent to returns, or the corporate strategy is either not understood or not accepted, often leading to a need for mediation by corporate headquarters. The challenge for the corporate mechanism in such a situation therefore, is to determine the correct balance between overall corporate optimization, SBU revenue distribution and SBU contribution. The SBU contribution may be a complex scenario involving issues of financial achievement, as well as intangibles of knowledge development and capital, image, and executive career interests.

If the transactions between subsidiaries are going to be conducted over a long term, formal negotiations between subsidiaries would work best. However in the case of once-off transactions between two subsidiaries, the relationship has to be situationally negotiated with both sides by the corporate arbitrator in the face of imperfect information. Both subsidiaries are then pulling toward a different equilibrium point, and the informational asymmetries in once-off

transactions may often be so great that corporate interests would be best served by decentralizing the decision at the subsidiary level.

It may be proposed that the headquarters of an MNC should mediate the transfer pricing process only when large, multiple or long term orders are being negotiated. For routine and once-off transfers, it would be best to relegate the decision to the SBU level, where they would follow a market-based course.

Based on the above reasoning, we propose the following propositions with respect to transfer pricing:

P5 *When negotiating inter-subsidiary transfer on a long term basis, corporate mediation is more likely to lead to better performance than market-based transactions.*

P6 *When negotiating inter-subsidiary transfer on an ad hoc basis, market based transactions are more likely to lead to better performance than corporate mediation.*

Contingencies of Technologies and Geographies

The diversified firm exists in the context of two important dimensional heterogeneities. It may operate in markets that are either geographically contiguous or geographically disparate, and in markets that are technologically contiguous or disparate. Consider for example a large diversified organization like General Electric. GE is likely to use different monitoring systems for a plant in Sao Paolo than for a similar plant in Seattle. Similarly, the control systems are going to be different in GE's Medical Imaging division in comparison with NBC. Such differing control arrangements are a result of the geographical and technological distances between various subsidiaries of GE.

Table 2 depicts the geographic and technological issues that an MNC faces.

Table 2
GEOGRAPHIC AND TECHNICAL ISSUES

	CONTIGUOUS GEOGRAPHICAL MARKETS	DISPARATE GEOGRAPHICAL MARKETS
CONTIGUOUS TECHNOLOGIES	Global Firm (Interdependent SBUs)	"Technoscape" (Shared upstream-know-how)
SEPARATE TECHNOLOGIES	"Supermarket" (Shared downstream know-how)	Conglomerate (Cash-Flow Based Controls)

When an MNC is characterized by the presence of SBUs sharing geographical as well as technological commonalties, it obviously needs to develop highly singular control systems. This is true because the headquarters has the ability to oversee the subsidiaries in a direct manner. In other words, all SBUs in such a firm may be governed by similar and even joint control systems.

However, such contiguities are not always available to the corporation. Sometime, despite operating in a very contiguous technology market (i.e. selling similar products); the MNC may have subsidiaries scattered across the globe. Such an organization may be termed a "technoscape". In a technoscape situation, the firm would be better suited to centralize many of

its upstream activities to achieve better economies of scope. For example, Ford Corporation has centralized all its R&D facilities into four global centers, from where all its cars are designed. However, it has completely decentralized its downstream activities such as marketing, sales and distribution.

The third situation involves a corporation that operates in a geographically limited (contiguous) zone but sells a whole range of products. Such corporations may be referred to as "supermarkets", for different technologies of the SBUs may be seen as products in a store, all awaiting perhaps the same consumer's attention. The supermarket types of MNCs are predominantly seen in the Asia-Pacific region, and sell a whole range of diverse products. Such corporations would be best served by control systems that emphasize *downstream* control. They need to explore common sales outlets, distribution channels and service contracts, and decentralize their upstream activities.

Finally, corporations that are characterized by disparity in both geographical and technological markets may be termed "conglomerates". In the case of conglomerates the best strategy would be one where each SBU can be treated as a local innovator and subjected only to financial control. The advantage of the conglomerate is that by exercising cash-flow based controls, the headquarters can create "internal stock markets' and improve internal allocative efficiency within the organization.

Based on the above discussion, we advance the following propositions:

P7 *MNCs whose subsidiaries are geographically and technologically contiguous are more likely to benefit from control systems that stress high inter-SBU interaction and common management goals.*

P8 *MNCs whose subsidiaries are geographically disparate but technologically contiguous are more likely to benefit from control systems that emphasize centralized upstream activities.*

P9 *MNCs whose subsidiaries are geographically contiguous but technologically disparate are more likely to benefit from control systems that emphasize centralized downstream activities.*

P10 *MNCs characterized by disparities in technological as well as geographical markets are most likely to benefit from control systems such as cash flow based controls and conglomerate-oriented approaches.*

CONCLUSION

Be it Apple through its innovative relationships with Chinese manufacturers or Walmart through its globally mobile logistics, MNCs have made structural innovations in the recent past that need to be addressed by theorists who seek to avoid getting dated in their formulations. In this paper, we have identified the fundamental control issue facing the MNC as a paradox: it has to *hold on* and *let go* at the same time. The issue is, when should it hold on (centralize its control systems) and when should it let go (treat each of its sub-units as autonomous companies in their own right)?

We addressed this issue first by examining the general literature on the diversified multi-business corporation. We concluded from that analysis that the fundamental issues in the control of the diversified corporation pertain to the relationship between the headquarters and the SBU, which could be seen as a quasi-agency relationship. Based on these findings, we examined several contingencies faced by the MNC, which in turn suggested a variety of different control arrangements. For example, when the SBUs (subsidiaries) of an MNC are interdependent, control systems need to be centralized, to foster the maximization of overall corporate performance.. When the SBUs operate relatively independently, control systems need to be decentralized. Similarly, at the level of incentive and reward systems, we argued that when a subsidiary is engaged in tasks that are not clearly observable by the headquarters, it would be better for the headquarters to reward the subsidiary on the basis of outcomes. However, when the subsidiary is clearly visible to the headquarters, and when its actions have potential implications for other subsidiaries, behavior-based reward systems would be more suitable. We also suggested that the headquarters of a corporation should mediate in transfer pricing issues between subsidiaries only when the transaction between subsidiaries has a longer time horizon. For once-off transactions, it would be best to let the subsidiaries treat it as a market transaction. Finally, we suggested that the control systems devised by an MNC should be a function of whether or not the subsidiaries are geographically and technologically contiguous.

Such control systems are already being implemented across MNCs. Many successful MNCs have begun to move from geocentric control systems towards a more transnational and multidomestic federated structures, which involves greater autonomy within the subsidiaries. In addition, they are also moving from a two- tier control (headquarter-subsidiary) to a more regional system where there is a three-tier hierachy (corporate headquarter-regional headquarters-subsidiary). For example, the Malaysian subsidiary of a corporation may report to its US headquarter only with respect to important financial information, but rely on day to day controls on its Asia-Pacific regional headquarter (which may be located in Singapore, Australia, or some regionally close country).

The motto of the MNC also appears to be to achieve total control of all subsidiaries at the financial level (financial control in MNCs is being centralized to a great extent), while making more and more concessions to decentralization in other spheres (such as brand management, distribution and even manufacturing). This dual policy of simultaneous centralization and decentralization is rendered possible due to the vast improvements in information technology that make it possible to store vast quantities of data, transfer it in split seconds across continents and engage in continuous feedback. For instance, at a pre-determined time, all subsidiaries of an MNC will transfer their raw financial data to the headquarters. The headquarter will in turn process the data; develop a variety of consolidated indicators (such as corporate-level return on sales data, for example). However, it will also be able to develop more decentralized indicators (such as regional and country level ROS figures), compare them against one another and against budget, determine which regions and countries are performing well or under-performing, and develop monitoring systems to make sure that performance does not stray from projections. Such centralized indicators are extremely useful at the level of financial data, but do not necessarily work at the level of other data such as market share of productivity due to inherent

heterogeneities (the products might be mature in one market and just being introduced in others, some plants may be better equipped to take advantage of economies of scale than others etc.). Thus, the paradigms of centralization and decentralization have to be deployed selectively across the subsidiaries of MNCs for optimal performance.

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DOES IT MATTER IF RESEARCHERS USE INDIVIDUAL DIMENSION CONSTRUCTS OR ONLY AGGREGATED CONSTRUCTS OF CULTURAL DISTANCE AND CULTURAL INTELLIGENCE?

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ABSTRACT

In a globalizing economy, growing numbers of employees work and live away from their home country. However, there are great risks involved with expatriate failure, which can lead to steep costs of lost business and employee relocation. The top reason for failure is the inability of the expat or their family to adapt to the host country. One way that has been used to study the likeliness of success is Cultural Intelligence, which has been linked with cultural adaptability and expatriate performance.

International experience has been linked with the development of Cultural Intelligence. There has been little study of the impact of the amount of time spent in another country on developing Cultural Intelligence, and results have been conflicting. Also, differences between home and host culture may be expected to have an impact on the development of Cultural Intelligence; in this study, Cultural Distance is used to compare country cultures. The interaction of time and Cultural Distance also may potentially reflect a relationship with Cultural Intelligence, and has not been used before, to our knowledge.

Studies of Cultural Intelligence and Cultural Distance are typically limited to use of an aggregate measure of the multidimensional constructs. This study examined the connection of experience abroad, measured by Cultural Distance between home and host country and time spent there, as an antecedent of Cultural Intelligence. This study is in response to criticism of using an aggregated measure of Cultural Distance, and employed the use of individual dimensions of both Cultural Distance and Cultural Intelligence. The primary objective of this paper is to focus on the degree to which potential additional important insights are contributed by the use of individual versus aggregated construct variables.

Using a sample of 185 university students, analysis of the aggregates and individual dimensions showed that important statistically significant insights were overlooked when using aggregated constructs, and that the use of individual dimensions provides more useful information. The introduction of time spent in another country as an antecedent to Cultural Intelligence showed statistical significance with only Cognitive and Behavioral Cultural Intelligence, also providing support for the explanatory power of individual dimensions. Finally, analysis of the time and Cultural Distance variables show varied results, adding significance to a model of Meta-Cognitive Cultural Intelligence.

INTRODUCTION

Compared with previous centuries, the 21st Century sees a proliferation of cars speeding across valleys, trains penetrating mountains, and planes defying the barriers formed by oceans. The world has been transformed by innovations in transportation and communication technologies, bringing people and nations closer together than ever before. Economies have been transformed by the sourcing of materials and competencies from where they are most abundant, and travel has increased in pursuit of lower costs and new markets. Revenues of the airline industry have more than doubled to an expected $830 million in 2014, from $370 million at the turn of the millennium (Euromonitor International, 2014), reflecting this boom. Geographic miles, however, are not the only distance between places as is quickly learned from time spent abroad, and success in international relations are not guaranteed simply by physically showing up in another country. "One's destination is never a place, but rather a new way of looking at things" (Miller, 1957). One must be able to see through the eyes of those whom they are working and negotiating with.

In the context of business, the ability of individuals to adapt to multicultural situations is of particular importance to multinational and global organizations. There are estimated to be over 900,000 global organizations, and over one million people working and living away from their home countries (Odell & Spielman, 2009). There are steep risks and costs involved with expatriate failure including lost time (Yeaton & Hall, 2008), damage to a company's image (e.g. internal and external) (Harzing & Christensen, 2004) and premature return to home country due to assignment failure (Harvey, Napier, & Moeller, 2011). The most commonly cited reasons for expatriate failure include the inability of managers or their families to adapt to the host country (Stone, 1991), and Selmer et al (2007) caution companies to be particularly diligent when selecting a candidate for an international assignment. Thus companies need to be able to determine the ability of the candidate to adapt and be successful in the challenging environment of cross-cultural assignments.

One tool to make such determination that has emerged in relatively recent times has been that of "cultural intelligence" (Earley & Ang, 2003). Since its introduction, there has been active study to identify antecedents and outcomes of cultural intelligence, including its ability to positively impact cultural adaptability (Ward & Fischer, 2008) and expatriate performance (Shaffer & Miller, 2008), among others. One antecedent that has been examined in a limited manner is that of foreign travel experience (Crowne, 2008). However, little research has examined whether longer times in a foreign country really resulted in a greater impact on cultural intelligence than did visits of a shorter duration (Ang, Van Dyne, & Tan, Cultural Intelligence, 2011). Other research has also suggested that the cultural distance (differences in cultural values) between the native country of the traveler and the country visited, may have an impact on the development of cultural intelligence which varies based on that distance (Ramsey, Leonel, Gomes, & Reis-Monteiro, 2011). However, the many past attempts to measure the impact of cultural distance has come under criticism for a number of reasons including the prevalence of using only aggregated measures of distance between what is now six of Hofstede's cultural values (Shenkar, 2012).

The objective of this study is to address these gaps in the literature by exploring the potential differences of the impacts of individual and aggregated cultural distance measures on each of the cultural intelligence dimensions, as well as to explore the potential interaction of each of the individual cultural distances and the time spent in a foreign country with regards to their impact on each of the dimensions of cultural intelligence. The results of this study may have the potential to assist educators and researchers in building models for developing cultural intelligence that in turn will assist business in their selection and development efforts when addressing this important competency.

CULTURAL INTELLIGENCE

Cultural Intelligence, or CQ, is defined as "an individual's capability to function and manage effectively in culturally diverse settings." (Ang & Van Dyne, 2008) In a world with increasing cross-border interactions both professionally and socially, an individual's ability to effectively interact with people and organizations of different origin is becoming more important. CQ is a way to measure this ability, and is unique from other measures of "real-world" intelligence, such as social intelligence, emotional intelligence, and practical intelligence. Social intelligence relates to dealing with people, emotional intelligence describes self-awareness and self-management, and practical intelligence pertains to getting things done (Albrecht, 2006). Earley and Ang (2003) argue that while socially and emotionally intelligent individuals are able to interpret and categorize behavioral manifestations into specific "universal" behaviors and recognize idiosyncratic individual behavior that differs from this pattern within their own cultural frame of reference, it requires a culturally intelligent person to recognize the behaviors and patterns that are rooted in an unfamiliar culture. The result, according to Early and Ang, is that it is possible for managers to be socially and emotionally intelligent in their own cultures but not in a culturally unfamiliar setting.

Cultural Intelligence is a multidimensional construct that includes metacognitive, cognitive, motivational and behavioral dimensions (Ang & Van Dyne, 2008). Its developers see metacognitive CQ as the level of awareness an individual has in cross-cultural interactions which involves "planning, monitoring, and revising mental models of cultural behavior." It is the mental *process* one goes through when interacting with people of different backgrounds. The cognitive dimension of CQ, in contrast, relates to the cumulative level of *knowledge* one has of norms, practices, and conventions in different cultures. These are learned both through educational mediums and personal experiences. Motivational CQ reflects the amount of energy and attention that one is able to direct towards cultural learning, and is based on personal interest and confidence in cross-cultural situations. The last dimension, behavioral CQ, is the ability to interact effectively, both verbally and nonverbally. It differs from formerly mentioned dimensions in that it has to do with actions or behavior of the individual, while the others relate to the mind. Ang and Van Dyne see metacognitive, cognitive, motivational and behavioral CQ as different types of capabilities that together form the total cultural intelligence construct (TCQ).

When considering the potential impact of CQ on addressing a range of culturally specific problems, it would seem that each of the four cultural intelligence dimensions may play a significant role. For example, research has suggested that one or more of the cultural intelligence dimensions have an impact on the development of problem solving cross-cultural negotiation skills (Engle, Elahee, & Tatoglu, 2013), cross-cultural adaptation (Dagher, 2010; Ward & Fischer, 2008), the likelihood of accepting a job in a foreign country (Engle, Dimitriadi, & Sadrieh, 2012), task performance (Ang S. , et al., 2007), trust within teams (Rockstuhl & Ng, 2008), group performance (Huber & Lewis, 2010), global leadership skills (Ng, Van Dyne, & Ang, 2009), and expatriate performance (Lee & Sukoco, 2010). Because of the implications attached to cultural intelligence, for both research purposes and business practices there is good reason to investigate possible predictors of the CQ measure.

There are a number of antecedents of cultural intelligence that have been identified and/or proposed. These include the personal characteristics of openness to experience, risk orientation and need for control (Engle & Nehrt, 2012), language skills, living in diverse cultural settings, cross-cultural work experience (Triandis, 2008), parental and educational experiences (Shannon & Begley, 2008), language and multicultural experiences (Engle, Dimitriadi, & Sadrieh, 2012;

Shaffer & Miller, 2008), personality (Ang & Van Dyne, 2008; Shaffer & Miller, 2008), and arguably one of the most promising antecedents of cultural intelligence: experience, including international travel, work experience, study abroad, and perceived self-efficacy (Engle & Crowne, 2014; Crowne, 2008; Lee & Sukoco, 2010; MacNab & Worthley, 2011).

INTERNATIONAL EXPERIENCE AND CULTURAL INTELLIGENCE

Shannon and Bagley (2008) found international travel work related experience had a significant impact on CQ, however, they did not measure time spent during these experiences. Tay, Westman and Chia (2008) examined work related short-term foreign travel experiences and concluded that, contrary to their expectations, the short-term work experiences did not significantly predict cultural intelligence. Lee and Sukoco's (2010) results suggested that international work related experiences did not have a direct effect on cultural adjustment and cultural effectiveness but did have a significant impact when combined with a high level of cultural intelligence. Unfortunately, they did not examine impact of experience on the development of cultural intelligence. Tarique and Takeuchi (2008) examined the impact of non-work related travel experience and found the number of trips and the time spent, as well as the interaction of number of experiences and time to be significant predictors of cultural intelligence. They also found that when individuals had shorter (time) international non-work experiences, the number of such experiences were a significant predictor of cultural intelligence. They did not take into consideration, though, the potential cultural difference in one or more of the travel experiences. Engle and Crowne (2014) found relatively short one to two week non-work, activity-managed experience in a country did result in a significant increase in cultural intelligence. However, they also did not consider the cultural differences between native country and the country visited and did not compare it to longer such visits.

In their review of the literature Ang, Van Dyne and Tan (2011) concluded that international experience results in studies were conflicting and more research in this area was needed. This study will specifically examine a specific international experience that has not to our knowledge been specifically examined to date: the specific foreign country where the most time has been spent, including the duration of time spent there.

CULTURE

Hofstede (2010) defines culture as the "collective programming of the mind that distinguishes the members of one group or category of people from others" (p. 6). Culture is therefore learned and the result of one's social environment. Hofstede (1980) originally identified four cultural values which differentiate one culture from another: power distance, individuality versus collectivism, masculinity versus feminism, and uncertainty avoidance. Hofstede (2001) later added a fifth dimension: long-term versus short-term orientation. Hofstede, Hofstede, and Minkov (2010) added a sixth dimension—"indulgence versus restraint" (indulgence)—and recently Hofstede replaced long-term orientation with "pragmatism versus normative" (normative) in his *Hofstede Center* (Hofstede, 2014). Therefore, for the purposes of this study this most current list of cultural value dimensions will be used to define culture differences between countries. These are defined as follows (Hofstede, Hofstede, & Minkov, 2010):

Power Distance: "the extent to which the less powerful members of institutions and organizations within a country expect and accept that power is distributed unequally" (p. 61).

Individualism vs. Collectivism: Individualism "pertains to societies in which the ties between individuals are loose: everyone is expected to look after him-herself and his or her immediate family. Collectivism…pertains to societies in which people from birth onwards are integrated into strong, cohesive in-groups, which throughout people's lifetime continue to protect them in exchange for unquestioning loyalty" (p. 92).

Masculinity vs. Femininity: "A society is called masculine when emotional gender roles are clearly distinct: men are supposed to be assertive, tough, and focused on material success, whereas women are supposed to be modest, tender, and concerned with the quality of life. A society is called feminine when emotional gender roles overlap: both men and women are supposed to be modest, tender, and concerned with the quality of life" (p. 140).

Uncertainty Avoidance: "the extent to which the members of a culture feel threatened by ambiguous or unknown situations" (p. 191).

Indulgence vs. Restraint: Indulgence stands for "a tendency to allow relatively free gratification of basic and natural human desires related to enjoying life and having fun. Restraint reflects a conviction that such gratification needs to be curbed and regulated by strict social norms" (p. 281).

Pragmatism vs. Normative: "societies who score low on this dimension (normative) prefer time-honored traditions and norms while viewing societal change with suspicion. Those with a culture that scores high (pragmatic), on the other hand, take a more pragmatic approach: they encourage thrift and efforts in modern education as a way to prepare for the future" (Hofstede, 2014).

CULTURAL DISTANCE

The concept of "distance" has been defined as the numerical description of the space between objects (Kandogan, 2012) and has been extended to measure gaps between countries. Distance between countries can be measured by using constructs from institutional theory, including formal and informal institutions, and other dividing factors such as geographic distance, language differences, and economic differences (Hutzschenreuter, Kleindienst, & Lange, 2014).

Culture is considered an informal institution and has been a very popular construct to use when measuring distances between countries (Kim, Kirkman, & Chen, 2008; Shenkar, 2012). Perhaps the most popular measure of the often used construct of cultural distance is the aggregated value using Hofstede's (1980) four cultural value dimensions, as proposed by Kogut and Singh (1988), and is often referred to as the "Kogut and Singh Index" (Kandogan, 2012). Over time it has also attracted criticism, as there are conceptual and methodological deficiencies with the construct, including the methodological observation that this measure weights all of Hofstede's dimensions equally, neglecting to investigate any variability or even theoretical support for their impact. (Shenkar, 2001; 2012). Some of the conceptual shortcomings also include assumptions that the distance is symmetric in both directions between countries (Zaheer, Schomaker, & Nachum, 2012) as well as criticisms of the measure's data source (McSweeney, 2002).

Still, a number of researchers have found a way forward. To completely reject the Hofstede model and its use to measure distance would be throwing away valuable insights (Signorini, Wiesemes, & Murphy, 2009). The roots of Cultural Distance in Hofstede's data may, in part, explain conflicting results when the aggregate has been used. More importantly, though, there is

also clearly a missing level of analysis by using a singular aggregate. While we recognize the importance of a distance measure including more than just the measures of Hofstede's cultural dimensions, for the purposes of this study we are starting this journey to measure distance by concentrating on only the cultural distance portion of a broader distance construct. This study begins to address the gap in research regarding the impact of international travel experiences on Cultural Intelligence by exploring the role of Cultural Distance between the subject's home country and the foreign country visited.

RESEARCH QUESTIONS

In an effort to better understand an individual's international travel experience as a potential antecedent to cultural intelligence, our goal in this research paper is to explore the potential differences between aggregate and individual measures of cultural distance, with and without interaction with time, using Hofstede's most recent cultural value dimensions. Our specific research questions are:

RQ1a *How will the cultural distance of each of Hofstede's cultural value dimensions impact each of the four individual measures of cultural intelligence as well as total cultural intelligence?*

RQ1b *How will the aggregated cultural distance of all Hofstede's dimensions impact each of the four individual measures of cultural intelligence as well as total cultural intelligence?*

RQ2 *Given the country where a subject has spent the most time, how has that time impacted each of the four dimensions of Cultural Intelligence as well as total cultural intelligence?*

RQ3a *Given the country where a subject has spent the most time, to what degree does each of Hofstede's cultural value dimensions interact with time spent to impact each of the four individual measures of cultural intelligence as well as total cultural intelligence?*

RQ3b *Given the country where a subject has spent the most time, to what degree does the aggregated cultural distance of all Hofstede's dimensions interact with time spent to impact each of the four individual measures of cultural intelligence as well as total cultural intelligence?*

Answers to the above research questions will give us additional needed insight to the potential relationship differences in individual versus aggregated measures of cultural distance and cultural intelligence, as well as further insight to the role of cultural distance and time with regards to the level of cultural intelligence.

METHODOLOGY

The sample for this study consisted of 185 undergraduate business students from a single university representing a wide range of business majors. There were 96 men (52%) and 89 women (48%) with an average of 3.5 years of university education and average age of 20.9. It was felt that this subject population would be appropriate as the majority of students are in the latter stage of their undergraduate business education, about to enter the workforce, and many of the students will have had the opportunity for exposure to foreign travel and study abroad experiences that were being examined in this study.

The data were collected from questionnaires administered in a classroom setting and were voluntary, and subjects were not given incentives for survey completion. There were a total of 226 questionnaires handed out and those subjects who were not U.S. citizens and/or whose questionnaires were not adequately completed were eliminated reducing the number to 210 usable questionnaires (93%). In addition there were 25 subjects whose country where they spent the most time did not have available cultural dimension data with which to calculate cultural distance. This resulted in 185 usable questionnaires (82%).

Cultural intelligence was measured using the self-report instrument developed and validated by Van Dyne, Ang, and Koh (2008). All questions used Likert scales, with "1" being "strongly disagree" and "7" being "strongly agree". A sample question is "I am conscious of the cultural knowledge I apply to cross-cultural interactions." During the validation process these authors identified the 20 items with the strongest psychometric properties with a Chi-square of 822.26 (164 *df*), CFI of 0.92. and RMSEA of 0.08. Nested model comparisons demonstrated the superiority of the hypothesized four-factor CQ model. The instrument, tested for generalizability across samples and analysis using structured equation modeling (SEM) demonstrated good fit, also finding acceptable Cronbach alphas along with Chi-Square of 381.28, CFI of .96, and RMSEA of .05. These researchers also completed an analysis of generalizability across time, generalizability across countries, generalizability across methods (observer report and self-report), as well as discriminant validity, incremental validity, and predictive validity (with cultural decision-making, interactional adjustment, and mental well-being as dependent variables). Their study concluded that the construct appeared to have a clear, robust, and meaningful structure with a high correlation between self-report and observer report instruments. Shannon and Begley (2008) confirmed the stability of the psychometric properties of the Van Dyne, Ang, and Koh (2006) model, and in a detailed review of CQ instruments Matsumoto and Hwang (2013) concluded that there was considerable evidence for construct, convergent, and predictive validities of this instrument.

Factor analysis of the four CQ factors was also conducted using this study's dataset (maximum likelihood, varimax rotation), which confirmed all four CQ factors. The lowest loading of the twenty questions making up the four CQ factors is above .500, and therefore above the .400 threshold suggested for acceptable loading factor items (Hair, Black, Anderson, & Tatham, 2006). In addition, all Cronbach alpha scores are above the .700 level, both of which suggesting satisfactory reliability (Hair, Black, Anderson, & Tatham, 2006).

For the calculation of cultural dimensions the six dimensional model of Hofstede as described by Hofstede, Hofstede, and Minkov (2010) for the dimensions of Power Distance, Individuality, Masculinity, Uncertainty Avoidance, and Indulgence – and for Pragmatism (formerly Long-Term Orientation) as described by Hofstede (2014). Cultural distance (CD) for each dimension was calculated using the formula:

$$\sqrt{(Country\ Dimension_i\ Score - US\ Dimension_i\ Score)^2}$$

where $Dimension_i$ represents one of the six cultural dimensions being measured. The aggregated or total cultural distance score is the sum of each of all six cultural distances.

Subjects were asked to indicate the country outside of the USA where they have spent the most time and to indicate the total approximate time in weeks that they spent there (cumulative), allowing the calculation of a "Time" score for each subject. Thus, the cultural distance was multiplied by the number of weeks spent in that country to give the *CD*Time* score. The students were also asked to list the countries outside of the USA and the sum of those countries resulted in

the total number of countries visited score (# countries). If a subject had never traveled outside the United States they received a score of "0". Cultural distance and time interaction was calculated for each of the six individual cultural dimensions (e.g. CDMAS for the cultural distance for the masculinity dimension), as well as for the total cultural distance (the sum of all six dimensions).

RESULTS

As can be seen in Table 1, of the four individual cultural dimensions, Motivational CQ had the highest mean score (4.98) and Cognitive CQ had the lowest mean score (3.51). The Total CQ score, which was calculated as the mean of all four dimensions, was 4.41. Cultural distance scores of the countries in which the subject spent the most time varied from a high of 27.16 for CD Individuality to a low of 9.64 for CD Masculinity. The mean total cultural distance score which was calculated as the sum of all six cultural dimensions was 112.47.

Table 1
Descriptive Statistics

	N	Min	Max	Mean	Std. Dev.
Meta-Cognitive CQ	185	2	6.75	4.83	0.89
Cognitive CQ	185	1.67	5.5	3.51	0.83
Motivational CQ	185	1.8	7	4.98	1.02
Behavioral CQ	185	1.6	7	4.39	0.99
Total CQ	185	2.53	6.21	4.41	0.71
CD Power Distance	185	0	50	15.62	14.76
CD Individuality	185	0	74	27.16	12.65
CD Masculinity	185	0	57	9.64	9.14
CD Uncertainty	185	0	54	22.38	16.99
CD Pragmatism	185	0	67	19.41	16.57
CD Indulgence	185	0	64	18.26	16.23
CD Total	185	0	251	112.47	72.24

Table 2 describes the time spent by the subjects in the single country where they spent the most time outside the USA. Of all subjects in this study, 23 or 12% had never been outside of their home country and 97 (53%) had been in another country with most time spent from 1 to 4 weeks, while 37 (20%) had been in another country between 5 and 20 weeks, and 28 (15%) 20 or more weeks. The mean time for all subjects is 44 weeks, a number impacted by 19 of the students that spent 2 or more years living in that country. The median time spent in the country for all subjects was 2 weeks.

Table 2
Time Spent in Weeks*

# weeks	number	%
0	23	12
1 to 4	97	53
5 to 20	37	20
20 plus	28	15

In the next series of analyses we used each of the four cultural intelligence (CQ) dimensions, as well as total cultural intelligence, as dependent variables and examined the impact of the control variables (age, gender, education) and each of the following independent variables: total/aggregate cultural distance between the USA and the foreign country in which the subject has

spent the most time (CD); power distance cultural distance (CDPDI); individuality cultural distance (CDIND); masculinity cultural distance (CDMAS); uncertainty avoidance cultural distance (CDUAI); pragmatism cultural distance (CDPRA); indulgence cultural distance (CDIVR); time spent in the country in which the most time in a foreign country has been spent by the subject (Time); the cultural distance (CD) interaction with time (CD*Time); the power distance cultural distance interaction with time (CDPDI*Time); the individuality cultural distance interaction with time (CDIND*Time); the masculinity cultural distance interaction with time (CDMAS*Time); the uncertainty avoidance cultural distance interaction with time (CDUAI*Time); the pragmatism cultural distance interaction with time (CDPRA*Time); and the indulgence cultural distance interaction with time (CDIVR*Time).

Table 3, using the subjects' level of meta-cognitive cultural intelligence as the dependent variable, indicates that individually neither the total cultural distance (CD) nor the time spent (Time) were significant predictors of meta-cognitive CQ. In addition, none of three control variables were significant predictors. However, the cultural distance of masculinity (CDMAS) was a significant predictor as were CDPDI*Time, CDIND*Time, CDMAS*Time, and CDIVR*Time. CDUAI*Time and CDPRA*Time were not significant predictors of meta-cognitive CQ. In none of these cases were any of the control variables significant.

Table 4, using the subjects' level of cognitive cultural intelligence as the dependent variable, found that none of the cultural distance variables predicted the level of cognitive CQ. However, time spent in another country did have a significant impact on this level. Time interaction with cultural distance variables did not significantly add the explanatory power of time used alone. None of the control variables were significant in any of the above models.

Table 5, using the subjects' level of motivational cultural intelligence as the dependent variable, found that cultural distance (CD) did have a significant impact on motivational CQ. Power distance cultural distance, masculinity cultural distance, uncertainty avoidance cultural distance, and pragmatism cultural distance were found to be significant predictors, with indulgence cultural distance (CDIVR) having the strongest ability to predict motivational CQ of any of these. Individuality cultural distance was not significant. Time was not a significant predictor but when interacting with cultural distance all interactions, except CDUAI*Time and CDPRA*Time, were significant predictors (all with significantly lower standardized betas than CDIVR). No control variables were significant in any of these models.

Table 6, using the subjects' level of behavioral cultural intelligence as the dependent variable, found cultural distance (CD) to have a significant impact on behavioral CQ. CDIVR and CDPRA were significant predictors, while CDMAS had the most significant impact with the strongest standardized beta of all the models. CDIND, CDPDI, and CDUAI were not significant. Time was a significant predictor, as were all the individual cultural distance and time interactions, with the exception of CDUAI, which was not significant. However, none of the interactions had a standardized beta at the level and significance as strong as CDMAS. Education was found significant with all interactions (not any cultural distance alone variables), with the exception of CDUAI*Time which was not significant. Age and gender were not found to be significant in any of the models.

Table 3
Meta-Cognitive CQ (Dep.Var.)
Standardized Betas

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10	Model 11	Model 12	Model 13	Model 14	Model 15
Age	0.068	0.067	0.067	0.040	0.055	0.067	0.071	0.04	0.025	0.021	0.024	0.03	0.03	0.039	0.024
Gender	-0.108	-0.105	-0.105	-0.125	-0.092	-0.108	-0.109	-0.101	-0.098	-0.098	-0.096	-0.113	-0.101	-0.101	-0.097
Education	0.063	0.065	0.067	0.060	0.078	0.06	0.058	0.066	0.072	0.079	0.071	0.072	0.064	0.07	0.077
CD	0.03														
CDPDI		0.003													
CDIND			0.027												
CDMAS				**1.50***											
CDUAI					-0.083										
CDPRA						0.037									
CDIVR							0.056								
Time								0.110							
CD*Time									**0.171***						
CDPDI*Time										**0.187***					
CDIND*Time											**0.177***				
CDMAS*Time												**0.204****			
CDUAI*Time													0.087		
CDPRA*Time														0.122	
CDIVR*Time															**0.169***
R-Sq	0.022	0.021	0.022	0.043	0.028	0.023	0.024	0.033	0.049	0.054	0.051	0.061	0.029	0.035	0.048
Adj.R-Sq.	0.007	0.001	0	0.021	0.006	0.001	0.003	0.011	0.028	0.033	0.030	0.041	0.007	0.014	0.027
F-Score	1.01	.0976	1.01	2.01	1.29	1.04	1.12	1.52	2.31	2.58	2.41	2.95	1.32	1.65	2.29
Significance	.400	.420	.400	.096	.277	.388	.350	.198	.060	**.039**	.051	**.022**	.263	.163	.062

*p<.05; **p<.01; ***p<.001

Table 4
Cognitive CQ (Dep. Var.)
Standardized Betas

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10	Model 11	Model 12	Model 13	Model 14	Model 15
Age	0.026	0.025	0.023	0.001	0.022	0.023	0.027	-0.044	-0.044	-0.044	-0.043	-0.027	-0.014	-0.025	-0.045
Gender	0.008	0.016	0.017	0.006	0.021	0.011	0.014	0.030	0.031	0.030	0.035	0.010	0.031	0.028	0.033
Education	0.110	0.121	0.124	0.114	0.117	0.102	0.106	0.120	0.129	0.137	0.127	0.127	0.115	0.125	0.136
CD	0.107														
CDPDI		0.067													
CDIND			0.097												
CDMAS				0.115											
CDUAI					0.007										
CDPRA						0.177									
CDIVR							0.082								
Time								**.265*** **							
CD*Time									**.266*** **						
CDPDI*Time										**.265*** **					
CDIND*Time											**.269*** **				
CDMAS*Time												**.265*** **			
CDUAI*Time													**.196** **		
CDPRA*Time														**.204** **	
CDIVR*Time															**.264*** **
R-Sq	0.028	0.022	0.027	0.030	0.017	0.031	0.024	0.083	0.084	0.084	0.086	0.085	0.054	0.057	0.083
Adj.R-Sq.	0.007	0	0.005	0.008	-0.005	0.009	0.002	0.063	0.063	0.063	0.065	0.065	0.033	0.036	0.063
F-Score	1.31	0.994	1.23	1.37	0.788	1.42	1.09	4.08	4.14	4.12	4.21	4.19	2.57	2.71	4.08
Significance	.267	.412	.300	.245	.534	.229	.361	**.003**	**.003**	**.003**	**.003**	**.003**	**.039**	**0.031**	**.003**

*p<.05; **p<.01; ***p<.001

Table 5
Motivational CQ (Dep. Var.)
Standardized Betas

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10	Model 11	Model 12	Model 13	Model 14	Model 15
Age	0.069	0.064	0.057	0.021	0.094	0.058	0.079	0.031	0.014	0.014	0.016	0.023	0.031	0.026	0.013
Gender	-0.045	-0.021	-0.014	-0.034	-0.048	-0.032	-0.038	-0.006	-0.003	-0.003	-0.001	-0.016	-0.002	-0.005	-0.001
Education	0.021	0.049	0.049	0.034	0.001	0.007	-0.005	0.041	0.047	0.052	0.046	0.047	0.038	0.045	0.052
CD	**.291*** **														
CDPDI		**.149***													
CDIND			0.134												
CDMAS				**.193****											
CDUAI					**.265*****										
CDPRA						**.252*****									
CDIVR							**.332*****								
Time								0.099							
CD*Time									**.169***						
CDPDI*Time										**.162***					
CDIND*Time											**.179***				
CDMAS*Time												0.135			
CDUAI*Time													0.135		
CDPRA*Time														0.128	
CDIVR*Time															**.168***
R-Sq	0.089	0.028	0.024	0.041	0.073	0.068	0.114	0.016	0.033	0.033	0.031	0.038	0.024	0.022	0.033
Adj.R-Sq.	0.069	0.007	0.002	0.020	0.052	0.048	0.094	-0.006	0.012	0.011	0.010	0.016	0.002	0.001	0.012
F-Score	4.40	1.31	1.11	1.94	3.54	3.29	5.78	0.712	1.55	1.53	1.44	1.75	1.10	1.01	1.54
Significance	**.002**	.412	.354	.106	**.008**	**.012**	**.000**	.585	.189	.197	.222	.140	.357	.405	.193

*p<.05; **p<.01; ***p<.001

Table 6
Behavioral CQ
Standardized Beta

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10	Model 11	Model 12	Model 13	Model 14	Model 15
Age	-0.039	-0.042	-0.047	-0.091	-0.034	-0.046	-0.034	-0.090	-0.092	-0.097	-0.089	-0.085	-0.065	-0.084	-0.094
Gender	-0.086	-0.071	-0.066	-0.096	-0.078	-0.083	-0.081	-0.058	-0.057	-0.056	-0.055	-0.072	-0.059	-0.058	-0.055
Education	0.135	0.153	0.152	0.140	0.133	0.119	0.121	0.150	**0.156***	**0.162***	0.154	**0.155***	0.147	0.154	**0.160***
CD	**.187****														
CDPDI		0.097													
CDIND			0.060												
CDMAS				**.243*****											
CDUAI					0.101										
CDPRA						**.219****									
CDIVR							**.201****								
Time								**.169***							
CD*Time									**.180***						
CDPDI*Time										**.196****					
CDIND*Time											**.170***				
CDMAS*Time												**.201****			
CDUAI*Time													0.093		
CDPRA*Time														**.159***	
CDIVR*Time															**.181***
R-Sq	0.056	0.030	0.025	0.077	0.031	0.068	0.060	0.048	0.052	0.057	0.049	0.060	.030	0.045	0.052
Adj.R-Sq.	0.035	0.009	0.003	0.056	0.009	0.047	0.040	0.037	0.031	0.037	0.027	0.040	0.008	0.025	0.031
F-Score	2.65	1.41	1.11	3.75	1.44	3.27	2.89	2.28	2.46	2.74	2.29	2.89	1.38	2.13	2.48
Significance	**.035**	.231	.338	**.006**	.224	**0.013**	**.024**	.063	**.047**	**.030**	.061	**.023**	.245	.079	**.046**

*p<.05; **p<.01; ***p<.001

Table 7
Total CQ
Standardized Betas

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10	Model 11	Model 12	Model 13	Model 14	Model 15
Age	0.041	0.037	0.032	-0.011	0.046	0.033	0.047	-0.021	-0.032	-0.036	-0.031	-0.02	0	-0.015	-0.034
Gender	-0.079	-0.062	-0.057	-0.084	-0.068	-0.072	-0.073	-0.046	-0.043	-0.043	-0.04	-0.064	-0.044	-0.046	-0.041
Education	0.109	0.129	0.13	0.115	0.107	0.094	0.091	0.125	0.134	0.142	0.132	0.133	0.12	0.13	0.141
CD	**.214****														
CDPDI		0.11													
CDIND			0.107												
CDMAS				**.238*****											
CDUAI					0.108										
CDPRA						**.216****									
CDIVR							**.234****								
Time								**.210****							
CD*Time									**.259*****						
CDPDI*Time										**.269*****					
CDIND*Time											**.255*****				
CDMAS*Time												**.280*****			
CDUAI*Time													**.168****		
CDPRA*Time														**.202****	
CDIVR*Time															.258*****
R-Sq	0.065	0.032	0.032	0.074	0.031	0.066	0.074	0.062	0.084	0.089	0.082	0.096	0.048	0.059	0.083
Adj.*R-Sq*.	0.044	0.011	0.01	0.053	0.01	0.045	0.053	0.041	0.063	0.068	0.062	0.076	0.026	0.038	0.063
F-Score	3.13	1.49	1.47	3.59	1.46	3.17	3.58	2.96	4.11	4.38	4.02	4.81	2.25	2.84	4.09
Significance	0.016	0.205	0.211	0.008	0.216	0.015	0.008	0.021	0.003	0.002	0.004	0.001	0.065	0.026	0.003

*p<.05; **p<.01; ***p<.001

Using the subjects' level of total cultural intelligence as the dependent variable, Table 7 indicates cultural distance (CD) to have a significant impact on total CQ (TCQ) with CDMAS, CDPRA, and CDIVR also having significant relationships with TCQ. CDPDI, CDUAI, and CDIND were not significant. Time alone and all cultural distance and time interactions were found to be significant, with CDMAS*Time having the highest significance and standardized beta of all models that were found to have significant relationships with behavioral CQ.

DISCUSSION

The objectives of this study are to explore the potential differences of the impacts of individual and aggregated cultural distance measures on each of the cultural intelligence dimensions, as well as explore the potential interaction of each individual cultural distances with the time spent in a foreign country on cultural intelligence. As discussed earlier in this paper, these objectives are seen as important due to the criticisms that the aggregated measure of cultural distance (CD), which is so widely used by researchers today, and subsequent suggestions by critics (e.g. Shenkar, 2012) that individual cultural distance dimensions may be more meaningful when applied appropriately given the dependent variable. Another potential contribution of this research is the manner in which we identified the country that would be used to calculate cultural distance, i.e. country visited in which most time was spent. The related time dimension interaction with CD was also an approach which, to our knowledge, has not been used before. Finally, the use of the CD and CD*Time interaction to predict cultural intelligence is a relationship that to our knowledge has not previously been empirically explored.

Overall, we found clear support for Shenkar's (2012) argument that it matters if you use the aggregated construct for cultural distance or the individual cultural distance dimensions, as the use of the individual CD dimensions suggested insights that were not evident when using the aggregated version of cultural distance. For example, by using aggregated cultural distance as the only measure of cultural distance as done with the overwhelming number of published studies using cultural distance, one would conclude that this construct only predicted at significant levels total cultural intelligence (TCQ), behavioral CQ, and motivational CQ. However by examining each individual component of cultural distance, we find that specifically it is the cultural distance of PDI (power distance) and cultural distance of UAI (uncertainty avoidance) that significantly predicted motivational CQ, while the other four cultural variables were insignificant. Another example of lost detail when using aggregated CD is that when using Behavioral CQ as the dependent variable (see Table 6), the aggregated form of cultural distance (CD) indicated a standardized beta of .187. However, what this approach does not tell you is that only three of the six individual dimensions are significant predictors (CDMAS with standardized beta of .243, CDIVR with .201 and CDPRA with, .219) and that the other three CD-cultural dimensions actually lowered the explanatory power of the aggregate model given their insignificant relationship.

The same observation held true for the aggregate of cultural intelligence. When total cultural intelligence was used instead of the four sub-dimensions it was found once again that potentially important relationships were not evident. For example, using total cultural intelligence (TCQ) as the dependent variable (see Table 7) only three of the six individual CD dimensions have significance (CDMAS, CDPRA, CDIVR). However, when examining Motivational CQ specifically, for example, five dimensions are significant (CDPDI, CDMAS, CDUAI, CDPRA, CDIVR) and for Cognitive CQ none of the cultural distance dimensions were significant. This

supports the need to examine each of the individual cultural intelligence dimensions rather than an aggregate construct.

The introduction of time into the models also gave some interesting insights, as its importance varied across dimensions of culture distance and cultural intelligence. While time was found to be significantly related to total cultural intelligence, only two dimensions of cultural intelligence (cognitive and behavioral) had a significant relationship upon closer examination, and the other two (metacognitive and motivational) did not. Results also varied when time was interacted with cultural distance. For example, when examining behavioral CQ as the dependent variable, CDMAS explained 7.7% of the variance (*R-sq*.), while the highest *R-square* with a time interaction was CDPDI*Time at only 5.7% (*R-sq*.). A look at metacognitive cultural intelligence, on the other hand, reflected an increase of the explanatory power of CDMAS when it was interacted with time, from 4.3% when only CDMAS was used to 6.1% when used alone. For cognitive CQ, time alone explained 8.4% of the variance, and interaction with cultural dimensions added minimal value to the model. Clearly, the use of individual dimensions instead of just the aggregate captured key relationships with regards to time and cultural distance and time interactions.

An interesting finding was the significant non-linear inverted "U" relationships between meta-cognitive and cognitive cultural intelligence and some measures of cultural distance suggesting that the quadratic relationship has a higher ability to explain the scores in these CQ dimensions than does a linear relationship. Such a finding may suggest that the ability of the subject to process and organize cultural knowledge may be greater when the differences between the native country and the foreign country is of a moderate distance, as opposed to having a too little or too great a cultural distance between countries. If confirmed by future research this may be of critical importance in the development of cognitive cultural intelligence resulting in the need to explore this area in more detail and with different sample populations.

One of the limitations of this study is that it was conducted using a sample from only one university. The control variable, education, was significant in the behavioral dimension of cultural intelligence; the results could reflect teaching of cultural intelligence and thus the need to examine a number of larger universities with a variety of educational approaches and emphases on the development of cultural intelligence. Age and gender controls were not significant, however a larger sample which incorporated a much greater range in age may give us a more accurate insight into these controls. A further limitation is that this study only examined the foreign country in which the most time was spent, and does not include information about other places visited. Also, while the sample size is reasonable given the number of variables being examined in any one model (Hair, Black, Anderson, & Tatham, 2006) and validity checks confirm confidence in the results, a larger sample size may well have benefits. Finally, the results explain only a small part of the variance (with the highest Adj. R-sq. being 0.094, the impact of IVR distance on motivational CQ), suggesting the obvious need to identify and include more explanatory variables in the models.

This study has indicated that while aggregates may be useful for getting a basic picture of relationships, important relationships between individual dimensions are overlooked if not examined. Time spent abroad is also an important factor to consider in the development of cultural intelligence. Future research should develop a more complete model for predicting cultural intelligence. Other independent variables that should be included are time, as well as additional measures of "distance" between countries such as economic, geographic, and language factors, among others. Along with appropriate distance constructs, perhaps some type of weighting should

be developed for each cultural distance dimension construct used. Future studies should also include a larger sample from a variety of organizations, and consider a more comprehensive travel history. For researchers, this study gives direction towards building a full model for predicting cultural intelligence that includes cultural differences. These models may later be useful to businesses for the selection and development of international managers, who not only step into other countries, but also the shoes of those they do business with.

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ISSUING LEVEL II VERSUS LEVEL III ADRS: DO COUNTRY CHARACTERISTICS MATTER?

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ABSTRACT

We explore whether country characteristics influence a firm's decision to internationalize for increased visibility or to raise funds-that is, what influences the decision to issue Level II versus Level III American Depositary Receipts (ADRs). We apply panel probit and tobit models to a panel of 20 countries that spans 368 exchange-listed ADR issues during 1996-2010. Our results indicate that the domestic country's macroeconomic environment does play a role in firm's choice between Level II and Level III ADRs. Specifically, lower inflation and higher credit available to the private sector are associated with increases in Level II ADR issuance while improvements in corporate governance and stock market development are associated with issuance of Level III ADRs.

INTRODUCTION

American Depositary Receipts (ADRs) are securities traded in the United States that represent ownership in a foreign company. For U.S. investors, ADRs provide convenience in international investment because they offer familiar trade, clearance and settlement procedures. Perhaps more importantly, an ADR investment offers U.S. investors international diversification benefits. Furthermore, ADRs benefit their respective issuers because they offer an expanded shareholder base, higher liquidity, higher global visibility, and a lower cost of capital (Karolyi, 1998; 2006).

When cross-listing, firms choose what type of ADR to issue: Level I, Level II, Level III, or private placements. [1] Level I ADRs are traded in over-the-counter exchanges. Private placements of ADRs to institutional investors can be issued under Rule144A in which shares are placed amongst qualified institutional buyers (QIBs). Neither requires registration with the Securities and Exchange Commission (SEC). Of interest to this study are ADR issues of Levels II and III because these issues are traded on the New York Stock Exchange (NYSE) and NASDAQ. Consequently, issuers are obligated to meet SEC disclosure requirements and conform to U.S. Generally Accepted Accounting Principles (GAAP) which enhances the legal protection of the firm's investors and thus increases the value of the firm (Coffee, 2002; Doidge, Karolyi, & Stulz, 2004). While both are listed on exchanges, ADRs of Levels II and III differ significantly in purpose. Level II ADRs are issued with the intent to meet U.S. investor demand for foreign equity while Level III ADRs are issued with the intent to raise capital in the U.S. market.

Boubakri, Cosset and Samet (2010) document that the choice between Level II and III ADRs is influenced by several characteristics including the issuing firm's country of origin. Their analysis of country level characteristics focuses primarily on investor protection and the quality of accounting standards. We aim to contribute to the existing literature by asking: Does

the domestic macroeconomic environment influence a firm's choice between Level II and Level III ADRs?

To examine this question, we apply probit and tobit models to a panel dataset consisting of 20 countries which span 368 exchange listed ADR issues during 1996-2010. Our results suggest that macroeconomic characteristics of the home country do affect firms' choice of cross-listing mechanism in the host country. Specifically firms from countries with stable macroeconomic environments and greater credit available to the private sector are more likely to issue Level II ADRs. Firms in these countries are less likely to be credit constrained in the domestic market and seek primarily to increase their shareholder base with ADR issuance. Our results also indicate that improvements in the home market's regulatory quality and higher liquidity in the domestic stock market are consistent with issuance of Level III ADRs. This is consistent with evidence in Claessens and Schmukler (2006) who argue that countries with better developed stock markets have greater internationalization and more capital raising issues abroad.

MEASURES EMPLOYED

Characteristics of the Country of Origin

As reviewed by Dodd (2013), a vast amount of literature examines *why* firms internationalize, but little attention has been paid to *how* firms internationalize. A notable exception is Boubakri et al. (2010) which documents that large firms, firms with high pre-tax income, firms with high growth opportunities, and privatized firms tend to issue more Level III ADRs. However, they examine little in terms of the country characteristics that impact the ADR choice; they find that the regulatory environment as firms from weak investor protection environments tend to issue more Level III ADRs.

We focus on the macroeconomic environment because more developed countries typically have more developed financial markets (Demirgüç-Kunt & Levine, 1996) and countries with better economic fundamentals have more firms that internationalize and that raise capital internationally (Claessens, Klingebiel & Schmukler, 2006; Claessens & Schmukler, 2007). In addition, less developed countries are more likely characterized by economic or financial problems such as high inflation. Inflation can have a detrimental effect on financial development because it decreases real returns on all assets resulting in worsening trading activity in equity markets (Huybens & Smith, 1999; Boyd, Levine, & Smith, 2001). Therefore, we conjecture that the domestic environment can impact not only the decision to cross-list but also the choice of ADR. To measure macroeconomic conditions in the home country we include two variables—GDP per capita and the annual inflation rate based on an index of consumer prices.

The superior financial development of rich countries may be partially explained by better legal environments and law enforcement (La Porta, Lopez-de-Silanes, Schleifer, & Vishny, 1997). The bonding hypothesis suggests that firms will cross-list in order to "bond" themselves to the tougher legal, regulatory and capital market institutions of the host country. As discussed by Karolyi (2012), the firm benefits from a foreign listing because global investors are more willing to invest in a firm that offers a credible commitment to stringent oversight of the firm's activities thus leading to a revaluation of the firm's shares. Thus, the regulatory environment can also impact the ADR choice. To measure investor protection mechanisms, we obtain measures of *Rule of Law* which "reflects perceptions of the extent to which agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, property rights, the police, and the courts." In our model we include the difference

in governance between the ADR's home and host markets such that increases in this measure reflect improvements in governance of the home country relative to the United States.

A major criticism of the bonding hypothesis is that SEC regulation is not as effective as bonding proponents suggest and that corporate governance is secondary to the main reasons for cross-listing which are raising capital and increasing the shareholder base (Licht, 2003). If this is the case, we expect the motive to be stronger for firms that are financially constrained in their domestic markets. Existing evidence indicates that the ability to raise funds is a benefit that accrues primarily to firms from emerging markets (Lins, Strickland, & Zenner, 2005). To gauge financial constraints, we include a measure of credit available to the private sector (*Private Sector Credit*) and measures of stock market development—size and liquidity. To measure *Market Size*, we employ the monthly market capitalization ratio divided by Gross Domestic Product (GDP). We complement size with *Market Liquidity*, which is the total monthly value of shares traded in the stock market scaled by market capitalization. This provides additional information about a market's development because values will be low for markets that have a large number of listed but inactive shares.

ADR Issuance

We measure the relative issuance of Level II ADRs versus Level III ADRs in two ways. First, we create a binary variable *NetIssuer2* that takes on the value of one if the firm is a net issuer of Level II ADRs and zero otherwise. A country is a net issuer of Level II ADRs if the cumulative number of Level II ADR issues exceeds the cumulative count of Level III issues in that year. Suppose in year 1 Country A issues one Level II but no Level III ADR, then it would be considered a net issuer of Level II ADRs in year 1. In year 2, Country A issues 1 ADR of each Levels II and III ADRs. Country A is classified as a net issuer of Level II ADRs also in year 2 because the total number of Level II issues exceeds the number of Level III issues.
A limitation of this approach is that year-to-year variations in the number of Level II (or Level III) issues are ignored. To contend with this issue, we employ a second measure, *Proportion II*, which captures the number of Level II ADRs as a fraction of all exchange-listed ADR programs in the country. By construction, *Proportion II* is bounded by zero and one.

SAMPLE AND METHODOLOGY

The sample includes exchange-listed ADRs trading during the period 1996-2010 available from the ADR databases of: JP Morgan Chase, Bank of New York, Citibank, and Deutsche Bank. In cases where these databases offered incomplete/conflicting information, data were collected from SEC filings, the New York Stock Exchange and the NASDAQ. We include active and terminated ADRs to avoid survivorship bias and include only countries with a minimum of three ADRs.

Table 1 shows the distribution of ADRs in our 20 country panel. Brazil, China, and the UK dominate the sample with 43, 119, and 58 issues respectively. Table 1 also shows significant variation across mean values of *Proportion II* (defined in Section II). Some countries
only issue one type of ADR: only Level II for Australia and South Africa and only Level III for Ireland and Russia such that *Proportion II* takes on the value of 1 for the former and 0 for the latter throughout the sample period. In the remaining countries, the average of *Proportion II* ranges from 0.02 in Spain to 0.98 in Germany.

Table 1
ADR Issuance by Level and Country

	Net Level II Issuers				Net Level III Issuers		
	II	III	Average Proportion II		II	III	Average Proportion II
Australia	6	0	1	Argentina	2	8	0.22
Brazil	29	14	0.71	China	1	118	0
Chile	5	2	0.66	France	5	12	0.22
Germany	5	1	0.98	Hong Kong	1	7	0.13
Japan	8	6	0.61	India	3	13	0.17
South Korea	6	4	0.64	Ireland	0	6	0
Mexico	8	7	0.53	Israel	1	3	0.35
Netherlands	4	3	0.51	Russia	0	6	0
S. Africa	3	0	1	Spain	1	5	0.02
UK	40	18	0.79	Switzerland	4	3	0.57

Notes: Data collected by authors on exchange-listed ADRs trading during the period 1996-2010. Only countries with a minimum of three exchange-listed ADRs are included.

Table 2 shows descriptive statistics of the domestic country variables. There is a wide range of per capita income across our sample—in 1996, $410 in India but $44,123 in Switzerland. Russia had the most inflation in across most years, but overall, inflation averaged approximately 5%. On average, *Regulatory Quality* was negative such that countries tend to score lower than the U.S. on the quality and enforcement of contracts and property rights. The statistics also indicate a wide range in the average *Private Sector Credit* and the stock market development variables, *Market Size* and *Market Liquidity*. We found remarkably high values of *Market Liquidity* in 2008 (not shown), likely reflecting the selloffs associated with the peak of the global financial crisis.

Table 2
Country of Origin Characteristics

	Year	Mean	Std. Dev.	Minimum	Maximum
GDP per capita	1996	16,451.88	12,765.99	410.82	44,123.03
	2010	27,654.37	19,110.08	1,419.11	70,370.02
Inflation	1996	8.47	12.06	0.13	47.74
	2010	3.33	3.32	-0.95	11.99
Regulatory Quality	1996	0.92	0.74	-0.44	2.02
	2010	0.91	0.85	-0.76	1.91
Private Sector Credit	1996	81.62	51.31	8.33	202.43
	2010	123.83	65.27	14.62	215.06
Market Size	1996	68.58	67.37	9.50	281.36
	2010	112.96	98.29	17.33	472.09
Market Liquidity	1996	68.59	70.99	10.42	328.62
	2010	84.34	46.33	4.58	168.94

Notes: Annual data obtained from the World Bank.

Our empirical approach involves estimating a probit model applied to panel data in the following form:

$$y_{i,t}^{*} = X_{i,t-1}\beta + \epsilon_{i,t} \quad (1)$$

$$y_{i,t} = 1\left(y_{i,t}^{*} > 0\right) t = 1, \dots, T; i = 1, \dots, N$$

where the vector $y_{i,t}^{*}$ is related to whether a country is a net issuer of Level II ADRs ($y_{i,t}$); The vector $X_{i,t-1}$ includes macroeconomic characteristics including *GDP per capita*, *Inflation*, *Regulatory Quality*, *Private Sector Credit*, *Market Size*, and *Market Liquidity* as previously described. The independent variables are lagged one year to account for the fact that the decision to cross-list is made prior to the actual cross-listing. Because firms must first ensure that they meet U.S. listing requirements which can be costly, we believe that the lagged information is more likely to influence what ADR type is issued than coincidental data. Given significant cross-country differences across several variables, we apply logs to transform all variables.

An important limitation of the approach above is that the dependent variable captures only two states—either a country is a net issuer of Level II ADRs or a net issuer of Level III ADRs. To capture variations in the number of Level II relative to the number of Level III ADRs, we employ *Proportion II* which is bounded by [0,1] by construction. To handle the bounds of the dependent variable, we employ a tobit model with random effects that takes on the following form:

$$y_{i,t} = X_{i,t-1}\beta + \epsilon_{i,t} \quad (2)$$

where $y_{i,t}$ represents *Proportion II* and $X_{i,t-1}$ contains the lagged economic data.

RESULTS

The results from estimating Equation (1) are displayed in Panel A of Table 3. Country characteristics are related to the choice of ADRs. Column (1) shows that GDP per capita is positive and statistically significant indicating that more developed countries tend to be net issuers of Level II and not Level III ADRs. However, the result becomes statistically insignificant when we control for other country characteristics. The negative coefficient on inflation indicates that countries with higher inflation tend to issue more Level III ADRs than Level II ADRs. Since high inflation is typically a problem of emerging and not developed countries, these results are consistent with the GDP results—more developed countries tend to be issuers of Level II and not Level III ADRs. Columns (3) through (5) show that the result is consistent across different specifications. Surprisingly, *Regulatory Quality* is not statistically significant at any conventional level. However, the results support the propositions of Licht (2003) in that *Private Sector Credit* is positive and statistically significant. This suggests that countries with greater access to credit are more likely to be issuers of Level II and not Level III ADRs. This result is intuitively appealing because it suggests that firms internationalize through a Level II issue when they are not financially constrained. The relationship holds when we consider the country's stock market development. Table 3 also shows a negative and statistically relationship between *Market Size* and the likelihood of being a net issuer of Level II ADRs. This result is consistent with the findings of Claessens et al. (2006) which suggest that firms with

Table 3

Panel A: Panel Probit Results of Country Characteristics on Level II ADR Issuance

	(1)	(2)	(3)	(4)	(5)
GDP per capita	0.092**	0.071	0.094*	0.033	0.060
	(0.042)	(0.044)	(0.048)	(0.047)	(0.049)
Inflation		-0.820*	-0.825**	-1.098***	-1.120***
		(0.428)	(0.419)	(0.385)	(0.383)
Regulatory Quality			-0.101	-0.099	-0.107
			(0.084)	(0.074)	(0.074)
Private Sector Credit				0.150*	0.167**
				(0.079)	(0.079)
Market Size					-0.101***
					(0.035)
Market Liquidity					0.011
					(0.033)
Constant	-0.803*	-0.576	-0.847	-0.925*	-0.879
	(0.483)	(0.503)	(0.558)	(0.537)	(0.537)
Panel B: Panel Tobit Results on Level II ADR Issuance					
GDP per capita	0.012	-0.004	0.024	-0.016	0.003
	(0.025)	(0.026)	(0.028)	(0.031)	(0.031)
Inflation		-0.679***	-0.777***	-0.914***	-0.930***
		(0.260)	(0.260)	(0.255)	(0.251)
Regulatory Quality			-0.091**	-0.096**	-0.077**
			(0.039)	(0.038)	(0.038)
Private Sector Credit				0.126***	0.116**
				(0.048)	(0.048)
Market Size					-0.007
					(0.022)
Market Liquidity					-0.053***
					(0.018)
Constant	0.356	0.534**	0.214	0.018	0.150
	(0.252)	(0.260)	(0.293)	(0.298)	(0.297)

Notes: Annual data ranging from 1996-2010. Panel A: Panel probit regression of Net Issuer 2 (a binary variable that takes on the value of 1 if the country is a net issuer of Level II ADRs) on country level characteristics including: *GDP per capita* (in current U.S. dollars), *Inflation* (based on consumer prices), *Regulatory Quality* (the difference between a home country and U.S. index, *Credit to Private Sector* (scaled by GDP), *Market Size* (market capitalization) and *Market Liquidity* (turnover). All variables except *Regulatory Quality* are transformed via logs due to significant cross-country differences. Panel B: Panel tobit regression of Proportion II (a variable that measures the number of Level II ADR issues relative to all exchange-listed issues) on country level characteristics. Standard errors are shown in parentheses. *, **, *** represent statistical significance at the 10%, 5%, and 1% respectively.

better developed stock markets tend to internationalize more and raise more capital internationally. However, since the *Market Size* variable is negative and statistically significant but the *Market Liquidity* variable is not statistically significant at any conventional level, this result may also arise from the fact that market capitalization will be high in a market that has many listed shares even if these shares are inactively traded—a problem typically associated with emerging markets, which as stated above, tend to issue more Level III ADRs.

Panel B of Table 3 presents the results from estimating Equation (2). Consistent with our previous results, GDP per capita is not statistically significant at any conventional level but inflation is negative and statistically significant across all specifications. Therefore, increases in inflation are consistent with a declining proportion of Level II ADRs. This would suggest that poor macroeconomic conditions are consistent with Level III ADR issuance. In addition, and unlike the probit results, the corporate governance variable *Regulatory Quality* is statistically significant at the 5% level across all specifications. The coefficient is negative which indicates

that as corporate governance in the home market improves relative to the host (U.S.) market, *Proportion II* decreases—possibly driven by an increase in Level III ADRs. ADR issuance can act as a market liberalization event such that firms that cross-list attract global attention and bring increased visibility, credibility and enhanced liquidity to other local market stocks. Consequently, local financial intermediaries feel competitive pressure from global markets and begin improving the efficiency of trading systems, through greater transparency and more stringent disclosure requirements. While controversy exists about the impact of internationalization on domestic stock market development, some evidence suggests that ADR issuance does benefit the domestic market (Halling, Pagano, Randl & Zechner (2008) for developed markets and Hales & Mollick, 2014 for Latin America). If this mechanism is operative, corporate governance mechanisms improve. Despite improvements, some countries will still have poor governance environments and firms from these countries still stand to gain from bonding. Therefore, the capital-constrained Level III issuers will be willing to give up private managerial benefits to bond to the U.S. environment and receive necessary funding. Furthermore, as before *Private Sector Credit* is still positive and statistically significant suggesting that as credit availability increases, so does Level II ADR issuance as firms have a lesser need to tap international financial markets. Finally, the results indicate that stock market development is related to ADR issuance. Specifically, higher levels of liquidity in the stock market, as measured by *Market Liquidity*, are associated with lower levels of *Proportion II*. This is consistent with the findings of Claessens et al. (2006) that greater stock market development is associated with subsequent higher internationalization and more capital raised abroad.

CONCLUSION

This paper examines whether conditions in the home country influence firms' choice of ADR issue in the host country. Specifically, this paper focuses on the choice between Level II and Level III ADRs since both are exchange listed which requires SEC registration and adherence to U.S. GAAP. We employ probit and tobit models applied to panel data to explore the relationship between domestic country conditions and the choice of ADR. Our results indicate that the home country characteristics are associated with the ADR choice; specifically, countries with better macroeconomic environments—lower inflation and higher domestic credit available to the private sector—tend to issue more Level II than Level III ADRs. In addition, the results indicate that improvements in corporate governance mechanisms and stock market development are consistent with increases in Level III issuance relative to Level II. Since Level III issuance raises new capital, an important question left for further research is, does Level III ADR issuance foster economic growth?

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IMPACT OF CAREER CHANGE ON EMPLOYEE-ORGANIZATION RELATIONSHIP: A CASE OF JAPANESE COMPANY

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ABSTRACT

In this paper, we examine the evolving nature of employee-organization relationship (EOR) in a Japanese company from the perspective of psychological contracts and organizational commitment, using empirical methods on data from 3,789 employees of a large Japanese pharmaceutical company.

The results show that how affective commitment, continuance commitment, and psychological contracts change differ. On the one hand, psychological contracts and continuance commitment can change both incrementally and discontinuously.

On the other hand, employees' affective commitment can change only when they experience discontinuous career change (vertical movement, functional movement, and radial horizontal movement). Implications for Japanese organizations managing EOR and perspectives on future research are discussed.

INTRODUCTION

Recently, employment relationship has gained popularity in Japan, in large part due to changes in the employee-organization relationships (EOR) in Japanese organizations. Confronted with the low productivity of white-collar employees and Japan's low economic growth, many Japanese organizations were forced to examine their own EOR. According to a 2001 survey conducted by the Japanese Ministry of Health, Labour and Welfare, 62.3% of organizations have adopted pay-for-performance schemes for their middle and senior managers. Further, a survey by the Institute of Labor Administration revealed that the proportion of organizations that have introduced demotion systems has also been increasing. The externalization of employment has also been increasing at a considerable rate in Japan, as it has in other industrialized nations. According to the Japanese Statistics Bureau, the ratio of part-time, temporary, and other limited-contract employees has been on the rise. Japanese organizations have begun to sort employees into various categories with different levels of employment protection.

Although the abovementioned changes have been occurring widely, there are strong appeals for long-term employment, which constitutes Japanese management (Abegglen, 1958). The fact that long-term employment still enjoys long-standing importance in Japanese organizations has been clarified by many theoretical and empirical studies (Clegg and Kono 2002; Jacoby 2005).

The EOR theories include both macro perspectives such as transactional cost theory and micro perspectives such as psychological contract (PC) and OC (Coyle-Shapiro and Shore 2007).

Research on long-term employment, however, has mainly been conducted from the perspective of economic theory and human resource management (i.e., macro perspectives). Although several views exist, there is consensus among theorists that long-term employment enables organizations and employees to make a relation-specific investment with low risk. On the other hand, there are few researches concerning long-term employment from the micro perspective. Then, the purpose of this paper is to examine the evolving nature of EOR from the perspective of OC and PC. In more detail, this paper examines the effects of several career change variables such as tenure, vertical, functional, and horizontal career change in organization on OC and PC.

REVIEW

Economic rationality of long-term employment

The most researched topic in Japanese EOR is the economic rationality of long-term employment. The assumptions of transaction cost theory (TCT) and agency theory (AT) lie at the heart of this line of research. Because it is difficult for contract parties in the market to monitor each other, this raises the possibility of opportunistic actions (Williamson 1975). In order to reduce such actions, TCT argues that the each party's incentives need to be aligned with the other party's. Further, this can be accomplished by developing an employment contract (Williamson 1975). Long-term employment enables organizations to avoid losses in their investment toward human resources and to have a stable and predictable stock of capabilities (Pfeffer and Baron 1988). For employees, long-term employment reduces their risk of unemployment and enables them to invest more in firm-specific abilities.

Although such findings have yielded important insights, they have overlooked the fact that EOR could change over time as employees develop their career and they and organization improve their knowledge of each other. As employees' careers develop, their understanding of what their organizations require of them and their benefits as employees changes (Schein 1978). Thus, EOR can change with time.

Organizational commitment and psychological contract

This paper investigates the evolving nature of EOR from the perspective of OC and PC. As micro concepts concerning EOR, both concepts have gained significant popularity among researchers and practitioners. However, although both concepts are closely related to each other, they are conceptually and empirically different (Millward and Hopkins 1998; Rousseau 1989).

Meyer, Allen, and Smith (1993) defined OC as "a psychological state that (a) characterizes the employee's relationship with the organization and (b) has implications for the decision to continue or discontinue membership in the organization" (p. 539). OC describes an individual's belief about the "strength" of the EOR. Although OC research has been conducted in various topics, there is consensus among theorists that it impacts the employee's intention to remain a member of the organization.

Rousseau (1989) defined PC as "an individual belief regarding the terms and conditions of a reciprocal exchange agreement between the focal person and another party" (p. 123). The four key concepts individual belief, agreement, terms, and obligation that characterize Rousseau's concept of a PC are delineated in this definition. Rousseau (1989) did not view PCs as one involving the perspectives of two interconnected parties. Instead, she posited it as an individual-level, subjective phenomenon. This holds true irrespective of whether or not the contract is legal/written or unwritten. All types of promises are deemed PCs. Consistent with this view, Rousseau (1989) suggested that "agreement exists in the eye of the beholder" (p. 123). Further, although agreements are not general concepts such as OC, they are comprised of concrete contents (e.g., high pay, training). Finally, she emphasized the binding power of PCs, suggesting that parties are bound by a set of reciprocal obligations when agreements are signed.

In short, OC focuses on the "strength" of EOR and PC focuses on the "contents" of EOR.

Impact of career changes on organizational commitment and psychological contracts

Incremental Career Change Effect

In this paper, we examine the career change effects on EOR. For this purpose, we begin with distinguishing several types of career changes. First, we distinguish two types of effects incremental change effect and discontinuous change effect (George and Jones 2000). For detecting incremental change effect, we incorporated organizational tenure. Increase in organizational tenure occurs only with the passage of time (i.e., it occurs in an incremental manner).

In many studies, OC was conceptualized through the use of a multidimensional perspective of commitment (Bentein et al. 2005). As many researchers suggested, OC consists of at least two distinctive dimensions affective and continuance commitment. Affective commitment represents the idea that one's commitment to the organization is due to his (her) emotional attachment to and identification with the organization. Continuance commitment, on the other hand, represents the perceived costs of not continuing with employment. It develops as a function of the magnitude of investments employees make in an organization.

Several studies revealed that continuance commitment and affective commitment change differently throughout employee's career. Results of several studies concerning continuance commitment are consistent. Many researchers suggest that continuance commitment increases with tenure (Ritzer and Trice, 1969; Hrebiniak and Alutto 1972; Alutto, Hrebiniak, and Alonso, 1973; Stevens et al. 1991). Findings obtained in these studies suggest that tenure are one of the most efficient and direct predictors of continuance commitment. Then,

H1a Tenure will positively relate to continuous commitment.

For affective commitment, however, the results of several studies are inconsistent. Although some researchers suggest that affective commitment decreases with tenure and career stages (Beck and Wilson 2000; Bentein et al. 2005; Lance et al. 2000), other researchers suggested that affective commitment increases with tenure (Allen and Meyer 1993; Gregersen 1993). In the Japanese context, Kanai, Suzuki, and Matsuoka (1998) examined the change in employees' affective commitment in the initial few years in a large retailing organization. They found that affective commitment increases only discontinuously with several career event such as promotion and functional change. Although we could not find consistent pattern about affective commitment changes across studies, many researchers agree that among several variables the strongest and most consistent correlations with affective commitment is positive work experiences (Mathieu and Zajac, 1990). This may implies that the way affective commitment change is discontinuous one rather than incremental.

H 1b Tenure will not relate to affective commitment

PCs between employees and employers will change incrementally with tenure. This can be better understood by considering it on a schema of an EOR (Rousseau, 1995). As Rousseau (2001) suggested, "psychological contracts themselves can form schema" (p. 515). A schema is a cognitive organization or mental model of conceptually related elements. We gradually develop a schema from past experience, and it subsequently guides the manner in which information is processed. And once a schema is formed, we tend to maintain it and new information tends to be interpreted in light of the schema (Rousseau, 2001). For example, gathering information about organization and their jobs, employees with initial few years try to establish and clarify their identity within organization (Schein, 1978). They may use several types of information to fine-tune their understanding of PC regarding what they can expect and what they need to contribute. Within few years, PC can evolve from discrete perceptions of many obligations to elaborately organized schemas (Schein, 1978). Employees with long tenure will develop stable and fine-tuned PC.

And once a stable PC is formed, employees gradually do not actively seek information and are unconcerned about EOR (Ashford, 1986). This is because employees' awareness of luck of change. As organization socialization theorist suggest, for employees with long tenure it is likely that everything will eventually seem routine and habitual, which result in a sense of lack of change in everyday work (Schein, 1978). Such an awareness of "career routine" (Hall, 1988) give rise to the employees' no longer thinking about employer and their own obligations. Accordingly,

H 2 Tenure will negatively relate to employees' perceptions of psychological contracts.

Discontinuous Career Change Effect

For detecting discontinuous change effects (George and Jones, 2000), we used three types of career movement according to Schein (1978) - (1) vertical movements, (2) functional movements, and (3) radial or horizontal movements. Vertical movement means advancing people on vertical or upward ladders. In many Japanese organizations, career structures in an

organization traditionally focused on advancing people on vertical ladders, in line with the belief that a successful career involves successive movement up the organizational career ladder. Functional movement involves a change in function (e.g., sales to research and development [R&D]) but not necessarily a change in rank. Finally, radial or horizontal movement means change in degree of inclusion in the organization. For example, an employee with knowledge of or access to classified information and with high responsibility is highly included in the organization.

As discussed above, continuance commitment can develop as a result of increasing in the cost of leaving the organization. As many researchers suggest, continuous commitment develop as a function of investments that an employee makes in organization such as tenure and age. This implies that the way continuance commitment change is mainly incremental rather than discontinuous. Thus,

H3a. Vertical movements will not relate to continuance commitment
H3b. Functional movements will not relate to continuance commitment.
H3c. Radical / horizontal movements will not relate to continuance commitment.

As mentioned above, among several variables the strongest and most consistent correlations with affective commitment across studies is work experiences (Mathieu and Zajac, 1990). Specially, across many different samples, affective commitment has been positively related with individual's role in focal organization. For example, Kanai et al. (1998) suggested that affective commitment increases only discontinuously change with several career event such as promotion and functional change. In line with this, positive career movements discussed above may have positive impact on affective commitment.

H4a. Vertical movements will positively relate to affective commitment.
H4b. Functional movements will positively relate to affective commitment.
H4c. Radical / horizontal movements will positively relate to affective commitment.

Finally, PCs between employees and employers will change discontinuously. Although employees gradually do not actively seek information with time passes, active information gathering will be triggered when an individual feel the need for it (Ashford, 1986; Rousseau, 1995). As many researchers said, several role changes in organization involve re-socialization into the new role and setting (Ashford, 1986). For, example, becoming a manager forces an employee to rethink their identity within organization (Schein, 1978). Also, changing their function and having more and more high responsibility may involve re-socialization process. Accordingly,

H5a. Vertical movements has positively related to employees' perceptions of psychological contracts.
H5b. Functional movements has positively related to employees' perceptions of psychological contracts
H5c. Radical / horizontal movements has positively related to employees' perceptions of psychological contracts

METHOD

Sample

The population sampled for this study consisted of employees in a large Japanese pharmaceutical company. We conducted a web-based survey of all employees in this company in July 2008. A total of 3,789 employees responded to the questionnaire. The average age of the participants at the time of the study was 39.81 years (S.D. = 8.716), their average tenure (length of employment with current employer) was 12.46 (S.D. = 9.14), and the percentage of women was 17 percent. Because our data represent only a cross-sectional view of what has been presented as longitudinal phenomena, we must be cautious when interpreting the results of this study.

Measures

Psychological contracts Hattori (2010) developed Japanese version of PC scale consisting of 39 items (24 items related to an organization's obligations and 15 items pertaining to an employee's obligations). In this scale, with regard to the employer's obligations, participants were asked to indicate the extent to which their employer was obligated to provide them with a set of items. With regard to the employee's obligations, participants were asked to indicate the extent to which they were obligated to provide a set of items to an employer. Participants were provided with a five-point Likert-type scale, ranging from "not at all obligated" to "highly obligated" for each item.

An exploratory factor analysis of the items was conducted to reduce the item pool and to assess the factor structure in this company. First, a factor analysis (the principal factor method with promax rotation) for 24 items related to an organization's obligations was conducted. Items with loading less than .40 were deleted. Variables with eigenvalues less than one were not included in the factor structure. When items were reduced, there were no longer any cross-loadings. Two factors emerged from the items (see Table 1). The first factor was comprised of items such as "good career prospects," "support for personal problems," and "good work atmosphere." These patterns were consistent with the notion that employment can be characterized by relational issues involving the creation and maintenance of a relationship between an employee and employer; in other words, a "relational contract" (Rousseau 1995). The second factor was comprised of items such as "performance-based pay," and "high pay." Because these items reflect high extrinsic inducements (Rousseau 1995), they were termed "transactional contract." These patterns were consistent with the notion that distinct types of employment relationship can be discerned from the patterns of employee and employer obligations (Robinson et al. 1994; Millward and Hopkins 1998).

Then, a factor analysis (the principal factor method with promax rotation) for 15 items related to an employee's obligations was conducted. Items with loading less than .40 were deleted. Variables with eigenvalues less than one were not included in the factor structure. When items were reduced, there were no longer any cross-loadings. Three factors emerged from the items (see Table 2).

Table 1
Result of Factor Analysis for Organization's Obligations

Items	Factors	
	Relational contract	Transactional contract
Good career prospects	0.87	−0.05
Participation in career-related decision making	0.85	−0.02
Support with personal problems	0.81	0.01
Development of marketable skills	0.80	−0.02
Job assignments based on my experience	0.74	0.10
Good work atmosphere	0.70	0.12
Benefits for my family	0.69	0.07
Participative decision making	0.66	0.15
Adequate job support	0.65	0.23
Adequate opportunity for on-the-job training (OJT)	0.60	0.29
Frequency of feedback	0.59	0.14
Flexibility in working hours	0.58	0.05
Interesting work	0.55	0.30
Provision of adequate training	0.50	0.31
Significant task for society	0.50	0.33
Adequate job status	0.48	0.23
Adequate allocation	−0.03	0.89
Adequate difficulty of work	−0.02	0.85
Performance-based pay	−0.03	0.83
Meaningful tasks for me	0.19	0.68
High pay	0.18	0.63
Career development	0.28	0.47
Eigenvalue	12.36	11.10

Correlation among factors was 0.80.

The first factor was comprised of items such as "voluntary refrain from pro-competitor behavior," "following instructions," and "minimum length of employment." Therefore, this factor was termed "loyalty." The second factor was comprised of items concerning deviation from formally assigned roles. To put it concretely, it included items such as "behavior that is not recognized by the reward system," "willingness to go beyond the job description," and performance of a "nonrequested task on the job." Therefore, this factor was termed "nonreward work." The third factor was comprised of items such as "association with clients outside work," "acceptance of change in occupations," and "association with supervisor outside work." All of these items were related to the maintenance of relationships inside and outside the organization. Therefore, this factor was termed "maintenance of relationship.'' Results of the factor analysis were contrary to the findings of previous studies (Millward and Hopkins 1998.) Employees' obligations in Japanese organizations did not emerge as a simple dichotomy (transactional/relational), but rather as a combination of such contracts.

Table 2
Results of Factor Analysis for Employees' Obligations

Items	Factors		
	Loyalty	Nonreward work	Maintenance of relationship
Loyal to management by objective sheet	0.79	−0.06	0.02
Voluntary refrain from pro-competitor behavior	0.74	0.08	−0.21
Voluntary acquisition of skill	0.66	0.10	0.01
Following instructions	0.64	0.03	0.03
Minimum length of employment	0.47	0.04	0.12
Behavior that is not recognized by the reward system	0.01	0.92	−0.05
Willingness to go beyond the job description	0.11	0.69	−0.02
Nonrequired task on the job	0.07	0.59	0.13
Association with clients outside work	−0.13	0.08	0.62
Acceptance of change in occupations	−0.12	0.01	0.56
Acceptance of transfers	0.22	−0.15	0.55
Association with superiors outside work	0.15	0.16	0.45
Eigenvalue	3.91	3.68	2.56

Correlation between Loyalty and Nonreward work was 0.71, Loyalty and Maintenance of relationship was 0.51, and Nonreward work and Maintenance of relationship was 0.54/.

Organizational commitment. Affective commitment and continuance commitment were measured using the measure designed by Allen and Meyer (1990) and translated into Japanese by Suzuki (2002). The affective commitment scale consisted of six items and yielded a coefficient alpha of .90. The continuance commitment scale consisted of four items and yielded a coefficient alpha of .63.

Tenure. For the incremental change of EOR, we used organizational tenure and asked each participant to state how many years he (she) had been working for the organization.

Vertical movement. We also incorporated three types of career development variables. First are vertical movements. Organizational records were used to code the respondents' ranks into binary codes. For vertical movement, an employee with promotion in past three years is coded as one, and employees with no promotion as zero.

Functional movement. Functional movement also facilitates career development (Schein 1978). To determine the employee's functional movement, we directly asked the respondents "How often have you experienced functional change in this organization until today?" Participants were provided with a five-point Likert-type scale, ranging from "not at all" to "very frequently."

Radial or horizontal movement. Radial or horizontal movement in an organization means change in the degree of inclusion in the organization. For this, we used two items: "In past three years, I moved to a position that influences an important decision at work" and "In past three years, I moved to a position that can access important information in this organization." We calculated the mean value of these items.

Other control variables. Several variables were controlled to rule out alternative explanations. For all analyses, employees' functions were controlled because they may strongly influence the employees' perceptions of the obligations. Organizational records on the job were used to code the respondents' functions into binary codes. For eight variables, we controlled two functions the medical representative (MR) section (MR_d) and the R&D section (R&D_d). In the pharmaceutical industry, the mobility of MR and R&D staff is relatively high because of their portable skills. Thus, instead of a linear progression of upward moves or predictable regular career patterns, these employees prefer a more flexible, mobile career course, and they actually move from one employer to another. It is possible that MR and R&D staff think of employment quite differently. Then, we also controlled job-change experience (Midway_d), and asked respondents to indicate whether they have changed employers. Employees with job-change experience are coded as one, and those without job-change experience are coded as zero.

RESULTS

Table 3 presents the descriptive statistics and inter-correlations for all measures in the equation. The simple correlations' results show that there is a positive relationship between tenure and any PC. Similarly, there is a positive relationship between OC and tenure. However, these results do not consider the effects of organizational level or rank, and function. Thus, we use ordinary least squares (OLS) to consider the effects.

Table 4 shows the result of the OLS estimation for two types of commitment. All the dependent variables' estimators indicated that there was a positive association between *Tenure* and continuance commitment ($\beta = 0.01, p < 0.001$), which support hypothesis 1a. Supporting

Table 3
Means, Standard Deviations (SD), and Inter-correlations for the Study Variables

Variables	Mean	SD			
Tenure	13.46	9.14	1		
MR_d	.50	.50	.23***	1	

R&D_d	.20	.40	-.01	-.50***	1
Midway_d	.25	.43	-.03	-.03	-.027*
Vertical movement	.27	.44	.06***	.10***	.01
Functional movement	2.95	.89	.02	.06***	-.13***
Radical/horizontal movement	3.08	.84	.07***	.06***	-.05***
Relational contract	3.71	.83	.04**	.15***	-.032**
Transactional contract	3.73	.90	.05**	.14***	-.01
Loyalty	3.89	.65	.08***	.10***	.04**
Nonreward work	3.73	.79	.08***	.16***	-.02
Maintenance of relationship	3.15	.68	.07***	.31***	-.17***
Affective commitment	3.63	.81	.11***	.11***	-.02
Continuance commitment	2.86	.81	.12***	.012	-.00

Variables				
Tenure				
MR_d				
R&D_d				
Midway_d	1			
Vertical movement	-.01	1		
Functional movement	.01	.05**	1	
Radical/horizontal movement	.02	.10***	.18***	1
Relational contract	-.03	.08***	.13***	.42***
Transactional contract	-.03	.10***	.11***	.40***
Loyalty	-.02	.12***	.11***	.37***
Nonreward work	.01	.13***	.12***	.34***
Maintenance of relationship	-.02	.12***	.47***	.33***
Affective commitment	-.02	.13***	.15***	.58***
Continuance commitment	.01	.08***	.10***	.18***

*, **, *** denote two-tailed significance at the 10 percent, 5 percent, and 1 percent levels, respectively.

hypothesis 3a, Vertical movement did not have significant impact on continuance commitment (β =-0.05, $p > 0.05$). Functional and radical / horizontal movement, however, did have significant impact on continuous commitment (β =0.07, $p < 0.001$ for functional movement; β =0.16, $p < 0.001$ for radical / horizontal movement). Thus, hypotheses 3b and 3c was not supported.

As shown in Table 4, we could find that *Tenure* is not significantly related to affective commitment (β = 0.00, $p > 0.05$). Therefore, hypothesis 1b was supported. Hypotheses 4a, 4b, and 4c stated that three types of movement (vertical, functional, and radical) would positive effect on affective commitment. Supporting these hypotheses, coefficient of these variables were significant (β =0.09, $p < 0.05$ for vertical movement; β =0.05, $p < 0.001$ for functional movement; β = 0.54, $p < 0.001$ for radical / horizontal movement).

Table 4 OLS Estimation Results: Organizational commitment				
	Affective Commitment		Continuance Commitment	
	Coefficient	t-statistics	Coefficient	t-statistics
Intercept	1.68	30.82 ***	2.04	30.83 ***
Tenure	.00	.81	.01	5.72 ***
MR_d	.15	6.03 ***	-.04	-1.38
R&D_d	.14	4.32 ***	.01	.29
Midway_d	-.05	-1.87 *	.02	.77
Vertical movement	.09	2.73 **	-.05	-1.20
Functional movement	.05	3.93 ***	.07	4.58 ***
Radical/horizontal movement	.54	41.92 ***	.16	10.19 ***
R2	.35		.05	
adj_R2	.35		.05	

*, **, *** denote two-tailed significance at the 10 percent, 5 percent, and 1 percent levels, respectively.

Table 5 and 6 shows the result of the OLS estimation for employee's perception of employer and employee obligations (i.e. psychological contract). As shown in table 5 and 6, there was a negative association between *Tenure* and any contract obligations (β = -0.01, p < 0.001 for relational contract; β = -0.01, p < 0.001 for transactional contract; β = -0.00, p < 0.05 for loyalty; β = -0.01, p < 0.05 for nonreward work; β = -0.01, p < 0.001 for maintenance of relationship). Therefore, hypothesis 2 was strongly supported. Hypotheses 5a, 5b, and 5c predicted that vertical, functional and radical / horizontal movement would have positive effect on PC. Supporting these hypotheses, coefficient of these variables were significant in relational contract (β =0.14, p < 0.001 for vertical movement; β =0.05, p < 0.001 for functional movement; β = 0.40, p < 0.001 for radical / horizontal movement), transactional contract (β =0.20, p < 0.001 for vertical movement; β =0.04, p < 0.05 for functional movement; β = 0.42, p < 0.001 for radical / horizontal movement), Loyalty (β =0.15, p < 0.001 for vertical movement; β =0.02, p < 0.05 for functional movement; β = 0.28, p < 0.001 for radical / horizontal movement), and Nonreward word (β =0.21, p < 0.001 for vertical movement; β =0.09, p < 0.001 for functional movement; β = 0.29, p < 0.001 for radical / horizontal movement), and Maintenance of relationship (β =0.16, p < 0.001 for vertical movement; β =0.31, p < 0.001 for functional movement; β = 0.19, p < 0.001 for radical / horizontal movement).

Table 5 OLS Estimation Results: Employer obligation				
	Relational contract		Transactional contract	
	Coefficient	t-statistics	Coefficient	t-statistics
Intercept	2.22	35.62 ***	2.21	32.30 ***
Tenure	-.01	-4.07 ***	-.01	-4.20 ***
MR_d	.29	10.07 ***	.32	10.06 ***

R&D_d	.17	4.77 ***	.24	6.18 ***
Midway_d	-.06	-2.10 **	-.06	-2.08 **
Vertical movement	.14	3.82 ***	.20	4.95 ***
Functional movement	.05	3.55 ***	.04	2.37 **
Radical/horizontal movement	.40	27.21 ***	.42	25.66 ***
R2	.20		.19	
adj_R2	.20		19	

*, **, *** denote two-tailed significance, the 10 percent, 5 percent, and 1 percent levels, respectively.

Table 6
OLS Estimation Results: Employee obligation

	Loyalty		Nonreward work		Maintenance of relationship	
	Coefficient	t-statistics	Coefficient	t-statistics	Coefficient	t-statistics
Intercept	2.81	56.67 ***	2.42	39.86 ***	1.47	32.54 ***
Tenure	-.00	-2.10 **	-.01	-2.89 **	-.01	-5.12 ***
MR_d	.19	8.11 ***	.28	9.96 ***	.42	19.87 ***
R&D_d	.22	7.62 ***	.18	5.30 ***	.08	3.16 **
Midway_d	-.03	-1.37	.02	.87	-.03	-1.38
Vertical movement	.15	4.84 ***	.21	5.72 ***	.16	5.73 ***
Functional movement	.02	2.99 **	.09	6.40 ***	.31	30.76 ***
Radical/horizontal movement	.28	23.62 ***	.29	20.01 ***	.19	17.87 ***
R2	.17		.15		.36	
adj_R2	.17		.15		.36	

*, **, *** denote two-tailed significance, the 10 percent, 5 percent, and 1 percent levels, respectively.

DISCUSSION

We investigated the effects of several career change variables such as tenure, vertical, functional, and horizontal career change in organization on OC and PC. The findings described in this paper suggest that how employees' perceived affective commitment, continuance commitment, and PC change differ from each other.

Continuance commitment changes both incrementally and discontinuously. Continuance commitment incrementally increases over time. According to Marsh and Mannari (1971), in Japanese organizations, the perceived costs of not continuing with employment for employees increase with time. The results of this paper support this notion. In addition, continuance commitment also changes discontinuously through functional movement and radical / horizontal movement. The way PC change is also both incremental and discontinuous. The direction, however, is opposite that of continuous commitment. As tenure increase, perceived obligations incrementally decrease. As time passes, employees gradually do not intentionally seek information and become less concerned about employer and their own obligations. A decrease in

PCs, however, could disrupt this process. Discontinuous career changes such as vertical movement, functional movement, and radical / horizontal movement increase the perceived strength of employer and their own obligations. Contrary to continuance commitment and PCs, affective commitment can change only in discontinuous manner. As Kanai et al. (1998) and Suzuki (2002) suggested, emotional attachment to and identification with the organization may change only with career movement.

Present findings shed light on the development of EOR. As socialization theorists suggest, employees in initial few years in employment actively gather information about organization and their jobs to establish and clarify their identity within organization. They may use several types of information to fine-tune their understanding of PC regarding what they can expect and what they need to contribute.

The employee's perceived obligation, however, decreases with time and increases only when they experience discontinuous career development. Simultaneously, the employee's perceived sunk cost (i.e. continuance commitment) increases with time. They think the magnitude of their investments increases and they do not have employment alternatives. The employee's perceived attachment to organization does not change with time. It can change only when they experience discontinuous career movement. In other words, employees without vertical movement, functional movement, and radical / horizontal movement does not experience an increase in affective commitment toward the organization. As indicated above, career movement such as vertical movement, functional movement, and radical / horizontal movement increases perceived obligations and affective commitment. In this viewpoint, the frequent use of functional movement and hierarchy in Japanese organizations may imply a frequent experience of career movement. Therefore, for employees' perspective, specializations in career tracks and removing layers in hierarchy in Japanese companies may imply lack of career change experiences in their careers. Since these trends (specialization and removing layers) are inevitable for Japanese employers, a critical issue for them is to investigate in alternative factors triggering increase in their sense of obligations and attachment.

This paper has several limitations. Since the findings reported here are not based on panel-type data but rather on cross-sectional data, we do not know what happens to employees as their tenure extends over a long period. Longitudinal studies are thus needed to address this issue. In addition, because this study is conducted within a single organization, it has certain limitations related to site specificity. Because the firm is relatively mature, well established, and has high performance, their employees can have a relatively stable career path with good prospects. Moreover, as is often the case with Japanese organizations, their employees' basic wages are partially based on their seniority. Consequently, they do not need to seek information at the start of their careers. Future research should thus examine whether the findings here can be replicated in other organizations. Finally, in this study, processes by which career changes influences EOR are not part of the empirical design. Such approach cannot rule out alternative explanations for the relationship between independent variables and dependent variables. In the future, several mediators in the relationship should therefore be clarified.

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RELATIONSHIP BETWEEN FDI AND FII/FPI: A CASE STUDY OF INDIA

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ABSTRACT

FDI and FPI/FII are two major forms of foreign investments in the global financial system. Extensive studies have been done and their impact on almost all aspects of the host and the home country's economy and society. It is a paradox that though essentially they have the same motive, but they are always looking diametrically opposite in term of consequence. Both forms have grown because of, globalization. In some studies, a particular business factor was studied taking into account the two forms, which gave results unique to each form. In this study, an attempt has been made to find links between the two forms.

INTRODUCTION

The literature is replete with two major forms of foreign investment, their impact, drivers and their pros and cons. A lot of studies regarding FDI and FPI/FII have been done with reference to India, China and other emerging markets. The two forms have two things in common: **Origin – Foreign** and **Activity – Investment**. However, there has hardly been any report regarding the interrelationship between these two forms.

METHODOLOGY AND OBJECTIVES

Every investor looks for maximization of returns, irrespective of category – shareholder (FPI) or Owner (FDI). Which leads to the questions – Is there any connection between them, any causal relationship, and any time gap before the causal effect sets in, any long run association etc. This paper makes an attempt to connect the dots. Literature for this paper was obtained from freely available reports of ministries of the Government of India, OECD, UNCTAD, World Bank, IMF and Indian Capital Market Regulator (SEBI) publications. Limited access to Springer Link, Taylor & Francis, Elsevier (Business Management & Accounting) and JSTOR, available in the institute were used for literature review. Econometric analysis was as per Gujarati & Sangeetha (2010) and Brooks (2008) using Eviews 7.

The paper is structured as follows : -

1. Discussion on FDI in India
2. Discussion on FPI/FII in India {technically FPI encompasses FII, however, in literature and in many Indian government reports, they are used interchangeably}
3. Analysis
4. Conclusion

REVIEW OF FDI AND ITS IMPACT ON INDIA

Any investment that flows from one country into another is known as foreign investment. The inflow of investment from other countries complements and leads to domestic investments in capital-scarce economies. In India, Foreign investments are allowed to take the form of investments (through capital market) in listed companies referred as FII investments and investments in listed/unlisted companies other than through Exchanges, are referred as Foreign Direct Investment. In other words FDI means an investment made by a company based in one country, into a company based in another country, companies making such direct investments has a significant degree of influence and control over the company into which the investment is made (Sultana & Pardhasaradhi, 2012).

FDI refers to an investment made to acquire lasting interest in enterprises operating outside the economy of investor. In cases of FDI, the investor´s purpose is to gain an effective voice in the management of enterprise. The foreign entity or group of associated entities that make an investment is termed as "direct investor". The unincorporated or incorporated enterprise-a branch or subsidiary, respectively, in which direct investment is made-is referred to as a "direct investment enterprise". Some degree of equity ownership is almost always considered to be associated with an effective voice in the management of an enterprise. A threshold of 10 per cent of equity ownership is required to qualify an investor as a foreign direct investor (IMF BPMFE 1993). FDI serves as an important source to fulfill the gap between income and savings, in technology up gradation and efficient exploitation of natural resources along with the development of basic infrastructure. It improves balance of payment condition and helps the recipient firms to cope competition in better ways. The main determinants of FDI in India are stable policies in favor of foreign investment, favorable economic factors like interest loan subsidies, removal of restrictions, tax exemptions, availability of cheap and skilled labor and in spite of being a developing country reasonably developed infrastructure like roads, information and communication networks. (Daniel et al 2009).

In 1980 looking into the inability of commercial bank to lend, most of the developing countries removed restriction from foreign investment inflow and started offering several tax incentives & subsidies. Due to a policy change in these countries, there was a huge inflow of non commercial bank capital flow and in a short span of time; FDI accounted for 60 percent of capital flows (Atiken and Harrison 1999). Romer (1994) argued that technology and business known how transferred in the form of foreign investment to poorer countries had positive spillovers over the whole economy. This foreign investment not only increases the productivity of firms receiving foreign capital, but economic growth in the economy.

Findings of studies done by Borensztein, De Gregorio and Lee (1998) found that FDI had positive growth effects over countries which had educated workforce. The cross country regression framework was used using data from 69 developing areas of the past two decades. The results of the study showed that FDI is an important medium of transfer of technology, thereby contributing more to growth than to domestic investment. But higher productivity of FDI is possible only when host country has a minimum threshold stock of human capital. i.e sufficient absorptive capacity. Alfaro et al (2000) suggested that FDI promoted economic growth of the country which also had a well developed financial market. This was an unusual finding till then. Now, FDI has become a key feature of national development strategies for all most all the countries over the globe (Sharma and Singh 2013). The study maintained that in the period 1996-2002, growth rate faltered on account of slow reforms and not due to East Asian crisis.

FDI brings better technology and management, marketing networks and offers competition; while FII investment helps Indian companies to improve performance. Steps were taken to allow foreign portfolio investments into the Indian stock market through the mechanism of foreign institutional investors. The objective was to create non debt creating foreign capital inflows and also to develop the Capital market in India, lower the cost of capital for Indian enterprises and indirectly improve corporate governance structures.Therefore a developing country like India, adopts two strategies at same time one to attract FDI which is associated with various benefits of technology, access to export markets, skills, management techniques, etc. and second strategy is to encourage portfolio capital flows which provides the financing means to Indian enterprises (Aggrawal, 2012).

Table 1
SECTORS ATTRACTING HIGHEST FDI EQUITY INFLOWS
(US$ in millions)

Ranks	Sector	2010-11 (April - March)	2011-12 (April - March)	2012-13 (April – March)	Cumulative Inflows (April ‟00 – March ‟13)	% age to total Inflows (In terms of US$)
1.	Services Sector **	3,296	5,216	4,833	37,235	19 %
2.	Construction Development: Townships, Housing, Built-Up Infrastructure	1,663	3,141	1,332	22,080	11 %
3.	Telecommunications (Radio Paging, Cellular Mobile, Basic Telephone Services)	1,665	1,997	304	12,856	7 %
4.	Computer Software & Hardware	780	796	486	11,691	6 %
5.	Drugs & Pharmaceuticals	209	3,232	1,123	10,318	5 %
6.	Chemicals (Other Than Fertilizers)	2,354	4,041	292	8,881	5 %
7.	Automobile Industry	1,299	923	1,537	8,295	4 %
8.	Power	1,272	1,652	536	7,834	4 %
9.	Metallurgical Industries	1,098	1,786	1,466	7,507	4 %
10	Hotel & Tourism	308	993	3,259	6,631	3 %

** Services sector includes Financial, Banking, Insurance, Non-Financial / Business, Outsourcing, R&D, Courier, Tech. Testing and Analysis (Source: “Fact Sheet on FDI from April 2000 to March 2013” Reserve Bank of India)

Study by Kumar and Dhingra (2011) showed a major change in the nature of FDI inflow from the pre liberalization era. Manufacturing sector received nearly 87% of total FDI in 1980 which reduced to 48% in 1997. The reasons for this were liberalized policy of the government in service and infrastructure sector. Along with this, several new sectors were opened for FDI by increasing sectoral limits. Limits of FDI were raised from 49% to 74% in 2005 in most of the sectors. Real estates and housing sector were opened for FDI in 2006. As per table 1, top ten sectors accounted for 70% of total FDI on cumulative basis. During 1981-1990 FDI inflow was very slow due to tough approval policies even though the amount of FDI increased 12 times from

1980 to 1991 but the gap between approved and actual inflow was very high. The Liberalized policy of government in service and infrastructure sector was responsible for high inflows in these two sectors. Increased FDI inflow in the power sector was due to two reasons (1) high ROI (2) huge size of the market (except in atomic energy).

Between 2000 and 2013, approx. 50% of FDI was routed through Mauritius and Singapore as India has double taxation treaty with these countries (Table 2).

TABLE 2
STATEMENT ON COUNTRY-WISE FDI EQUITY INFLOWS FROM APRIL, 2000 TO MARCH, 2013

S. No.	Country	Amount of Foreign Direct Investment Inflows (In US$ million)	%age with total FDI Inflows (+)
1	Mauritius	73,666.11	38.11
2	Singapore	19,460.35	10.07
3	United Kingdom	17,548.55	9.08
4	Japan	14,550.29	7.53
5	U.S.A	11,121.11	5.75
6	Netherlands	8,965.08	4.64
7	Cyprus	6,889.33	3.56
8	Germany	5,480.30	2.84
9	France	3,572.99	1.85
10	UAE	2,422.47	1.25

(Source: "Fact Sheet on FDI from April 2000 to March 2013" Reserve Bank of India)

Sultana and Pardhasaradhi (2012) studied the relationship and impact of FDI and FII on Indian capital market for the period 2001-2011. They found significant positive correlation between FDI and stock indices (BSE & NSE); while in case of FII moderate correlation was observed. Singla (2011) studied determinants of FDI inflow in India (FY 1993 to 2011) with reference to a stock market index, foreign exchange rate, index of industrial production (IIP), net FII, gross domestic product (GDP) and foreign exchange reserves. It was found that the exchange rate and foreign exchange reserve do not have any significant effect on FDI inflow, but inflows depended on the stock market, IIP and GDP.

Chaturvedi (2011) found that the correlation between FDI and economic development was 0.90. Study by Singh and Srinivasan (2002) confirmed the standard theories of direction of foreign investment which stated that regions which have improved infrastructure, availability of skilled labor and higher per capita income attract higher FDI relatively.

Saiyed (2012) examined the effect of FDI stock on economic growth of India between FY 1990-91 and 2011-12 using regression technique. Positive correlation between FDI and G.D.P growth was observed along with unidirectional causality between FDI and output on an annual basis. Research by Das & Das (2012) confirmed significant rise in FDI post reforms (1991). Gharana (2012) examined the cause and effect of FDI to GDP and exports to GDP for the period 1999 to 2008 and observed that in this short period Granger cause was stronger from export led growth (i.e. Export to GDP) than vice versa. Kinda (2012) found that crucial elements in attracting FDI are developed infrastructure and developed HR, strengthened institutional capabilities and low inflation & strong economic growth. Agbloyer et al (2013) findings regarding Africa were:

(1) Existence of bi- Directional Causalities relationship between banking sector development and increased FDI.

(2) Existence of bi-directional causality between improvements in financial sector and FDI.

Jadhav (2012) found that FDI to BRICS primarily was not because of resource seeking motive but to access their markets for the products of investing organization. Vita &Kyaw (2009) studied the impact of FDI & FPI flows on economic growth of low, lower-middle & upper-middle income countries for the period 1985-2002. The Findings were that in the case of upper-middle income countries, a 1% increase in FDI increases per capita real GDP growth by 0.004%, twice the magnitude of the impact on lower-middle income countries in this group and opposite in direction. Anwar & Nguyen (2010) examined determinants regarding FDI in Vietnam. It was observed that absorptive capacity (education, technological status) of a country plays an important role. Work done by Bayrakhtarn (2013), focused on the flow of FDI from developed to developing countries (including India) and found that 'ease of doing business" plays a positive role. The parameters were- Starting an enterprise, construction permits, registration, tax structure & rate, trade across borders, contract enforcement and winding up of the business.

Mathiyazhagan (2005) studied the impact of FDI on India's different socio economic aspects with the aid of the panel cointegration test. According to the study, till 1991 due to the regulatory policy framework, growth of FDI was insignificant in India. But soon after 1991 inflows increased from US$ 143.6 million in 1991 to US$ 3108.9 million in 2003 which contributed to average growth of 6% to GDP. Panel co integration test technique was used to assess impact of FDI at sectoral level in the long run, with gross output, exports and labor productivity in Indian economy from 1990-91 to 2000-2001. The result of the study proved that FDI positively co integrated with gross output, export and labor productivity in transportation and metallurgical sectors but exhibited negative co integration in food processing and industrial machinery sectors. As early as mid 60s, Beckerman (1965) found that exports play a vital role in the economic growth of developing countries. Several studies have suggested that FDI promotes exports of host countries in three ways (1) Providing necessary capital for Exports (2) Technology transfer and development of new products (3) Enables host market to access new large and developed foreign markets and also the development of skills in the host country workforce by training (Caves 1996; UNHDR 2003).

Ayut & Sayek(2006) observed if FDI inflow is towards manufacturing sector, result is positive for growth; on the other hand if inflows are towards service sector or primary sector, it causes adverse effect on economic growth. Since the beginning of reforms, aim of Indian Government was to facilitate FDI in advance technology sectors. This led to skewed growth in export of engineering goods, IT &ITES sectors, which require skilled and highly skilled workers. An indirect result has been the overall decline of manufactured goods exports. An unrelated reason for lower growth in manufacturing sector, including lower FDI in this sector is because of antiquated labor laws, resulting in overall increased capital to labor ratio (Datt & Mahajan2012).

Klein and Palanivel (2000) studied economic reforms and growth prospects in India. The emphasis of the study was on financial sector reforms, economic framework of the country and its growing linkages with the rest of the world. Some of the positive financial reforms were: -

1. Capital market liberalization.
2. Lowering of operating constraints on the banking sector.
3. Disinvestment in government owned Domestic Financial Institutions (DFI) and opening up areas of the financial sector to private areas e.g. Banking and Insurance etc.

Some of the observations in the above study were:

1. In the period 1990-97, both India and China started exhibited greater integration with world economy, measured as ratio of trade (export& import) with GDP. However the rate of integration of India was higher, perhaps on account of lower base effect.
2. First phase of reforms (1991-1996) was on account of exchange rate devaluation, conducive global trade factor and large scale deregulation in domestic business environment. The sluggishness shown in the latter half of decade was on account of limitation of the last two factors and also down turn of the global trade (East Asian trade crisis)
3. Capital market liberalization led to an unusual effect. FPI overtook FDI very soon.
4. Manufacturing exports had reached their peak (contrary to path traversed by East Asian countries); service sector started showing higher growth rate (service sector exports exhibited CAGR of 7.1% between 1990 and 1998).
5. Comparison with East Asian countries up to 1995 revealed that India had the lowest share of technologically advance goods in manufactured exports (science based goods and brand differentiated products) among the newly industrialized countries in East Asia excluding Japan

REVIEW OF FII/FPI AND ITS IMPACT ON INDIA

Institutional investor is any investment entity which is registered in country outside the country in which it is currently investing. It includes hedge funds, insurance companies, pension funds, mutual funds, asset management companies. Foreign portfolio investments (FPI/FII) are more difficult to manage than foreign direct investments (FDI) since they are very volatile and have the capacity to get affected both by domestic and external factors.

The Indian financial market was thrown open in September 1992 to FII. Fund managements have to register with SEBI. SEBI places limits and ceiling limits on investment in sectors as per their evaluation. The Major source of their investment is in the form of participatory notes (P notes) also commonly known as offshore derivatives. Since last decade, they have contributed a lot in changing the face of the Indian markets. The changes include both quantitative as well as qualitative aspects. FPI's have increased the depth and breadth of the capital indicating that FPI investment follows the stock indices (Dhiman, 2012). By the beginning of new century, it was observed that FII had an important role in building of currency reserves of India (Juneja, 2013).

Bohra and Dutt (2011) studied investment by FII in various group of stocks in BSE and FII behavior in equity market in India for the period 2000-2009. BSE index and FII investment had a close relationship during this period. With index moving up FII increased and vice versa. This was confirmed by Dhiman (2012). Capital market provides investors with assets with varying degrees of risk, return and liquidity. The demand of portfolio investment is created by companies and route is decided by the Government. Bombay Stock Exchange (BSE) has classified equity scripts into various categories on the basis of market capitalization, trading volume and numbers, track records, profits, dividend, shareholding patterns and other basic quantitative aspects. As per their findings, shares of some categories attract FII to a large extent while some in moderate amount, and result in very less or almost nil.

Study done by Jain et.al (2012) examined the role of FII on sensitivity index (sensex) of Indian capital market for the period 2001 -2010. Significant coefficient was found between BSE index and FII inflows. FIIs were found to exert a dominant role in short term market movements. Correlation between foreign inflows and market returns are higher in bear market but in case of bull market correlation decreased significantly. This could be due to expectation of lower share appreciations in bullish market.

Bansal and Pasricha (2009) found that entries of FIIs have affected both the volatility and returns of Indian stock market without any significant change in average returns of market. The existence of Granger causality from FII to index was observed. Rai and Bhanumurthy (2004) did not find any causation between FII and returns in BSE between 1994 and 2002 but found close positive relationship between portfolio investments and BSE index movement –index increased with positive portfolio inflows while with negative inflows it decreased.

Poshakwale and Thapa (2007) attempted to explain influence of portfolio investments in short term and long turn relationship of Indian equity market with equity markets of US and UK. The findings of study showed a strong relationship between FPI inflows and movement of Indian capital market index (r =0.90). Average daily returns from Indian markets were found to be higher compared to US and UK markets. The study also supported earlier findings that US and UK markets influence movements in Indian capital market in the short run as well as in long runs and also influence the flow of foreign capital. The study found that Indian capital market returns are independent of the returns in the US and UK, but FPI flows play a very important role to explain co- movements of the Indian equity market with markets of US and UK. This means that FPI movement from USA and UK get affected by the capital market, sentiment of their country.

Hsin (2004) found that US plays dominating role in transmitting shocks to other markets. Dungey et., al (2004) confirmed the applicability of above for the Australian market. Sen et., al (2005) observed certain positive effects of portfolio inflows in India like, improvement in quality of trading and settlement procedure of the stock exchanges of the country and improvement in the information flow of the trading system. Tax concessions of charging capital gains at lower rates compared to domestic investors also helped increase portfolio inflows.

Banaji (2000) was of the view that for FII inflows, an important issue is the level of the free float. Floating stock in the Indian market was less than 25% and about 35% of free float was held by FIIs. Gordan and Gupta (2003) found that even though India received approximately 1% of portfolio investment in emerging markets, portfolio flows were comparatively less volatile. FIIs invest in good quality scrips, high growth and large cap markets. Banaji (2000) found that reforms in capital markets like transparency, automation, dematerialization, increased disclosure were introduced due to FII investment in markets, which also lead to further inflows. *FII flows have been found to be both cause and effects of capital market reforms.*

Sen and Krishnamurti (2005) studied inter relationship between FII inflows and domestic returns. They also tested the existence of base broadening hypothesis followed by price pressure and feedback trading hypothesis. Their study proved high correlation between returns and FPI inflow. Warther (1995) also found results in favor of base broadening hypothesis. In the study done on relation between aggregate mutual fund flows in US and security returns, Sen and Krishnamurti (2005) classified flows into expected and unexpected inflows using time series model. Positive correlation between returns and unexpected inflows was observed. Perhaps expected returns are anticipated by market so they do not influence returns and market reacts only with unexpected flows.

Aggarwal et al (2005) studied investment allocation of US mutual funds, taking sample of 114 US mutual funds investment in 1280 firms in emerging economies. Period of study was late 1990's (post East Asian currency crisis), with the objective to find out how country and firm level policies affect FPI decisions. Main observations were, that countries having better accounting policies, strong legal and shareholder rights, transparent corporate accounting norms, stringent disclosures norms along with fewer restrictions on foreign capital were able to attract American Depository Receipts (ADR) and US mutual funds. High quality disclosures in Annual Statements help foreign investors protect their investments. Study by Laporta et.,al (1997) showed that financial market development of emerging economies depend to the extent the host country stressed on investor protection laws and stringent disclosures norms and enforcement of the same. Studies by Johnson et.,al (2000), Mitton (2002) and Joh (2003) showed a positive linkage between return and performance in the firms which adopted disclosures and governance policies before and after East Asian crisis. They concluded that foreign investors preferred companies with better corporate governance. East Asian Crisis of late 1990's was on account of crony capitalism along with absurd leverage ratios and poor disclosure norms which acted as hindrance for some FIIs (Kapstein 2006). Large share holders affect firm value and also influence benefits (dividends, yield, EPS etc) received from firms (Burkart 1997). This too becomes cause of FPI inflows. From all these studies it seems that FPI inflows are more a function of corporate transparency. There seems to be a tenuous linkage between FPI and index movement - *FPI become the cause and effect in strengthening of capital markets.*

Prasanna (2008) examined contribution of portfolio invested companies included in benchmark index of (Bombay Stock Exchange) BSE and looked into relationship between FPI and firm specific characteristics like ownership structure, financial performance and stock performance; and found that FI is more in companies which have dispersed stock ownership. EPS and PE ratios also influence investment decisions. It was observed that FII's withdraw money when stock market goes down. As per the study, financial market performance and widely distributed ownership can be correlated with higher FPI. Link between FPI and labor productivity was also found to be positive. However this did not form part of main study. Labor productivity in general is known to rise with skill enhancement, automation and process improvements, normally associated with broader rise in FI (Daniels et al2009). Findings of Li & Jeong Bon (2004) suggest that foreign investors usually avoid investment in high cross corporate holdings. It was also found that Japanese firms with *low information asymmetry* were preferred by FIIs. Promoters' holdings and foreign investment are inversely related as FIIs prefer to invest in firms having lower shareholding by promoters.

Saha (2009) studied impact of participation of different investor groups especially FII on performance of Indian stock market. Main factors which helped Indian stock market to gain momentum and to complete internationally were flexible industrial deregulation, currency exchange rates, well developed equity markets and manageable public debt.

According to Brenan and Henery (1997) FII have bi directional causation with returns of other domestic financial markets such as –money market, capital market and foreign exchange markets. FDI has impact on the host country in form of advance technology, marketing skills, and organized management and in expansion of foreign trade. While on the other hand FII increases liquidity of market along with increase in P/E ratio which on other hand reduces cost of capital (World Bank, 1997). Thus the impact of FPI is restricted in comparison to FDI. Pal (1998) found that risk factors play a crucial role in determining both, domestic and foreign investments. It was found that FPI's normally enter into secondary market rather than primary

markets and significant secondary transactions are on account of FPIs. Domestic individual investors were found to move to debt market via bank deposits or debt based mutual fund investments. Role of FPIs led to increased volatility in secondary market.

Another study done by Bandopadhyay (2005) showed that portfolio investment improves balance of payment position along with the liquidity of host market. Agarwal (1997) observed that increase of global capital market capitalization had a positive impact on FPI inflows to India. Rangarajan (2000) found that FPI affect capital markets directly by widening the investor base and compel local authorities to make their trading system more efficient. Khanna (2002) observed that FII has brought all round development of capital markets by expanding securities business along with increasing the depth and breadth of market.

Gordan and Gupta (2003) suggested possibilities of the bidirectional relationship between FII and equity returns. Huge investments make them market makers and also provide high returns. FPIs generally buy financial assets on the decline and sell on increase, contrarian strategy to Domestic Financial Institutions (Bose 2012). In India net investment by FII's and trends of international stock exchanges have played a dominating role in affecting stock prices. The Search for higher returns by FII's has led to record increase liquidity inflows in the emerging markets both in bonds and equity funds (RBI, 2005). India has gained high ranking as good investment destination by S&P's and Moody's, which have naturally initiated confidence on FII's and attracted even Japanese investors towards India. It is evident from increased Japanese inflow in last few years. FIIs are more dominating players in equity markets as compared to debt markets and this is just reverse in the case of mutual funds. A reason for this could be that FPI decisions are influenced by home country corporate headquarters. Table 3 depicts assets under FII assets under management on a cumulative basis

Table 3
ASSETS UNDER FII ASSETS UNDER MANAGEMENT ON CUMULATIVE BASIS (AS ON JAN 14, 2014)
(Monetary figures in US$ million)

Sr. No.	Sectors	Equity	Debt	Total
1	Automobiles & Auto Components	10,249	0	10,249
2	Total Financial Services	49,312	4,404	53,715
2a	Banks	28,085	27	28,112
2b	Other Financial Services	21,227	4,377	25,604
3	Capital Goods	11,393	72	11,465
4	Chemicals & Petrochemicals	1,790	0	1,790
5	Coal	1,424	0	1,424
6	Commercial Services & Supplies	1,166	0	1,166
7	Construction Materials	3,861	0	3,861
8	Consumer Durables	645	0	645
9	Diversified	422	0	422

10	Diversified Consumer Services	29	0	29
11	Food, Beverages & Tobacco	13,471	0	13,471
12	Forest Materials	58	0	58
13	General Industrials	1,059	0	1,059
14	Hardware Technology & Equipment	13	0	13
15	Healthcare Equipment & Supplies	36	0	36
16	Healthcare Services	902	20	922
17	Hotels, Restaurants & Tourism	830	0	830
18	Household & Personal Products	6,780	0	6,780
19	Media	3,067	30	3,098
20	Metals & Mining	6,226	42	6,269
21	Oil & Gas	13,453	388	13,841
22	Pharmaceuticals & Biotechnology	15,049	5	15,054
23	Realty	1,942	40	1,982
24	Retailing	476	0	476
25	Software & Services	37,933	0	37,933
26	Telecom Services	5,216	74	5,290
27	Telecommunications Equipment	15	0	15
28	Textiles, Apparels & Accessories	2,392	0	2,392
29	Transportation	2,232	0	2,232
29 a	Airlines	24	0	24
29 b	Logistics	177	0	177
29 c	Marine Port & Services	1,044	0	1,044
29 d	Roads & Highways	136	0	136
29 e	Shipping	185	0	185
29 f	Surface Transportation	1	0	1
29 g	Transport Related Services	665	0	665
30	Utilities	7,378	78	7,456
31	Sovereign	0	11,890	11,890
32	Others	7,491	5,016	12,506

	Grand Total	**206,310**	**22,061**	**228,370**

(Source: SEBI Fortnightly Release)

FIIs have invested in Service sector, keeping in line with the general direction of growth sectors in India. The unavailability of secondary corporate debt market is reason why debt investment FPIs is so low (RBI 2014).

INTERRELATIONSHIP BETWEEN FDI AND FPI/FII

Kinda (2012) made an attempt to find out any common drivers between FDI and FPI in developing countries, including India. The study could not find any connection between the two forms but among the various variables studied it was, found that inflow of FDI is contingent on development of physical infrastructure and that of FPI on financial development (sound monetary policy and stronger oversight in the financial system).

Pfeffer (2008) studied relationship between the two forms of FIs. The study looked from the point of an investor – whether investing in firms of host country should be through FDI or FPI route. Though the study did not take up the research problem in consideration, but, there was one striking observation – *"that firms adjust to short-term changes via FPI and keep FDI stable. FPI can prop up small and medium sized changes and therefore, the valuation of FDI with combined FPI is higher than of isolated FDI. Hence, a combined FPI and FDI investment strategy increases the firm's flexibility. A combination of both investment instruments increases the valuation of the respective instruments."* This happens to be one of the rarest findings in the vast plethora of FDI and FPI studies, which showed some long run association between the two forms.

Agbloyor et al (2013) in their study of African countries found a three way relationship between banking industry, FDI and development of financial markets. Bi-directional positive causality was observed between FDI and development of banking sector. As per the study this leads to greater openness in banking sector in particular and financial markets through relative opening up of capital account. This can bring in more FPI. However this study was limited to Ghana. Its extension to a matured economy like India may be sub optimal since the levels of developments are different. A perusal of the references in the study failed to connect effectively the dots between FDI and FPI. An interesting finding by Wu et al (2012) was that rule based societies had more of FPI component since investors had faith in legal system; whereas societies, which have promoter driven companies, tend to have more of FDI so as to monitor and control investment to maximize sustainable profits. An important point raised by authors, with special regard to developing countries is that host countries must evolve a governance system, which increases trust among foreign investors to invest in any form. A minor logic that might explain that in case of India FPI is more than FDI could be that rules related to capital markets (enactment of SEBI Act 1992, clause 49 of Listing Agreement etc.) were framed post liberalization and based on UK/USA models. FDI is regulated through various routes & departments, in existence for a long time (e.g., FIPB, DIPB, RBI and sometimes Cabinet Committee), Income Tax Act 1962 and the newly notified Companies Act 2013. However the study did not cover interrelationship between the two forms of FI.

Nair (2012) studied impact of FDI and FPI, along with other macro-economic parameters. From this work it was seen that increase in FDI has an almost similar (in % terms) positive impact on inflation. FPI was found to play a mixed role, in the sense that increase in FPI

leads to excess money supply and on other hand a relaxed capital account faces threat of FPI outflow. Thus the study limited itself to money supply/inflation. Impact of both the forms was considered separately. And no attempt was made to conduct causal relationship between the two forms of FI.

Rodoinova (2013) studied impact of FDI and FPI on 19 countries comprising, Central & Eastern Europe, Balkans, Latin America and former USSR countries. Findings of the study are important because it stated that firstly on account of significant accumulation of FDI stock over time, repatriation (dividends, royalties etc.) may exceed net annual FDI; secondly in case of FPI, repatriation of investment (or their returns) exert downward pressure on country's' finances. As per this study, both forms exert pressure on current account balance in the long run. The results of this study cannot be applicable in case of India, since the economic drivers of these 19 countries and India are different and composition of trade account is different, which as per the study was one of the underlying reason.

FDI AND FPI/FII INTERRELATIONSHIP IN INDIA

As per data available from CMIE Prowess database, quarterly inflow of FDI and FPI/FII between September 1992 till June 2013 are given in table 4

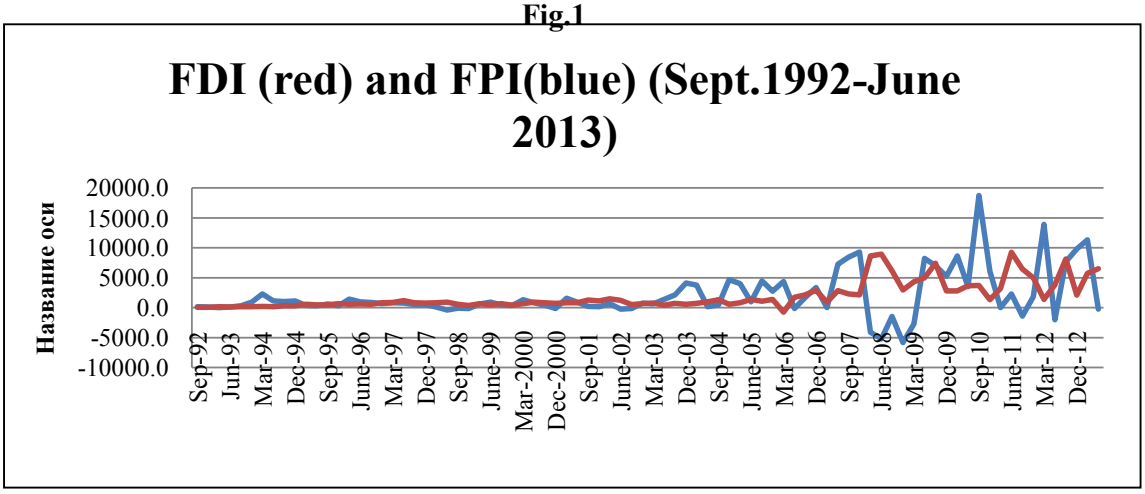
Table 4
QUARTERLY INFLOW OF FOREIGN INVESTMENT (IN US$ MILLION)

Quarter	FPI	FDI
Sep-92	154.0	59.0
Dec-92	84.0	66.0
Mar-93	4.0	137.0
Jun-93	124.0	123.0
Sep-93	307.0	140.0
Dec-93	935.0	131.0
Mar-94	2282.0	192.0
June-94	1120.0	170.0
Sep-94	991.0	303.0
Dec-94	1097.0	309.0
Mar-95	371.0	561.0
June-95	325.0	471.0
Sep-95	595.0	449.0
Dec-95	300.0	664.0
Mar-96	1441.0	549.0
June-96	978.0	595.0
Sep-96	878.0	538.0
Dec-96	662.0	831.0
Mar-97	794.0	878.0
June-97	735.0	1164.0
Sep-97	492.0	795.0

Dec-97	515.0	782.0
Mar-98	86.0	821.0
June-98	-423.0	904.0
Sep-98	-117.0	543.0
Dec-98	-149.0	365.0
Mar-99	621.0	668.0
June-99	899.0	452.0
Sep-99	450.0	648.0
Dec-99	346.0	400.0
Mar-2000	1329.0	667.0
June-2000	789.0	924.0
Sep-2000	396.0	804.0
Dec-2000	-168.0	704.0
Mar-01	1573.0	840.0
June-01	935.0	808.0
Sep-01	216.0	1293.0
Dec-01	129.0	1133.0
Mar-02	672.0	1500.0
June-02	-263.0	1240.0
Sep-02	-131.0	532.0
Dec-02	745.0	676.0
Mar-03	593.0	769.0
June-03	1376.0	386.0
Sep-03	2136.0	702.0
Dec-03	4111.0	587.0
Mar-04	3733.0	713.0
June-04	156.0	963.0
Sep-04	464.0	1334.0
Dec-04	4684.0	582.0
Mar-05	3983.0	834.0
June-05	972.0	1350.0
Sep-05	4441.0	1076.0
Dec-05	2748.0	1368.0
Mar-06	4333.0	-760.0
June-06	-167.0	1738.0
Sep-06	1690.0	2116.0
Dec-06	3362.0	2898.0
Mar-07	-1.0	941.0
June-07	7226.0	2874.0
Sep-07	8422.0	2266.0
Dec-07	9254.0	2121.0

Mar-08	-4115.0	8632.0
June-08	-5207.0	8944.0
Sep-08	-1446.0	6159.0
Dec-08	-5828.0	2941.0
Mar-09	-2713.0	4328.0
June-09	8225.0	4970.0
Sep-09	7014.0	7425.0
Dec-09	5210.0	2791.0
Mar-10	8619.0	2780.0
June-10	3491.0	3644.0
Sep-10	18699.0	3694.0
Dec-10	6066.0	1310.0
Mar-11	-13.0	3186.0
June-11	2263.0	9256.0
Sep-11	-1401.0	6485.0
Dec-11	1814.0	4963.0
Mar-12	13896.0	1356.0
June-12	-2016.0	3821.0
Sep-12	7632.8	8159.2
Dec-12	9773.4	2105.7
Mar-13	11314.0	5733.0
June-13	-245.0	6495.0
Total	**167668.2**	**159864.9**

Fig.1



FPI in India has been more that of FDI in the period selected. Post September 2007, FPI and FDI have tended to move in almost opposite direction. Reasons for gain in FDI have been mentioned earlier. Drastic reductions in FPI between September 2007 and March 2009 can be attributed to global economic crisis. Post March 2009 till June 2013, the fluctuations were on account of release of large sum globally on low interest rates, currency depreciation & high current account deficit of India (Banerji and Khan 2014).

To observe any cause and effect relationship, the following steps are being undertaken.

1. Identification of Heteroskedasticity in FDI and FPI (abbreviated results)

Table 5
HETEROSKEDASTICITY TEST: ARCH (FDI)
Obs R^2 11.29 Prob. Chi^2 0.0008
Heteroskedasticity Test: ARCH(FPI)
Obs R^2 0.77 Prob. Chi^2 0.38

Heteroskedasticity (ARCH effect) is present in FDI but not in FPI.

2. Making the two series stationary.
They are non stationary and become stationary at first difference as per tables 5 and 6.

Table 6
NULL HYPOTHESIS: D(FPI) HAS A UNIT ROOT

Exogenous: Constant
Lag Length: 1 (Automatic - based on SIC, maxlag=11)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-9.558478	0.0000
Test critical values:	1% level	-3.513344	
	5% level	-2.897678	
	10% level	-2.586103	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(FPI,2)
Method: Least Squares
Sample (adjusted): 1993Q2 2013Q2
Included observations: 81 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(FPI(-1))	-1.816942	0.190087	-9.558478	0.0000

D(FPI(-1),2)	0.294626	0.113827	2.588369	0.0115
C	104.3301	451.7822	0.230930	0.8180
R-squared	0.706485	Mean dependent var		-141.7160
Adjusted R-squared	0.698959	S.D. dependent var		7399.794
S.E. of regression	4060.059	Akaike info criterion		19.49212
Sum squared resid	1.29E+09	Schwarz criterion		19.58080
Log likelihood	-786.4307	Hannan-Quinn criter.		19.52770
F-statistic	93.87233	Durbin-Watson stat		1.982094
Prob(F-statistic)	0.000000			

Table 7
Null Hypothesis: D(FDI) has a unit root
Exogenous: Constant
Lag Length: 2 (Automatic - based on SIC, maxlag=11)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-9.259222	0.0000
Test critical values:	1% level	-3.514426	
	5% level	-2.898145	
	10% level	-2.586351	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(FDI,2)
Method: Least Squares
Sample (adjusted): 1993Q3 2013Q2
Included observations: 80 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(FDI(-1))	-2.295741	0.247941	-9.259222	0.0000
D(FDI(-1),2)	0.844424	0.181272	4.658339	0.0000
D(FDI(-2),2)	0.367073	0.118696	3.092548	0.0028
C	160.5573	175.9932	0.912293	0.3645
R-squared	0.707403	Mean dependent var		9.700000
Adjusted R-squared	0.695853	S.D. dependent var		2840.110
S.E. of regression	1566.306	Akaike info criterion		17.59953
Sum squared resid	1.86E+08	Schwarz criterion		17.71864
Log likelihood	-699.9814	Hannan-Quinn criter.		17.64729
F-statistic	61.24768	Durbin-Watson stat		2.104001
Prob(F-statistic)	0.000000			

2. To estimate Granger causality between FDI and FPI.
   Best possible lag selection was 11 i.e., two and three quarter years. However VAR and VECM model cannot be estimated because one of the variables (FDI) exhibits Heteroskedasticity.

Table 8
GRANGER CAUSALITY TEST BETWEEN FDI AND FPI

Pairwise Granger Causality Tests
Sample: 1 85
Lags: 11

Null Hypothesis:	Obs	F-Statistic	Prob.
STATFDI does not Granger Cause STATFPI	72	9.35152	1.E-08
STATFPI does not Granger Cause STATFDI		1.93139	0.0578

Conclusion from table 7 is that FDI has an impact on FPI after a gap of 11 quarters or in general form, within two to three years. FDI to a large extent is dependent, in India, on government policies and reform process. It is reasonable to expect that FPI though perception and capital market based, would follow the trend of FDI.

3. Any further cause & effect relationship requires checking for Heteroskedasticity among residuals of OLS estimations between FPI and FDI.

Table 9
OLS BETWEEN FPI AND FDI

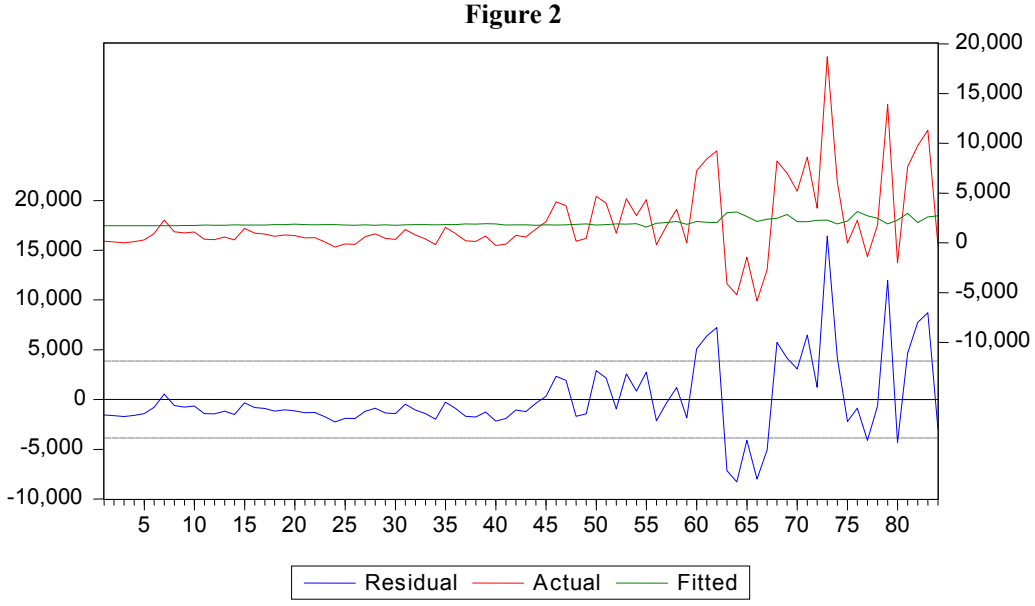
Dependent Variable: FPI
Method: Least Squares
Sample: 1 84
Included observations: 84

Variable	Coefficient	Std. Error	t-Statistic	Prob.
FDI	0.155395	0.185653	0.837019	0.4050
C	1700.310	549.4286	3.094687	0.0027

R-squared	0.008472	Mean dependent var	1996.050
Adjusted R-squared	-0.003620	S.D. dependent var	3849.303
S.E. of regression	3856.264	Akaike info criterion	19.37631
Sum squared resid	1.22E+09	Schwarz criterion	19.43418
Log likelihood	-811.8049	Hannan-Quinn criter.	19.39957
F-statistic	0.700601	Durbin-Watson stat	1.377118
Prob(F-statistic)	0.405015		

(a) Plotting of residuals and test of residuals

Figure 2



Residuals – periods of low volatility are followed by periods of low volatility and periods of high volatility are followed by periods of further high volatility, reflecting a ARCH/GARCH (1,1) model. The OLS estimation fails residual tests.

(b) Abbreviated residual test results are. Null hypotheses are:

- Homoskesdasticity Present
- Serial correlation absent
- Residuals distributed normally

Table 10
HETEROSKEDASTICITY TEST: WHITE
Obs R^2 13.50 Prob Chi^2 0.0012
Breusch-Godfrey Serial Correlation LM Test
Obs R^2 8.15 Prob. Chi^2 0.0170
Normality Test
Jarque- Bera: 89.33 Prob.: 0.000

Now to create a model, excluding VAR/VECM framework would involve first dealing with stationary FDI and FPI (statfpi and statfdi).

(a) Testing Heteroskedasticity in statfdi, statfpi and OLS regression estimation of statfpi and statfdi. Null hypothesis – ARCH effect absent

Table 11 STATFDI SHOWING ARCH EFFECT
Heteroskedasticity Test: ARCH
Obs R^2 5.083 Prob Chi^2 0.0242

Table 12 STATFDI SHOWING ARCH EFFECT
Heteroskedasticity Test: ARCH
Obs R^2 14.20 Prob Chi^2 0.0002

Regression of statfpi (dependent) and statfdi (independent)-OLS

Table 13

Table 13
REGRESSION OF STATFDI (DEPENDENT AND STATFDI (INDEPENDENT)-OLS

Dependent Variable: STATFPI
Method: Least Squares
Sample (adjusted): 2 84
Included observations: 83 after adjustments

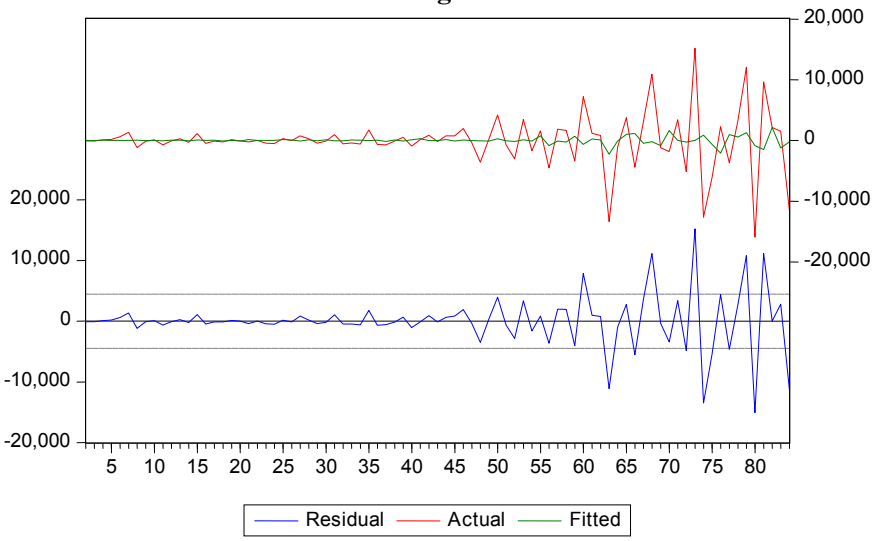
Variable	Coefficient	Std. Error	t-Statistic	Prob.
STATFDI	-0.349286	0.277817	-1.257250	0.2123
C	22.27715	490.3689	0.045429	0.9639

R-squared	0.019141	Mean dependent var	-4.807229
Adjusted R-squared	0.007032	S.D. dependent var	4478.935
S.E. of regression	4463.160	Akaike info criterion	19.66890
Sum squared resid	1.61E+09	Schwarz criterion	19.72719
Log likelihood	-814.2595	Hannan-Quinn criter.	19.69232
F-statistic	1.580677	Durbin-Watson stat	2.760732
Prob(F-statistic)	0.212276		

Note – DW stat reflects inconclusive autocorrelation.

(b) Residual diagnostics in OLS between statfpi and statfdi

Residual, actual and fitted graphs
Fig. 3



TEST FOR RESIDUALS
Null hypotheses are:

(a) Absence of ARCH effect (Heteroskedasticity) from residuals
(b) Residuals are not distributed multivariate normally.
(c) Absence of serial correlation from the residuals

Abbreviated results

Table 14
HETEROSKEDASTICITY: ARCH:
Obs R^2 = 17.45 Prob. Chi square(1) 0.00
Normality: Jarque Bera=58.72 Prob.=0.00
Autocorrelation present up to 36lags: Q stat=91.66 Prob. 0.00

All residual diagnostic tests failed.

ARCH/GARCH Model

(6) The graph of residuals indicates that periods of low volatility are followed by low volatility and periods of high volatility followed by high volatility. This clearly indicates presence of ARCH/GARCH effect. Multivariate ARCH/GARCH models (MGARCH) have been used extensively in modeling financial time series. Since this approach captures the effect on current volatility of both own innovation and lagged volatility shocks emanating from within a given market and cross innovation & volatility spillovers from interconnected markets; it permits a greater understanding of volatility and volatility persistence in these interconnected markets. It is within the context of this limited empirical work that the present study is undertaken.

It has been pointed in many studies existence of bi-directional causality between FII and stock market returns (mentioned in this paper). Studies by Gupta et al (2012) pointed strong causality running from FDI to stock market. The same has been supported by Ghosh (2005), Lin (2006), Adam & Tweneboah (2009) and Sayah et al (2010) in their studies. Hence in the model compounded return of stock market (R) is taken as the exogenous variable, to regress FDI and FPI model from stock returns; giving relationship between these two forms with impact of stock returns acting as the external moderating factor. Lag of stock returns is presumed to be one (Engle 1993). Closing value of quarter endings from September 1992 till June 2013 of Bombay Stock Exchange (BSE) index – BSE Sensex has been taken from website www.moneycontrol.com and used as such.

Table 15
QUARTERLY CLOSING BSE SENSEX

Quarter	Closing BSE
Sep-92	3294.42
Dec-92	2615.37
Mar-93	2280.52
Jun-93	2227.54
Sep-93	2709.64
Dec-93	3346.06
Mar-94	3778.99
June-94	4086.72
Sep-94	4281
Dec-94	3926.9
Mar-95	3260.96
June-95	3247.36
Sep-95	3493.21
Dec-95	3110.49
Mar-96	3366.61
June-96	3812.52
Sep-96	3239.48
Dec-96	3085.2
Mar-97	3360.89
June-97	4256.09
Sep-97	3902.03
Dec-97	3658.98
Mar-98	3892.75
June-98	3250.69
Sep-98	3102.29
Dec-98	3055.41
Mar-99	3739.96

June-99	4140.73
Sep-99	4764.42
Dec-99	5005.82
Mar-2000	5001.28
June-2000	4748.77
Sep-2000	4090.38
Dec-2000	3972.12
Mar-01	3604.38
June-01	3456.78
Sep-01	2811.6
Dec-01	3262.33
Mar-02	3469.35
June-02	3244.7
Sep-02	2991.36
Dec-02	3377.28
Mar-03	3048.72
June-03	3607.13
Sep-03	4453.24
Dec-03	5838.96
Mar-04	5590.6
June-04	4795.46
Sep-04	5583.61
Dec-04	6602.69
Mar-05	6492.82
June-05	7193.85
Sep-05	8634.48
Dec-05	9397.93
Mar-06	11279.96
June-06	10609.25
Sep-06	12454.42
Dec-06	13786.91
Mar-07	13072.1
June-07	14650.51
Sep-07	17291.1
Dec-07	20286.99
Mar-08	15644.44
June-08	13461.6
Sep-08	12860.43
Dec-08	9647.31
Mar-09	9708.5
June-09	14493.84

Sep-09	17126.84
Dec-09	17464.81
Mar-10	17527.77
June-10	17700.9
Sep-10	20069.12
Dec-10	20509.09
Mar-11	19445.22
June-11	18845.87
Sep-11	16453.76
Dec-11	15454.92
Mar-12	17404.2
June-12	17429.98
Sep-12	18762.74
Dec-12	19426.71
Mar-13	18835.77
June-13	19395.81

Normalized compounded stock market returns R is calculated as
$R = \text{lnclosingbse}_t - \text{lnclosingbse}_{t-1}$

Table 16

Table 16
MULTIVARIATE ARCH/GARCH (1,1) EFFECT BETWEEN STATFPI AND STATFDI WITH R AS VARIANCE REGRESSOI

Dependent Variable: STATFPI
Method: ML - ARCH (Marquardt) - Normal distribution
Sample (adjusted): 2 84
Included observations: 83 after adjustments
Failure to improve Likelihood after 191 iterations
Presample variance: backcast (parameter = 0.7)
GARCH = C(3) + C(4)*RESID(-1)^2 + C(5)*GARCH(-1) + C(6)*R

Variable	Coefficient	Std. Error	z-Statistic	Prob.
STATFDI	-0.636591	0.184126	-3.457358	0.0005
C	41.03520	93.47781	0.438983	0.6607
Variance Equation				
C	342129.9	342052.7	1.000225	0.3172

RESID(-1)^2	0.004633		0.002556	1.812569	0.0699
GARCH(-1)	1.128779		0.004340	260.1147	0.0000
R	-45489.60		42492.12	-1.070542	0.2844
R-squared	0.006190	Mean dependent var			-4.807229
Adjusted R-squared	-0.006079	S.D. dependent var			4478.935
S.E. of regression	4492.529	Akaike info criterion			17.90617
Sum squared resid	1.63E+09	Schwarz criterion			18.08102
Log likelihood	-737.1060	Hannan-Quinn criter.			17.97642
Durbin-Watson stat	2.832410				

Estimation Command:
==========
ARCH(BACKCAST=0.7,DERIV=AA) STATFPI STATFDI C @ R

Estimation Equation:
==========
STATFPI = C(1)*STATFDI + C(2)

GARCH = C(3) + C(4)*RESID(-1)^2 + C(5)*GARCH(-1) + C(6)*R

Substituted Coefficients:
==========
*STATFPI = -0.636590958955*STATFDI + 41.0351983346* (**Mean Equation)**

*GARCH = 342129.860985 + 0.00463313853943*RESID(-1)^2 + 1.12877858401*GARCH(-1) - 45489.6033359*R* (**Variance Equation)**

Here,

GARCH = variance of the residual (error term) derived from Mean Equation. Here it is current quarter's variance or volatility of STATFPI

GARCH (-1) = previous quarter's volatility or the GARCH term
RESID(-1)^2 = previous quarter's squared residual or ARCH term

TEST FOR RESIDUALS

The three tests have following null hypotheses

(a)Absence of ARCH effect (Heteroskedasticity) from residuals
(b) Residuals are not distributed multivariate normally.
(c) Absence of serial correlation from the residuals

Abbreviated results

Table 17 HETEROSKEDASTICITY: ARCH:
Obs R^2 = 0.28 Prob. Chi square(1) 0.60
Normality: Jarque Bera=1.71 Prob.=0.42
Autocorrelation absent up to 33 lags: Q stat=22.81 Prob. 0.908

From the above iterations following inferences can be made

1. GARCH term i.e. previous quarter's volatility is significant in influencing FPI, with positive coefficient; positive swing in FPI leads to higher FPI in next quarter and vice-versa. Even though ARCH is significant at 7%, this shows that preceding quarter's squared residual has impact on FPI. This implies persistence of the cause, for one quarter, which leads to variation of FPI from mean value. Thus it could be understood that (a) as momentum of swing/change in FPI (b) persistence of impact of cause of change in FPI, both influence subsequent quarter's FPI. This argument fits in well with the nature of portfolio investments.
2. FPI and FDI move in opposite direction. An examination of inflows in the study period shows that since December 2008 till June 2013, FPI and FDI have moved in diametrically opposite directions. FPI movements have been in consonance with global trends post 2008, wherein there were large withdrawals from India interspersed with large inflows probably on account of easy monetary policy followed in USA and other countries.
3. Significance of R is low and is perhaps confounding as literature suggests otherwise.

A probable cause could be that FPI shows stronger ARCH/GARCH relation with R as exogenous variable (as variance regressor) as discussed further.

Table 18
ARCH/GARCH (1,1) EFFECT STATFPI
WITH R AS VARIANCE REGRESSOR

Dependent Variable: STATFPI
Method: ML - ARCH (Marquardt) - Normal distribution
Sample (adjusted): 2 82
Included observations: 81 after adjustments
Failure to improve Likelihood after 203 iterations
Presample variance: backcast (parameter = 0.7)
GARCH = C(2) + C(3)*RESID(-1)^2 + C(4)*GARCH(-1) + C(5)*R

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	11.90864	72.77464	0.163637	0.8700

C	-37160.85	6133.805	-6.058369	0.0000
RESID(-1)^2	-0.039414	0.003939	-10.00516	0.0000
GARCH(-1)	1.157309	0.002604	444.4142	0.0000
R	810263.6	262381.2	3.088116	0.0020

R-squared	-0.000613	Mean dependent var	118.7580
Adjusted R-squared	-0.000613	S.D. dependent var	4341.465
S.E. of regression	4342.797	Akaike info criterion	17.67630
Sum squared resid	1.51E+09	Schwarz criterion	17.82411
Log likelihood	-710.8902	Hannan-Quinn criter.	17.73560
Durbin-Watson stat	2.790462		

Estimation Command:
==========
ARCH(BACKCAST=0.7,DERIV=AA) STATFPI C @ R

Estimation Equation:
==========
STATFPI = C(1)

GARCH = C(2) + C(3)*RESID(-1)^2 + C(4)*GARCH(-1) + C(5)*R

Substituted Coefficients:
==========
STATFPI = 11.90863524 (**Mean Equation)**

GARCH = -37160.8528443 - 0.0394141953453*RESID(-1)^2 + 1.15730944006*GARCH(-1) + 810263.60162*R (**Variance Equation)**

Here,

GARCH = variance of the residual (error term) derived from Mean Equation. Here it is current quarter's variance or volatility of STATFPI

GARCH (-1) = previous quarter's volatility or the GARCH term
RESID(-1)^2 = previous quarter's squared residual or ARCH term

TEST FOR RESIDUALS

Null hypotheses:

(a) Absence of ARCH effect (Heteroskedasticity) from residuals
(b) Residuals are not distributed multivariate normally.
(c) Absence of serial correlation from the residuals

Abbreviated results

Table 19

HETEROSKEDASTICITY: ARCH:
Obs R^2 = 0.25 Prob. Chi square(1) 0.62
Normality: Jarque Bera=0.18 Prob.=0.91
Autocorrelation absent up to 36 lags: Q stat=23.94 Prob. 0.94

Herein the variance equation, GARCH and ARCH terms are highly significant; also R is highly significant with high coefficient. Association of R with FPI is strong and well documented in literature and referred in this article. Significance of R is restricted to FPI only and was found to be absent in FDI.

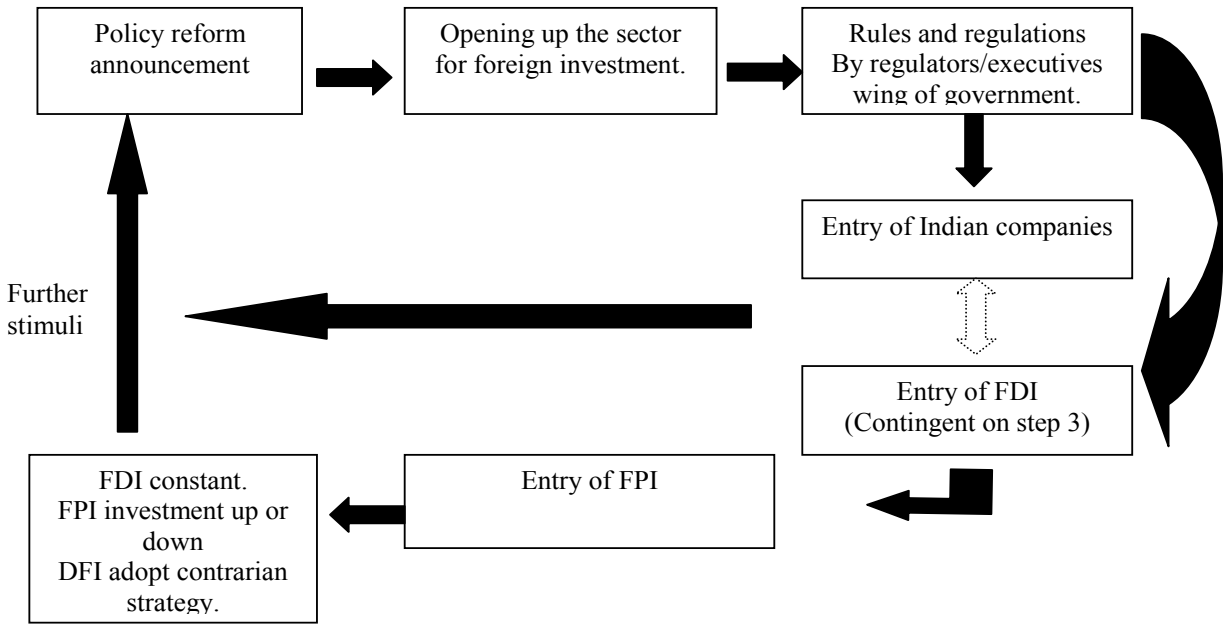
INTERPRETATION

1. *Ceteris Paribus*, FDI and FPI have a long run association with FDI being a probable cause of FPI, with some time lag.
2. In an economy, which has three distinct characteristics – developed capital markets, existence of both promoter and institution led companies and rule based company affairs management, *per se*, it becomes confounding. A more precise model would perhaps exchange rate variations and use of dummy variables for structural breaks to formulate a model.

CONCLUSION AND SUGGESTION

Entire gamut of FDI and FPI are a part of economic reforms initiated in India approximately twenty five years. FDI has become an important source of gross capital formation. In certain sectors MNCs dominate overwhelmingly. E.g., consumer white durables, processed food, passenger cars etc. Figure 4 gives a schematic overview of the linkage between FDI and FPI/FII in India. In the perspective of FDI and FPI; Domestic Financial Institutions (DFI) operating in financial markets have long been using a contrarian strategy visa-vies portfolio investors (Bose 2012).

Figure 4
Scheme of FDI and FPI/FII Linkage



India has had current account deficit (CAD/GDP) in the range of approx. 5% since 2011. This has been balanced mainly by FPI (ESI 2013-14). Overdependence on FPI can be risky as mentioned in studies referred in this study. FDI is stable and in India it has made remarkable impact on the Indian economy. With a market based economy (leaving aside certain sectors), FDI has spurred Indian companies to greater efficiency. Though sectoral limits are there in certain industries, however this has not deterred MNCs to invest and wait for further liberalization. FDI in service sector is highest because this sector grew fastest in last two decades and now accounts for approx. 65% of GDP.

Onset of FPI has led to greater attention by promoters to wealth creation and better treatment of minority shareholders. Post 1990s, Indian business laws are being harmonized with their Anglo-Saxon counterparts. Corporate governance norms have become rigorous and to some extent portfolio investors are indirectly responsible. It may take some time before FPIs are allowed to invest in commodity and foreign exchange markets. Sometimes government actions are more attuned for FPIs rather than FDI because of visibility of capital market indices.

An important lesson for Indian economic planners is that reforms must be pushed vigorously, so that Indian private sector can compete. Success of private Indian companies, sooner or later draws FDI. If integration of FDI in that sector is successful then FPI follows. The period 2009-2014, was characterized by financial scandals, policy paralysis, persistent high inflation, high bank rates, high commodity prices and high current deficit account (ESI 2012-13 and 2013-14). Portfolio investment was extremely volatile and reacted to global trends and profit booking on Indian bourses. Due to policy paralysis in economic matters, many large scale investments especially in infrastructure were held up. Private sector Indian companies in infrastructure either suffered losses or did not invest further. Matters were complicated by judicial and federal auditor's intervention. Confusion regarding tax policies made matters worse (these observations are from general newspaper readings between 2009 and 2014). It is the conclusion of authors that favorable and hassle free economic policy, which benefits domestic investors (and industries), will result in increased FDI, which after a lag of some time, will impact FPI (it is not necessary that in future lag would be 10-12 quarters). India as one of the emerging economies has sufficient depth and available investment opportunities for FDI in various sectors and capital market for FPIs. Portfolio investment will keep on increasing on account of carry over trade (in foreign currencies) followed by investments in countries like India to get higher returns. For quite some time to come, CAD will be balanced by capital/portfolio flows. Needless to mention, howsoever contradictory to the discourse of FDI and FPI, returns from capital markets do matter, in case of both forms of foreign investments. The model and available literature substantiates it.

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KEEPING OPTONS ALIVE BY REPAIRING DAMAGED RELATIONSHIPS IN INTERNATIONAL JOINT VENTURES

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ABSTRACT

Why are some damaged international joint venture relationships repaired? Under what conditions does such a repair make sense? This article addresses these two questions by drawing on real options theory. Not all troubled relationships are terminated immediately; instead, many are repaired and retained for a prolonged time. Counter-intuitively, we make the case that that repairing and retaining of troubled relationships may be a reflection of their interests in keeping real options alive. They remain in collaboration until a future decision point comes and a "go" or "not go" decision can be made.

Key Words: international joint ventures, damaged relationships, real options perspective

INTRODUCTION

Firms use international joint ventures (IJVs) for the purpose of technology/resource exploitation or exploration, economies of scale or scope, market adaptation, or risk diversification (Cuypers & Martin, 2010; Hennart, 1988; Parkhe, 1991; Hill & Hellriegel, 1994; Hitt, Dacin, Levitas, Arregle & Borza, 2000; Inkpen & Beamish, 1997; Tong, Reuer & Peng, 2008). Alternatively, IJVs carry managerial costs caused by complexities and challenges associated with joint investments, coordination or control, multiple agencies, or competition and conflict (Barden, Steensma & Lyles, 2005; Das & Teng, 2000; Hambrick, Li, Xin & Tsui, 2001; Inkpen & Ross, 2001; Reuer & Leiblein, 2000; Tong & Reuer, 2007).

It is notable that IJVs are commonly characterized by their inherent instability that eventually leads to a high failure rate (Das & Teng, 2000; Dhanaraj & Beamish, 2004; Hennart et al., 1998; Park & Ungson, 1997). Just as few human marriages are truly an ideal picture of two individuals living "happily ever after," conflicts and relationship damages are common in alliance relationships. Relevantly, Eaves, Weiss, and Visioni (2003) analyzed a three-year cross-industry study of alliance relationship management and found that poor or damaged relationships accounted for fifty-two percent of all broken joint ventures (JVs). For this reason, IJV instability or termination is popularly studied (e.g. Das & Teng, 2000; Hennart et al., 1998; Yan & Zeng, 1999).

Just as few individuals would want to divorce their spouses when relationship difficulties initially arise, few managers terminate their alliances right away when relationship damages occur–if they do, they would be regarded as reckless. However, over the long run, we do know that a large percentage of individuals and firms terminate their relationships. Therefore, it is certain that many firms remain in a difficult collaboration for some time, and that some eventually terminate their relationships and presumably others repair their damages and move on with relationships that are more functioning. Repairing damaged relationship in the context of strategic alliances can be defined as significant efforts to save and improve a troubled relationship that has a high likelihood of failure and termination in the absence of serious efforts to save it (Peng & Shenkar, 2002).

Therefore, why do firms choose to remain in a difficult collaboration? While motivations to repair damaged IJV relationships range from an interest in deriving economic value from the collaboration to a desire to protect corporate reputation as a good partner, one potential motivation that has not been discussed before is that partners may be interested in preserving the real option value of their IJV relationships. IJVs have long been conceptualized as real options (Cuypers and Martin 2010, Kogut 1991, Reuer and Leiblen 2000, Tong et al. 2008). Real option perspective sheds new light on how firms deal with IJV termination as well as why firms choose IJVs over other governance modes. Real options view argues that entering into uncertain markets via JVs is like buying call options (Chi and McGuire 1996, Cuypers and Martin 2010, Folta 1998, Kogut 1991, Tong et al. 2008). As a real option investment, IJVs carry the benefits of preserving upside potentials and curtailing downside risks under conditions of high uncertainty (Dixit and Pindyck 1994, Folta and Miller 2002, Kumar 2005, Pindyck 1991, Reuer and Leiblein 2000, Tong et al. 2008).

Consequently, we advance the argument that repairing damaged relationships represents partners' efforts to keep real options alive. This argument builds on a straightforward but somewhat counterintuitive line of reasoning: to the extent that IJVs represent any real option value, prematurely closing or ending any IJV relationships due to relationship conflicts will immediately obliterate any value present or future of these real options. In other words, even though divesting an IJV troubled by damaged relationships among collaborating firms might be a better idea than keeping it viable in the short-term, holding onto the IJV can also be a strategic consideration.

Having decided to remain in a difficult collaboration, next, managers confront a challenge: How? The literature is sparse on this issue. Some studies focus on the downward spiral toward eventual demise of the relationship (e.g. Peng and Shenkar 2002), but few scholars have grappled with the challenge that managers in a difficult collaboration confront: they want to make their relationship work but are also prepared to terminate it should it become necessary at a future point in time. This, of course, is the "strategy process" or "implementation" perspective, which is largely missing not only in the alliance literature, but also in the strategy and management literature in general.

Our purpose in this paper is to diagnose managerially the conditions under which inter-organizational relationships are damaged. We intend to examine how JV partners should manage nontrivial downside risks and make their relationships work, and how to repair damaged

relationships to obtain their expected real options values. Since almost all real options research focuses on the beginning and ending of real options (establishing and terminating or acquiring JVs in this context), we add to this literature by focusing on how firms may add to, or at a minimum, retain the values of their real options during the lifespan of their inter-organizational relationships.

Overall, by focusing on the "why" and "how to" aspects of the decision and efforts to remain in a difficult collaboration, we address a key question: how to keep the real options "real" when encountering relationship difficulties. While we intend to contribute primarily to the strategic alliance literature, our process and implementation perspective also is an endeavor to contribute to real options management, because existing work suggests that there is a major gap between the theoretically presumed benefits of having real options such as JVs (Kogut 1991) and the actual realization of such benefits (Reuer and Leiblein 2000).

Finally, implications for real options theory, the theory of strategic alliances, and management practice are all addressed.

LITERATURE REVIEW AND PROPOSITIONS

Problems and Termination of International Joint Ventures

It is commonly agreed that JVs are not goals in themselves, but a contractual partnership designed to achieve strategic goals (Inkpen and Ross 2001). Unlike other types of real options investments, JVs have the unique characteristics of doing business jointly with other firms; thus, are inherently embedded with high transaction costs (Gulati and Singh 1998, Reuer and Leiblein 2000, Tong et al. 2008). Cultural adaptation to different customs, languages, or bargaining styles requires time for mutual contacts or learning to occur. It is also necessary to adapt to different organizational policies and practices, requiring additional time and effort. These different cultural and organizational problems have been considered as primary factors contributing to alliance instability and termination (Parkhe 1993, Serapio and Cascio 1996).

Low credibility among IJV partners delays learning and hinders the accomplishment of the alliance goals (Inkpen and Beamish 1997). When two different organizations form an alliance, trust is a basic issue directly related to the conflicts, stability, and outcomes between the two parties (Boersma et al. 2003, Brouthers and Bamossy 2006, Gill and Butler 2003, Madhok 2006, Parkhe 1993, Thuy and Quang 2005). Violating the contract will bring about conflict in the alliance relationship, resulting in decreased alliance credibility since alliance credibility depends on sincerely executing the contract by both parties. There have been cases where an alliance was ended because of a partner’s violation of the contract (Parkhe 1993, Serapio and Cascio 1996).

For those aforementioned reasons, JVs have been noted to have inherent instability as is reflected by a high propensity for short life or failure (Das and Teng 2002, Hennart et al. 1998, Hill et al. 1990, Kogut 1989, Park and Ungson 1997). The poor performance and low survival rate of many JVs raise the issues of whether many JVs are high-risk projects and whether they are being managed timely (Reuer and Leiblein 2000). That is, notwithstanding these option value-adding characteristics of JVs under high exogenous uncertainty, downside losses or

exchange coordination costs could be nontrivial, or it will be difficult to capture the value latent in these ventures (Gulati and Singh 1998, Lyles and Salks 1996, Peng 2003, Tong et al. 2008, Steensma and Lyles 2000), leading to imperfect claims on emerging opportunities (Reuer and Leiblein 2000).

Traditional Perspectives on IJV Termination

It is commonly agreed that IJVs carry organizational complexity and inherent instability (Chung and Beamish 2010, Hennart et al. 1998, Zaheer and Mosakowski, 1997). Regarding this issue, Yoshino and Rangan (1994) argued that relational conflicts among IJV partners are affected by partner opportunism, asset complementarities, learning, trust between partners, and competitive conditions. Kogut (1989) asserted that an alliance closedown increases as the economic motive gap between partner increases and the agreeability between partner declines. Similarly, Das and Teng (2000) proposed that relational instability in IJVs is generated by an imbalance between competition and cooperation, rigidity and flexibility, or short- and long-term orientation. Conflict within a joint business causes unnecessary costs that negatively affect an IJV's performance and stability.

Diverse perspectives exist in the extant literature to explain this IJV instability or termination. For instance, bargaining power perspective explains that power asymmetry associated with shared ownership or contributing resources leads to IJV instability (Choi and Beamish 2004, Chung and Beamish 2010, Inkpen and Beamish 1997, Pearce 1997, Steensma et al. 2008). Organizational learning perspective says that slow or hindered learning, or asymmetry in the learning race accelerate IJV instability or termination (Kumar and Lti 1998, Inkpen and Beamish 1997, Parkhe 1991, Yan and Zeng 1999). The completion of intended learning or the acquisition of necessary resources or capabilities trigger divestment (Inkpen and Beamish 1997, Makhija and Ganesh 1997). In contrast, slow or poor learning, difficult access to necessary resources, and no gain from partners can be catalysts for divestment (Chi 2000, Parkhe 1991).

The transaction cost perspective suggests that partners' opportunistic behaviors associated with moral hazards or hold-up risks increases transaction costs and relational conflicts, thus, IJV termination (Das 2005, Das and Kumar 2009, Das and Rahman 2010, Das and Rahman 2009, Gulati and Singh 1998, Kale et al. 2000, Parkhe 1991, Pearce 1997, Shan 1991). In an IJV, more than two companies with different nationalities being involved increase the difficulty of controlling partner behaviors (Das and Kumar 2009, Das and Rahman 2010, Kale et al. 2000, Zhang and Li 2001). A firm is concerned about its ability to capture a fair share of the rents from the alliance in which it is engaged. That is a kind of appropriation concern due to uncertainties associated with future specifications, cost uncertainties, and problems in observing partner contributions. If uncertainty becomes higher due to *ex post* opportunism of partners and thus, difficulty in valuation of a partner becomes intense, firms may be exposed to the risk of adverse selection (Jap and Anderson 2004, Kale et al. 2000, Madhok 1995, Parkhe 1993, Serapio and Cascio 1996, Park and Ungson 2001, Zhang and Li 2001).

The bargaining power perspective argues that incomplete claims on joint businesses carry relational instability since partnering firms are not always agreeable; thus, they are in a game situation (Julian 2005, McGinn and Keros 2002, Parkhe 1993, Pearce 1997). Under that situation, IJV partners attempt to exert political or bargaining influence to maximize their own benefits, sometimes at the sacrifice of other firms' interests (Inkpen and Beamish 1997, Parkhe 1991, Pearce 1997). Firms engaged in IJVs make relative contributions to joint businesses based upon their heterogeneous resources including technology, local knowledge, and government connections, leading to asymmetric bargaining power and relational changes including termination (Blodgett 1991, 1992, Chung and Beamish 2010, Gomes-casseress 1988, Inkpen and Beamish 1997). For example, the initial distribution of equity ownership reflects the relative bargaining power among the participating firms, and affects the preferred level of ownership including IJV termination via buyouts or sell offs, with regard to changing bargaining power over time (Blogett 1991, 1992, Chung and Beamish 2010, Hennart et al. 1999, Steensma et al. 2008).

Real Options Perspective on IJV Termination

Real Options Value of JVs

Real options view suggests that entering uncertain markets through JVs is like buying call options because of the benefits of preserving upside potentials and curving downside risks under the conditions of high uncertainty associated with changes in exchange rates, institutional change, technology, or market (Chi 2000, Chi and McGuire 1996, Cuypers and Martin 2010, Dixit and Pindyck 1994, Folta 1998, Kumar 2005, Tong et al. 2008). Under high uncertainty, a firm can make flexible decisions by investing in a relatively lower level than wholly owned subsidiaries (WOSs) or outright acquisition (Folta 1998, Kumar 2005, Reuer and Leiblein 2000). Because initial investment has the characteristic of sunk cost, which is irreversible once made, alliance investment can give firms the advantage of reducing potential downside risks (Cuypers and Martin 2010, Folta 1998, Tong et al. 2008).

Relatively low involvements in an uncertain environment provide firms with the flexibility to make subsequent decisions with a minimum risk. Firms engaged in IJVs retain the real option value by waiting and seeing until uncertainty associated with the initial investment becomes reduced (Cuypers and Martin 2010, Dixit and Pindyck 1994, McDonald and Siegel 1986, Pindyck 1991, Reuer and Leiblein 2000, Tong et al. 2008, Trigeorgis 1996). An IJV is a real options investment that allows firms to take sequential investment processes including waiting, acquiring, or divesting according to the evolution of market conditions (Bowman and Hurry 1993, Folta 1998, Folta and Miller 2002, Kogut 1991, Kogut and Kulatilaka 2001, Kumar 2005).

Firm's Choice to Remain in Troubled Collaborations

It is commonly expected that a once-damaged relationship cannot be repaired easily; the relationship is finally dissolved in most of cases (Peng and Shenkar 2002). The prior literature on IJV instability/termination argued that inherently unstable characteristics of alliances could initiate some relational conflict, which might cause relational damage and eventually lead to relational termination. Slow or poor learning, difficult access to necessary resources, or no gain from partners can be catalysts for divestment (Chi 2000, Parkhe 1991). Additionally, there are also difficulties in actual management of the partnership due to high transaction or management costs (Gomes-Casseress 1987, Hill, Hwang, and Kim 1990). In other cases, firms end their present alliances to seek more direct and full control of their solely owned business and escape impaired alliance relationships.

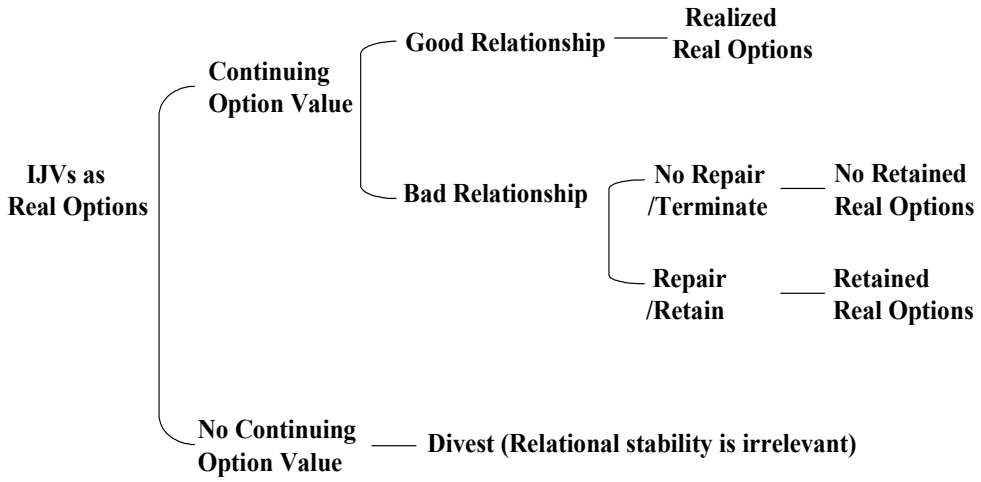
This suggests that valuable real options investments such as IJVs are also costly to create and manage. Although IJVs in highly uncertain situations may have significant potential real option value, if the cost of creating and managing these IJVs is too high, they will not be pursued. Alternatively, if the cost is low, IJVs will be pursued to attain intended objectives. Conflict and the following damaged relationship associated with its unstable characteristics are predicted to affect the destiny of IJVs as a real option investment. To put it another way, even when exogenous uncertainty is not resolved or new opportunities do not arise and thus real options value is still alive, a difficult relationship may set in motion premature or unfavorable termination of the present relationship.

If relational difficulty is serious and termination is at hand, firms can no longer retain this options value. Similarly, Tong et al. (2008) argued that although JVs can provide growth options in theory, their ongoing operations may entail nontrivial transaction costs that make it difficult to capture the value of the growth options latent in these ventures (Lyles and Salk 1996, Peng 2003, Steensma and Lyles 2000).

Proposition 1: The value of option embedded in IJVs will be offset by downside costs associated with relational conflict, behavioral opportunism, or asymmetry in power or learning. This will lead to early/unfavorable termination and eventually undermine potential high payoff embedded in the option to hold.

IJVs are usually expected to undergo some changes in their inter-firm relationship (Arino and Reuer 2004). In each phase of change in Figure 1, managers must consider two critical questions: (1) Is this current situation favorable to ongoing business? (2) How does a new decision affect the value of the firm? Whether managers find positive or negative answers to these questions, they will need to make some optimal decisions. These choices embrace altering its strategic directions, renegotiating its contract such as reconfiguring its ownership and/or management structures, even including alliance termination (Yan and Zeng 1999). Repairing the damaged relationship to retain the present IJV is one of them.

Real Option Value and Relational Changes in IJVs



Keeping Real Options Alive by Repairing Damaged IJV Relationships

However, in reality, not all troubled relationships are terminated. Thus, the question of why firms choose to remain in difficult relationships remains to be answered. To begin with, there must be a continuing need for JVs to make a prolonged relationship sensible for the partners. It means that firms must consider the value of waiting for farsighted purpose; retaining the impaired relationship can be understood in this context. Specifically, firms want to take advantage of flexibility by repairing and retaining their relationships as long as real options values remain positive with exogenous uncertainty unsolved. Following this logic, even in the event of a damaged relationship, firms have incentives to repair and maintain their present relationship pending its full realization in a more favorable situation, rather than terminating it immediately.

This indicates that firms must control other factors influencing alliance longevity and relational instability, if they prefer to retain these real options values. Therefore, firms should make the auxiliary decisions required to protect or enhance these values over time (Kester 1984). Since flexibility is still crucial to focal firms, firms have a motivation to normalize present joint business relationships by repairing the damage until they can exploit their real options fully in a more favorable situation. Relevantly, Kumar (2005) argued that the forgone flexibility due to termination is likely to be more valuable in uncertain target markets than in mature ones. Likewise, managers with real option thinking are expected to weigh the risk of losing flexibility in a damaged relationship, which is not easy to recover to the pre-damaged condition.

Additional benefits of repairing damaged relationships should be mentioned further. Relational losers are also apt to face problems in managing global strategy. As stated earlier, IJVs are evaluated as an organizational mode for a platform for future investment. That is why firms take advantage of IJVs to learn about partners and the local market to adapt to a new or

unfamiliar market. In this way, IJVs can act as important strategic tools for global strategies of the parent firms. If firms untimely or unfavorably lose this strategic relationship, they will have the risk of losing not only the initial investment but also potential opportunities. Put differently, they may lose earlier-invested time and effort, which could have been used in other activities, and some opportunities that the present cooperative business may create in the future. JV partners may want to keep a relationship in good stead to achieve their intended objectives. The objectives could be completing their global strategy by making use of IJVs, or acquiring advanced technology or local knowledge. Firms may need time until their intended objective is accomplished. Therefore, this monitoring and repairing relational damage can give the firms the opportunity of continued learning (Kumar 2005).

It already has been stated that firms in IJVs are commonly expected to face conflicts and subsequent instability. To overcome this difficulty of joint business, firms must learn more about international business, partners, and the market by preserving the present relationship rather than dissolving it during a relationship crisis. It becomes more meaningful when firms expect new opportunities including favorable environmental changes. In China, for example, IJVs with local firms give MNCs an opportunity to successfully exploit the prominent large market specifically at the time of more liberalization or deregulation of foreign investment. In that case, MNCs would enjoy "preemptive advantage" compared to later entrants or earlier terminated firms (Peng 2003).

Damaged but not repaired relationships can be a serious problem in terms of corporate reputation. Corporate reputation is considered one of the most important relational assets that MNCs have to manage (Fombrun, Gardberg, and Barnett, 2000). It can build a platform from which future opportunities may spring and serves as a buffer against loss (Fombrun et al. 2000). Relevantly, investment in a relationship, including repairing a damaged relationship with other firms, can increase the real options available to a company, deriving value from indirectly creating potential for future gain such as R&D investment (Fombrun et al. 2000). Alternatively, an unpleasant or unfavorable ending, and thus damaged reputation, may negatively affect future business with other firms. Therefore, a JV relationship is worthy to be managed carefully considering that improved reputation could be a compound option, in other words, a good asset for subsequent IJVs (Janney and Dess 2004).

Proposition 2: Certain JV partners prefer to remain in a relationship in that a repaired relationship can retain present options and create new options value associated with reputational effect in the future investment opportunities with other firms.

Managing Damaged IJV Relationship

There are several ways firms could use to manage damaged IJV relationships. The first is to structure the inter-organizational relationship. This optimal structuring issue also covers the appropriate safeguarding mechanisms that enlarge the shadow of the future (Jap and Anderson 2003, Parkhe 1993). As in the theoretic game situation (Chi and McGuire 1996, Julian 2005, Parkhe 1993), each partner is likely to be influenced by the behaviors of other partners. In

situations where there is high behavioral uncertainty and difficulty in the evaluation of partners, firms in JVs are exposed to appropriation concerns, hold-up risks, and adverse selections (Gulati and Singh 1998); this is a dark side of inter-organizational relationships (Jap and Anderson 2003). These transaction cost factors associated with *ex post* opportunism may diminish the control and flexibility over resources (Pfeffer and Salancik 1978). Setting *ex post* deterrents to the *ex post* opportunism embedded in JVs has managerial meaning in this context, such as contractual safeguards or stipulations in a formal partnership agreement (Parkhe 1993).

Optimally-structuring inter-organizational relationships in JVs is not a one-time issue since JVs are usually experiencing several phases of the relationship, relevantly re-contracting and adjusting according to environmental and relational changes (Arino and Reuer 2004, Chung and Beamish 2010, Ernst and Bamford 2005, Reuer et al. 2002). Contractual alterations, major changes in the joint board or committee overseeing the alliance, or the introduction or formalization of monitoring mechanisms could be taking place (Reuer et al. 2002). By reminding partners to provide direction for the activities and efforts of the dyad, firms in JVs can reduce the risk of shirking and moral hazards, particularly in the event of agency problems (Jap and Anderson 2003).

The second way of repairing a damaged relationship is building intelligent flexibility. IJV partners monitor the behavioral dynamics of the JV and early detection of marital distress. In addition, partners need to be prepared for a "midlife" crisis (Peng and Shenkar 2002). The process does not necessarily have to lead to eventual termination, as there are opportunities for reconciliation during each phase. Yet, the dissolution process itself, once in motion, tends to take on a life of its own, and the chances for reconciliation significantly diminish over time (Peng and Shenkar 2002). It means that the earlier a partner catches a symptom of the deteriorating relationship, the higher probability it will have to recover. In addition, investing in a relationship is necessary in that IJVs require continual nurturing. Like married couples working hard to invigorate their relationships (Gray 1992), alliance partners also need to improve the likelihood of achieving high performance while preserving the relationship. Otherwise, once one party starts to waver and the dissolution process is in motion, it will be very difficult to turn back.

In that sense, building "intelligent flexibility" into the contract and the terminology and phraseology of the contract are also very important. It is imperative to take the steps necessary to ensure that all parties have a common understanding of the agreement (Serapio and Cascio 1997). However, alliance partners should not expect to cover everything in the contract that governs the alliance. For example, although it is impossible to derive a specific economic value for an asset in a future period, both parties may agree on a method to be used in valuing the asset at the appropriate time.

It is important to have a formal specification of rules and guidelines that clarify important issues such as financial procedure and technology sharing for those working within the alliance. However, because the market and environmental conditions may change, partners must be adaptable. Although a contract may legally bind partners, an adherence to a rigid agreement may hamper necessary adaptations (Shenkar and Luo 2002). Preparing an exit provision for the timing and asset allocation in the event of an exit would be a prime example (Das and Teng 1998).

The third way of relationship repairing is investing in relational assets. To promote learning effectively, overcoming cultural difference among partners is urgently necessary. Poor communication is the primary barrier to effective learning. Shenkar and Luo (2004, 331) stated, "because many conflicts stem from unclear or misread signals between partners, it is important to jointly develop a set of operating principles for the alliance and establish effective communication systems." Taking advantage of key personnel contacts, exchange problems, or mediating personnel (e.g. previous partners) would be helpful (Shenkar and Luo 2004). For example, the communications in Fuji Xerox includes a co-destiny task force, presidential summit meetings, functional meetings, resident directors meetings, and personal exchanges (Gomes-casseress 1996). These communication channels bridge the differences between Fuji and Xerox. Regular meetings are an important step in jointly setting principles for alliance operations. These meetings should establish the facts of any matter at issue, and record the discussion and solutions proposed.

JVs require continuous nurturing, similar to married couples working hard to invigorate their relationships (Peng and Shenkar 2002). Partners also must improve the likelihood of achieving high performance while preserving the relationship. Otherwise, once one party begins to waver and the dissolution process is in motion, it will be very difficult to turn back. In this context, investing in relationships can be another real option.

Finally, firms could promote communication and learning in their JVS. To promote learning effectively, overcoming cultural difference among partners is urgently necessary. Bad communication is the main barrier to effective learning. There can be effective ways to enhance effective communication and learning. Sympathetic listening reduces communication noise, develops various communication channels, meta-communication (Dindia and Baxter 1987), and structuring emotional conversations are in effect. Williams (2005) recommends that if the victim (a) is willing to put in the time and energy, (b) perceives the potential value derived from the relationship, and (c) does not have better options, the following steps will help violators repair the trust that they have damaged: (1) acknowledge that a violation of trust has occurred; (2) determine, from the victim's standpoint, the exact nature of the violation and what event caused it; (3) admit that the event destroyed trust; (4) accept responsibility for the violation, debating or denying responsibility impedes repair; and (5) offer to make reparation.

Proposition 3: Damaged IJV relationship will be repaired by promoted learning, enhanced safeguarding, and/or intelligent flexibility. That will allow IJV firms to achieve their intended objectives by retaining flexibility embedded in the option to hold.

One Anecdotal Evidence: GM-Daewoo IJV[1]

In 1984, GM and Daewoo formed a 50:50 JV to produce a consumer vehicle, 'Pontiac Lemans.' GM, the largest American automaker, intended to exploit relatively advanced manufacturing infrastructures and skilled workers of South Korea compared to those of other Asian countries. GM also planned to explore other Asian markets including China based on its platform investments in Korea and with Daewoo. Daewoo, the third largest automaker in Korea at that time intended to learn advanced technologies from GM and moving toward the European

market by taking advantage of GM's global network. From their original intent, this IJV was considered an option for the two firms since their joint business carried future decision rights and follow-on claims on tentatively subsequent investments in other countries.

However, this joint business had been seriously challenged by increasing wages of Korean workers, poor quality of the Lemans, and plummeting sales. Each company blamed the other regarding these unexpected and poor outcomes. For instance, Daewoo attributed its struggling JV to GM's poor marketing and blocking Daewoo's sales to Eastern Europe. Daewoo also tried to develop its own model. From the two firm's standpoints, their IJV partner committed appropriation risk (i.e. partner firms intend to take more benefits from joint business than deserved), moral hazard (i.e., partner firms do not do what they are supposed to do), or adverse selection (i.e., partner firms turn out to be a sour lemon). For these reasons, the relationship between the two companies became damaged. What made their IJV relationship worse was that their damaged relationship went public. If problems inside an IJV are known to the outside, the problems might be out of the IJV firms' hands. Eventually, due to these relational conflicts between the two companies, their first IJV was terminated in 1992 when GM withdrew its investment from Korea.

Interestingly enough, in 2001 GM and Daewoo reformed another IJV. The reason was that GM still thought the Korean market and Korean partner were attractive for testing the waters in Asian markets. Daewoo needed GM's financial support and car models to continue its automobile business after its parent firm, Daewoo group, collapsed during the Asian financial crisis in the late 1990s. Since then, the two firms have produced new models and made profits while repairing the damaged relationships they had experienced in their first IJV. In the second IJV, for instance, the two firms made an adjustment in their ownership stake. Specifically, GM has taken the majority ownership and led the joint business for effective learning and management. Referring to relational failures in their first IJV, the two firms have renewed their contractual specifications regarding production, sales, and labor unions. They also facilitated exchange training programs among key personnel to overcome the differences in corporate culture and management practices.

From their efforts, it can be interpreted that the two companies did not want to eliminate potential real options value embedded in their IJVs and thus resumed their joint business with their damaged relationship repaired. Recently, their second IJV is at risk of another damaged relationship after GM's headquarters in the US went bankrupt following the economic downturn in late 2000 and GM laid off two Korean CEOs without prior notice in 2009. GM might shrink its investment in Korea. How the relationships in this second IJV are going to unfold in an uncertain future is again attracting public attention.

DISCUSSION

Contribution and Implication

Overall, this article departs from the existing literature in three significant ways. First, we endeavor to contribute to the IJV literature by articulating a crucial yet unexplored rationale

behind the decision to repair damaged relationships. Second, given that almost all real options research focuses on the beginning and ending of real options (that is, establishing and terminating/acquiring IJVs in this context), we add to this literature by focusing on how firms may add to or at least retain values of their real options during the lifespan of their IJVs. Finally, in light of the strong slant toward "strategy formulation" behind much real options research (i.e., formulating an IJV strategy in search of real options values), this article adds a much needed "strategy implementation" perspective by showcasing how real options values are derived and maintained through a series of actions to repair damaged relationships. For instance, some JV contracts contain an explicit option to increase the stake of one of the parents. However, in the case of a partner's contract violation such as purchasing shares of another partner or selling its shares to a third partner, the option value can deteriorate. In that context, JV participants need to repair any relevant damage by renegotiating the contract.

This study also contributes to relevant arguments regarding IJV instability/termination by linking it to the real options argument. Previously, these two research streams existed separately: instability literature focuses on the relational problems associated with a partner or internal uncertainty, and the real options literature focusing on the real options value associated with external uncertainty. However, in JVs, firms must consider both issues at the same time since more than one firm is involved in these joint businesses. This study concerns the effect of an alliance's inherent instability on the flexibility of JVs as real options in generating potential conflict between two contrasting characteristics. Other researchers have concentrated on relational instability and related costs, increasing or reducing commitment to create control or initiate divestment. Meanwhile, real options theorists are interested in maintaining flexibility. Examining the issue of repairing damaged IJV relationships from the real options perspective is one way to integrate or compare these two perspectives. Considering that once a relationship is damaged it cannot be restored easily, this study explored the situations why partners recover from relational crisis and when repair is reasonable by considering other values and costs not discussed a great deal early on in JV relationships. In that it has a rationale of the value of "delaying or waiting," we referred to real options theory to explain the repairing of damaged relationships. Likewise, real options theory is expected to apply to some prolonged situations.

Limitations and Future Directions

Despite these contributions, this article is not free from limitations. Though this study provides some testable propositions, the main arguments and propositions have not been supported fully in empirical works. To overcome this shortcoming, case studies would be supplemented where JV partners actually repaired their damaged relationship and enjoyed intended real options values. Additionally, it would be valuable to track the processes of damaging, repairing, and terminating in some real cases. In the process, it will be helpful to examine relevant real options values, relational difficulties, and any relationship between them. How JV partners can repair relationships once they show signs of decay will be a meaningful research question. Relevantly, it is valuable to draw sources of conflict in damaged relationships that are more specific and then propose some mechanisms to repair these relationships. As for

the ways to resolve conflicts, it is also desirable to trace the deteriorating process of the relationship and suggest conflict resolution mechanisms phase by phase as in the article by Peng and Shenkar (2002). These will be a meaningful effort to reveal the way to return to a normal relationship and thus, enjoy successful cooperation in JVs.

CONCLUSIONS

By comparing intended objectives as a real option with actual relationship difficulty as a transitional form, this paper proposed that a JV as a real option should be affected by its inherent instability. Therefore, the actual realization of real options value embedded in JVs may be available under relational stability. This is because the value of the firms in JVs is attributed to options value and relational stability at the same time. Regarding when repair is reasonable, benefits of remaining should enable focal firms to keep present and/or future real options. Finally, this paper suggested how firms manage downside risks to obtain their intended flexibility through JVs. Addressing actual management costs associated with alliance instability would be expected to complement previous literature on the real option theory and alliance management with more consideration.

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ENDNOTES

1 The main information regarding this case is excerpted from Peng's (2009) book, 'Global Business.'

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CORPORATE PREPARATION FOR THE CROSS-CULTURAL ADAPTATION EXPERIENCE OF THE ACCOMPANYING EXPATRIATE SPOUSE

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ABSTRACT

Scholars have long concurred that the cross-cultural adaptation experience of an expatriate employee will have a significant impact on the overall success or failure of an international assignment. While there has been discussion in the literature of the impact of the cultural adaptation of the accompanying expatriate spouse on the assignment success, little extant literature has systematically applied existing adaptation theory to consider how companies can provide support programs to aid in this journey of spousal cultural adaptation. In this paper, the author argues through the application of Social Learning Theory that the sponsoring organization can help prepare the accompanying expatriate spouse with targeted programs that aid in anticipatory cultural adjustments.

INTRODUCTION

Corporate globalization has created the need for internationally mobile employees to act as emissaries of their corporations in far-flung locations. By placing expatriates in international work roles, companies have created the necessity to understand how best to prepare these individuals and their accompanying families for the culture shock of integrating into a new environment. Expatriates are typically being introduced to a completely new set of cultural mores and experiences and therefore have little knowledge of how to behave and interact effectively with their host culture (Harvey & Moeller, 2009). Inappropriate behavior can have negative consequences for the corporation in the form of hampered client relationships, missed opportunities, and a diminished company reputation.

The typical overseas assignment usually sees a male employee relocating, bringing with him his wife and children (Brookfield GRS, 2010; Haslberger, 2010). The expatriate wife is known as the accompanying (or trailing) spouse, as she gives up her home, social network, and perhaps career to follow the interests of her husband's career. Studies have shown that the acculturation of the family unit (Harvey, Napier, & Moeller, 2009), and particularly the accompanying spouse (Kupka & Cathro, 2007; Lauring & Selmer, 2010), has a marked effect on the overall success of the overseas assignment.

As expatriates are often assigned to a location that is culturally disparate from their home country, both the expatriate and the expatriate family unit are confronted with an alien culture, necessitating the need for the assistance of both formal and informal support systems to aid in the acculturation process. With the expatriate spending the bulk of their time occupied with work concerns, spearheading the family's cultural adjustment is often left to the accompanying spouse (Kupka & Cathro, 2007). If the spouse is not progressing towards successful acculturation themselves, they will be ineffective in both assisting with other family members' adjustment as

well acting as a positive influence for the employee (Bikos et al., 2007). If the spouse is not a positive influence for the employee, this can compromise the success of the assignment, which has ramifications not only for the expatriate family (Van Der Zee, Ali, & Haaksma, 2007), but also for the sponsoring organization (Osman-Gani & Rockstuhl, 2008).

As the process of globalization and the internationalization of business becomes a more regular feature of professional and managerial life, an understanding of the impact of living and working in an alien culture becomes all the more critical. The construct of cross-cultural adaptation has been well-researched and promulgated in the past three decades. From history books, one can glean how conquerors of different lands have imposed their cultural background on their conquests because of their refusal to adapt to the culture of the natives. Therefore, the need to fully understand the process of cross-cultural adaptation is critical to ensuring the personal and professional success of corporate expatriate assignments.

While past research acknowledges that globalization has required multinational corporations to improve their global human resource systems, most have failed to do just that (Puck, Kittler, & Wright, 2008). Many organizations are still insensitive to the effect of family issues on expatriate assignments, resulting in increased stress for the families making involuntary relocations without adequate support from sponsoring organizations (Harvey et al., 2009).

This repeated and admitted failure by organizations to successfully execute expatriate policies in the areas of selection, support, and retention has incurred losses in both financial and human resources (Harvey & Moeller, 2009). Expatriate failure rates in US organizations are significant, ranging from 16% to 40% (Brookfield GRS, 2010) and costing from $50,000 to $200,000 per premature return (Brookfield GRS, 2010; Harvey & Moeller, 2009). Moreover, of the approximate two-thirds of expatriates that do not return early, about half are considered by their sponsoring organization to be ineffective in their assignment (Harvey & Moeller, 2009). Taking into account that the cost of supporting an overseas employee is approximately $300,000 per annum (Harvey & Moeller, 2009), the costs of an ineffective expatriate are actually higher than a failed one.

However, failure is not the paramount concern when selecting expatriates. Sometimes it can be difficult to get employees to agree to an international location in the first place. The number one reason that an employee refuses an assignment is due to family concerns (Brookfield GRS, 2010). Furthermore, the single most critical issue facing sponsoring organizations is spousal resistance. If the spouse is not "on board", the entire assignment could be destined to failure before departure has even occurred.

Brookfield GRS (2010) found that assignment failure is most often due to three main reasons: spouse/partner dissatisfaction, family concerns, and inability to adapt. These reasons far outweighed other causal factors in terms of expatriate assignment failure. Further understanding of these areas by sponsoring organizations could lead to revised support programs, and, in turn, potentially reduced assignment failure rates, provided sponsoring organizations are prepared to be persuaded. But before these practical measures can be put in place, an understanding of the theoretical underpinnings of cultural adaptation is necessary.

Components of cross cultural adaptation

Haslberger defined cross-cultural adaptation as a "complex process in which a person becomes capable of functioning effectively in a culture other than the one he or she was originally socialized in" (2005, p.86). Despite this seemingly simplistic definition, cross-cultural

adaptation as a concept has multi-faceted dimensions. For example, Gudykunst and Hammer (1987) defined cross-cultural adaptation as 'state adaptation', or, in other words, the degree of fit between the individual and his/her environment. Based on this definition, adaptation is not static and may fluctuate from bad to good and back (Waxin & Panaccio, 2005). Most frequently, cross-cultural adaptation is a process of acculturation of the newcomer as well as the convergence over time of behaviors, values, norms, and underlying assumptions of the individual with those prevailing in the environment.

Yu, Yi, Chiao, and Wei (2005) viewed adaptation as having two components: adjustment and assimilation. Adjustment has been defined as "the degree of psychological comfort of an individual with several aspects of a new environment" (Waxin & Panaccio, 2005, p.52). Puck et al. (2008) viewed assimilation as the acceptance of the host culture coupled with the ability to act comfortably within the social confines of the culture. One might conclude that the presence of both desired components would definitely ease the stress undergone by sojourners grappling with a different culture from their own.

Yu et al. (2005) classified adaptation into adjustment, reaction, and withdrawal. In order to reconcile the conflict between an individual's behaviors and host culture, there must be an adjustment of behaviors to conform to the host environment. This is consistent with the old adage "When in Rome, do as the Romans do." Reaction occurs when an individual modifies his or her behavior in response to the host environment. This behavior modification can result in changes in the response of the host environment to the individual. An example of this is a tourist's negative reaction to the taste of the host country's food. In the name of hospitality, the hosts will exert effort to please the tourist by not serving its native dishes and instead search for foods more to the tourist's preferred tastes.

The passive response of withdrawal is an inert reaction to the pressures of fitting in to the host culture, which implies that the individual has abdicated active participation in attempting to adapt to the new environment. An example is physically isolating oneself from the cultural group, such as a newcomer locking himself away to avoid socializing with both natives and other expatriates. Berry (as cited in Yu et al, 2005, p.189) concludes "that both reaction and withdrawal are usually unworkable and the only feasible strategy in the process of adaptation is adjustment."

Much of the academic research in the field of cross-cultural adaptation has been theoretical (for example, the seminal work of Black, Mendenhall, & Oddou, 1991). Research has centered more on an unsystematic search for factors that influence the adaptation process as opposed to a systematic identification of factors that influence the adaptation process and a theoretical explanation of that process.

In an international assignment, the expatriate worker and his family go through various adaptation dynamics (Hocking, Brown, & Harzing, 2007; Insch, McIntyre, & Napier, 2008), and it is possible that each member goes through it at differing levels and at different speeds. The degree of difficulty in the adjustment of the expatriate worker to a different culture may affect his commitment to stay on for the duration of his assignment or his early return to his home culture (Black & Mendenhall, 1991). This idea gives rise to the observation that the research is indeed unsystematic to the different elements of adaptation as identified by the various researchers, described in detail in the below section.

Spousal adjustment

An important factor that has a direct impact on expatriate adjustment is spousal adjustment since the spouse has a great influence over the expatriate worker (Takeuchi, Lepak, Marinova, & Yun, 2007). It may be concluded that the general works on cross-cultural adaptation already referred to offer pertinent messages in relation to spousal adjustment, but there is also an extant body of work that relates specifically to this aspect of the subject. As a starting point, Lazarova, Westmand and Shaffer (2010) identified the significant predictors of spouse adjustment as culture novelty, comparable living conditions, support satisfaction, and perceived family support.

The recognition of the great impact that the cultural adjustment of the expatriate spouse has on the adjustment and performance of the employee expatriate has caused a number of researchers to explore the issue. The first attempts to investigate the level of the expatriate spouse's adjustment were made by Black and Mendenhall (1991) and more recently by Lazarova, Westman, & Shaffer (2010). Black and Mendenhall (1991) suggest a model of spousal adjustment which includes 'general living adjustment' and 'interaction adjustment' as facets of adjustment.

Most spouses undergo some drastic changes in lifestyle. For example, their general living adjustment may either be a few steps up or a few steps down from the standard of living to which they were accustomed in their home country. Aside from that, they have no choice but to interact with a variety of personalities that may differ from their own mold. Mohr and Klein (2004) added the facet of 'role adjustment', considering spouses take on a different role overseas as they are faced with new tasks, identities, and expectations (Van Der Zee, Ali, & Salomé, 2005). Some have previously been employed in their home country and then suddenly find themselves as housewives or the other way around.

Mohr and Klein (2004) identified twelve factors that may foster or hinder spousal adjustment arising from their investigation of the cross-cultural adaptation of American expatriate spouses in Germany. These factors include: age, children, knowledge of host country language, previous international experience, motivation, openness, degree of participation in the company decision-making process, perceived cultural distance/culture novelty, pre-departure cultural training, interaction with host-country nationals, length of stay, and adjustment of the spouse whom has taken the expatriate contract.

Lazarova et al. (2010) added personal adjustment to the litany of related adaptation factors of spouses. Personal adjustment was tied to several factors, one of which was the attempt to learn the host country language. Their findings indicated that spouses who had positive experiences in their host country had knowledge of its native language while those who had negative experiences did not attempt to learn it. The skill of language proficiency somehow affects the self-concept of the individual.

Spouses who were previously employed before the expatriation and then underwent a role shift into becoming "just" housewives of the expatriate workers had an increased need to reform their sense of self (Bikos, et al., 2009; Herleman, Britt & Hashima, 2008). On the other hand, when spouses were able to transport their work life to the host country, there was not the same need for a new identity, which made the adaptation process easier overall.

Yu, et al. (2005) studied the Asian perspective regarding spousal adaptation. Their model of adaptation of Taiwanese expatriate spouses on foreign assignments focused on dimensions of expatriate acculturation such as cultural flexibility, social orientation, a willingness to

communicate, ethnocentricity, and conflict resolution orientation, and orientation towards knowledge. It was found from the case interviews conducted by Yu, et al. (2005) that when Taiwanese expatriate spouses have high cultural flexibility, high social orientation, a high willingness to communicate, low ethnocentricity, and a high orientation towards knowledge, they tend to interact more with local nationals and adapt to the foreign life more readily.

Like the findings of Lazarova et al. (2010), if spouses cannot adapt well, two responses might occur: they may form a small social group with other expatriate spouses from the same country and their social activities may very well be with the people in such a group (i.e., 'reaction') (Templer, Tay, & Chandrasekar, 2006). However, if a social group cannot be formed, the spouse will likely spend most of their time at home, thereby restricting the possibility of their coming in contact with the external environment (i.e., 'withdrawal').

Social Learning Theory

Companies sponsoring expatriate assignments are faced with both an acknowledgement of the difficulties of spousal adaptation yet precious little in terms of practical assistance. In order to move from acknowledgement to assistance, it is imperative that companies understand not just that spouses *must* adapt for an assignment to be successful but also *how* that adaptation can be supported and progressed by the company.

Past research in the area of learning theory has been organized in two primary frames of reference: cognitive and behavioral. Cognitive theories of learning postulate that learning is a result of the mental processing of information coupled with the determination to execute the newly learned behavior. On the other hand, behavioral theorists believe learning is a result of behavior, its consequences, and the association made between the two by the individual (Zhou, Jindal-Snape, Topping, & Todman, 2008). But neither theory can stand alone as the preeminent theory of learning because neither theory can be truly tested. Thus, a balance must be struck between these competing theories to more fully understand the way in which an individual learns.

This balance can be found in Social Learning Theory (SLT, see figure 1), which is a marriage of cognitive and behavioral learning theories, and many researchers believe SLT is a superior learning theory for this reason. SLT is a compromise point on most facets of learning, and some researchers (Sulsky & Kline, 2007) view SLT as a logical amalgamation of cognitive and behavioral learning theory. Therefore, SLT can be applied to aid the understanding of the theoretical underpinnings of cultural adaptation.

Social learning theorists believe that individuals can learn based on the consequences of their own behavior, but that they can also learn by observing the behavior and associated consequences of others and imitating the behavior. Individuals possess ‘anticipatory control’, meaning that they can choose how to react in future situations. SLT has four central elements: attention, retention, reproduction, and incentives and motivational processes (Bandura, as cited in Sulsky & Kline, 2007).

In order to learn from modeling someone else’s behavior, an individual must first notice, or have their attention called to, that person (Toh & DeNisi, 2007). Bandura (as cited in Gleason, Iida, Shrout, & Bolger, 2008) identified several elements that influence an individual’s attention: (1) the status of the model; (2) the attractiveness of the model; (3) the similarity of the model; (4) the repeated availability of the model; and (5) past reinforcement for paying attention to the model (actual or vicarious).

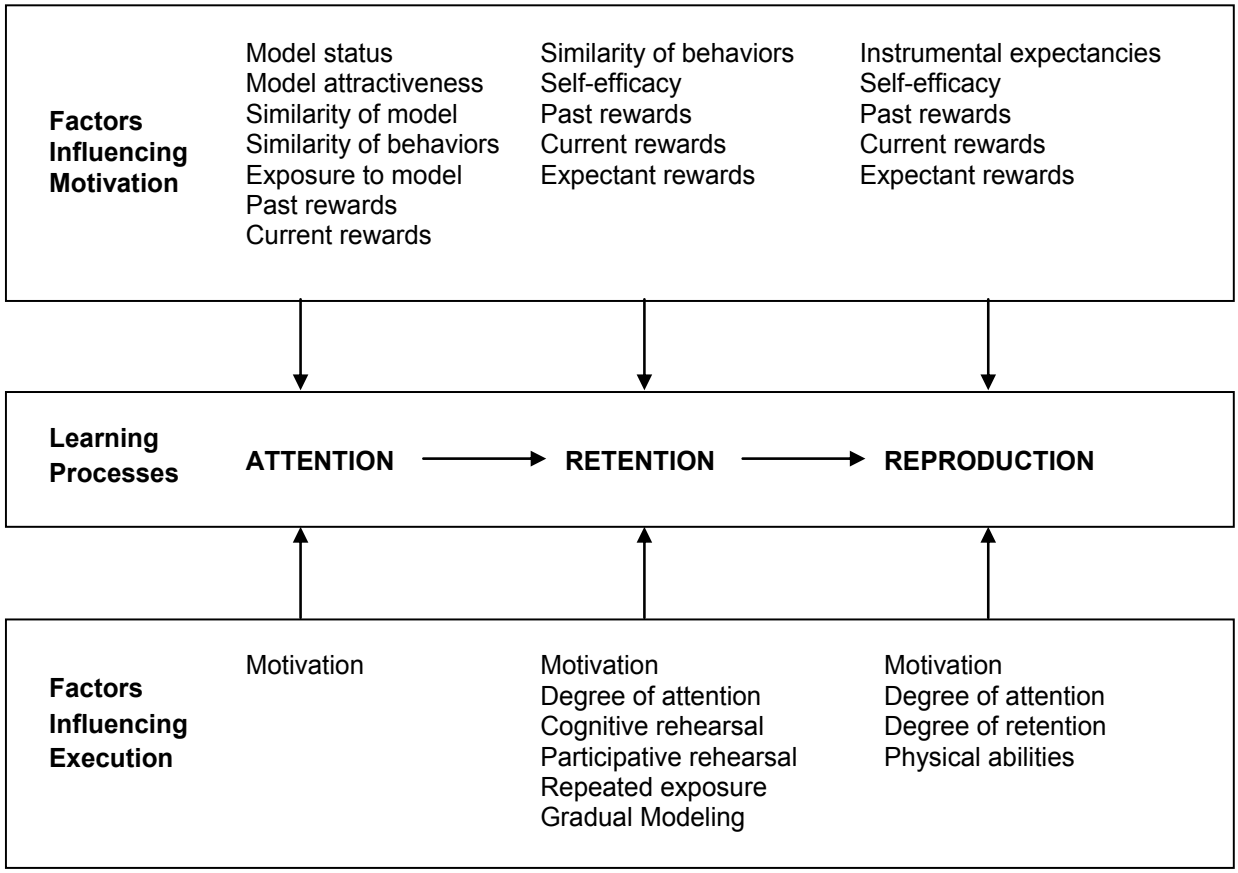

Figure 1. Model of Social Learning Theory Process (Black & Mendenhall, 1991)

Retention refers to the process of encoding observations into the memory of the observer. This is done through two systems, imaginal and verbal. The imaginal system is utilized when the individual observes the behavior and records these sensory images as 'cognitive maps', which can then be recalled to remember the behavior. The verbal system is utilized when the individual groups observed verbal cues together in integrated units. Both the repeated modeling of a behavior and the repeated cognitive rehearsal of the behavior serve to solidify retention.

Reproduction refers to the process of the individual recreating the modeled behavior. During the reproduction process the individual will constantly check their actions against those of their memory of the modeled behavior. This process can result in variations from the original behavior dependent upon how well the observer remembers the behavior. Also, there will be differences between the observed behavior and the reconstructed behavior due to physical and mental disparities between the model and the person recreating the model.

Incentives create motivation in the individual to model behavior. Incentives can stem from three primary areas: the direct external environment (e.g., a dog receives a treat every time it follows its master's command), vicarious association (e.g., the dog sits when it sees its master as it associates this correctly executed command with receiving a treat), and from within the individual themselves (e.g., the dog feels hungry so is motivated to go to its food bowl in order to satisfy its need).

Incentives have a great effect on an individual's motivation to learn and/or repeat a certain behavior (Zhou et al., 2008). For example, they can affect which models are observed and how closely attention is paid to a particular model, as well as influencing the level to which the observed behavior is preserved and reviewed and acted out. Bandura's empirical work led him to believe that incentives greatly influence which behaviors are explicit as opposed to just learned. He postulated that an individual can learn many behaviors, but will only act out select behaviors to either achieve positive consequences or to avoid negative ones.

Bandura (as cited in Sulsky & Kline, 2007) identified two types of expectancies with regards to motivational learning processes: efficacy expectations and outcome expectations. Self-efficacy is the degree to which the individual believes they can successfully execute a particular behavior. Individuals with higher levels of self-efficacy will persist longer in attempts to duplicate behavior and will attempt to duplicate more novel behavior. Bandura found that self-efficacy is increased by past experience, vicarious experience, and verbal persuasions. This expectation closely matches Vroom's "effort to performance" expectancy in his expectancy theory of motivation.

The second type of expectancy that Bandura proposes as linked to motivational processes is outcome expectancy. Outcome expectancies are related to the individual's belief that certain types of behaviors will result in specific outcomes. Bandura's outcome expectancies are similar to Vroom's "expectancy-to-performance-of-outcomes" aspect of his work in expectancy theory of motivation. Bandura believed that while attention, retention, and reproduction played an essential role in the learning process, incentives sway what behaviors individuals learn, and that incentives and expectancies combined influence which of learned behaviors are executed.

In developing his theory of social learning, Bandura (as cited in Sulsky & Kline, 2007) made several important empirical findings. First, he found that gradual modeling is more valuable than 'one-shot' modeling, particularly when an individual is observing novel behavior. With gradual modeling, the observer progressively observes a behavior. Bandura makes this assertion based on four principles of SLT: (1) observers take notice of models and behaviors that are recognizable; (2) observers find it easier to remember models and behaviors that are already stored as cognitive maps; (3) more familiar behaviors produce greater efficacy and outcome expectations in the observer; and (4) observers are more likely to replicate more familiar activities.

A second key empirical finding is that individuals can successfully learn a behavior through symbolic modeling. Just by observing and mentally practicing, an individual can effectively learn a behavior. The success of symbolic modeling as a learning tool is enhanced by other previously mentioned variables such as attractiveness and similarity of the model, as well as repeated observation.

A third important empirical finding is that participative reproduction is usually more effective than symbolic modeling alone. The chances of successful execution of a modeled behavior are increased if the observer physically rehearses the action as opposed to solely mentally rehearsing it. Physically rehearsing the behavior allows for external feedback, which can help the observer refine his behavior to more closely match that of the model.

Because individuals are aware of the consequences of their own behavior and the consequences of the behavior of those around them, they can form symbolic and vicarious links between behavior and consequence (Black & Mendenhall, 1991). These links can then be transformed into cognitive maps that can be used to predict consequences about future behavior. In the perspective of cross-cultural adjustment where an individual is confronted with new

behaviors and no relevant cognitive maps to aid in prediction of consequences, SLT can provide useful insight into whether adjustment will progress.

Introduction to the host country

During the initial phase of acculturation, individuals, including a trailing spouse, are likely to make many cultural errors. However, they do not notice these errors or the associated negative consequences for several reasons. First, the short time frame that the individual has been in the new host country means that, although they may commit many behavioral mistakes, they will not have had enough time to accumulate enough errors to begin associating behavioral mistakes with negative consequences. It is a build-up of time and gradual association between behavior and consequence that moves the individual from naïve wonderment about how different the new culture is to one of potential dissatisfaction and resentment.

Black and Mendenhall (1991) postulated that in the initial introduction to a new culture, individuals will report the lowest level of cultural differences between themselves and locals. This is due to the short amount of time in which the individual has had to identify major cultural divergences. Moreover, the negative consequences linked to inappropriate behavior will probably be different than what the individual is used to in their home culture, so it will take time before they can begin to recognize negative consequences as a result of their own or someone else's behavior. Since individuals have a need to preserve their own self-concept, so they might fail to see they are committing incorrect acts as they ignore negative feedback so as to preserve their prior self-concept.

Culture shock

What happens when the novelty of the new culture gives way to an acute awareness that 'different' feels less exotic and more isolating? The rising awareness of negative consequences resulting from inappropriate behavior coupled with a lack of understanding as to appropriate behaviors leads to anger, anxiety, and frustration, which are classic emotions one experiences during culture shock (Black & Mendenhall, 1991).

Several factors influence which models an individual observes and how much attention is paid to each model. These factors include attractiveness, repeated availability, importance, and similarity of the model. Typically individuals are drawn to models that are similar to themselves and thereby more attractive. The amount of divergence between the home and host country, or what some researchers (Selmer, Chiu, & Shenkar, 2007; Tihanyi, Griffith, & Russell, 2005) have referred to as 'cultural distance', will have an impact on which models the individual finds attractive and therefore notices. The greater the cultural distance between the home and host cultures, the less likely it is that an individual will seek to model local behavior (Black & Mendenhall, 1991; Stahl & Caligiuri, 2005). This rejection can increase the duration and degree of culture shock experienced.

Selmer et al. (2007) concluded that the greater the differences between home and host culture, the greater the difference between the individual's perceptions of appropriate behavior to local perceptions of appropriate behavior. This rejection of appropriate host country behavior results in culture shock because it increases the negative consequences and reactions aimed at the individual. This, in combination with the fact that the individual has not had enough time in the new environment to find and model other locals' behavior repeatedly means that they are left

with negative reactions but no idea as to how to behave appropriately in order to stop the negativity. Again, this results in frustration, anger, and anxiety. However, the increasing amount of time spent in the host country will allow individuals to identify and observe models, from which they can begin to form more appropriate behavior patterns, thereby moving them into phase three of the adaptation process.

During the adjustment phase, individuals begin to recognize and execute modeled behavior, as this is the point where they have had an opportunity to identify, pay attention to, and repeatedly observe behavioral models. So it is at this point that performing these modeled behaviors begins to result in positive interactions and consequences and mitigate negative ones. The new positive consequences serve as reinforcement of the new learned behaviors, which, after a certain amount of repetition, will lead to increased comfort with the host culture.

Anticipatory adjustment

SLT introduces the concept of anticipatory adjustment, meaning that, because individuals can learn vicariously, they can make anticipatory adjustments for interacting in their host culture before they even arrive (Sobre-Denton & Hart, 2008). These pre-departure adjustments can have an impact on the patterns of acculturation that emerge. Two factors affect whether an anticipatory adjustment will be useful in the adaptation process. First, the information utilized to make the anticipatory adjustment must be credible and correct. Otherwise, the individual will form opinions and behavioral patterns that do not actually correspond with that of the new host culture. The second factor is the format in which the information is presented. Information must be presented in a format that will encourage the individual to pay attention and retain the information. If format is not a consideration, then accurate information that could aid the individual in making positive anticipatory adjustments could be ignored or overlooked.

The single most important thing a sponsoring organization can do prior to commencement of an international assignment is to ensure that pre-departure training has been provided to not only the expatriate employee but also to the accompanying spouse. It is necessary for expatriate families to be prepared in all aspects before leaving for a foreign country in order for them to adapt to life in the host country as early, quickly, and smoothly as possible.

One of the things that an organization could provide includes transmittal of information about the customs, culture, and norms of the host country (Yu et al., 2005). While this seems simple, many companies focus only on the tangible aspects of the new country such as finding housing or school enrollment and leave intangibles such as cultural knowledge unaddressed. The more they know, the better the trailing spouse will be able to anticipate the differences between the home and host culture and therefore begin the process of mental adjustment to a country with a different set of cultural morays, historical significances, and religious attitudes. Even basic awareness of the differences they may encounter will aid in preparation for psychological adjustments and contingency measures.

For assignments in countries that do not share a common tongue, companies can provide basic language training to expatriate spouses. Preparing for a move by learning even a little of the host country language can aid the adaptation process as it will facilitate easier communications with locals upon arrival in the new location. Shaffer and Harrison (2001) found that the more of the host country language a spouse learns, the less shocking the entire adaptation process will be.

Career planning is another service that companies could offer to training spouses. As previously mentioned, a significant challenge in the adaptation of expatriate spouses in a foreign country is the lack of something worthwhile to do with their skills and professional training, particularly if they have had to walk away from an existing career path in their home country. Feeling frustration at giving up what they had accomplished or achieved by working in their home country is potentially alleviated by planning what they can do in the host country and actively engage in those activities. By focusing on how they can either continue their existing career in the host country (or even find a new line of work), spouses can lessen the shock of a professional identity shift.

CONCLUSION

A firm understanding of the adaptation process by expatriate employees, their partners, and their companies is of prime importance as this understanding could assist companies in developing support programs with an aim to reduce expatriate failure rates as well as assist families by reducing the stress of relocation. The continued need for globally mobile executives means that, in order to increase the expatriate's chances of success, companies should be aware of the psychosocial needs of the spouse willing to follow their partner's career. Companies can provide formal support programs as well as encourage informal support systems in hopes of aiding the accompanying spouse with transition, thereby improving the chances of the expatriate employee's success.

From an individual perspective, the expatriate employee will have a smoother work transition and greater chances of success if their accompanying spouse has an easier acculturation period. From the accompanying spouse's point of view, increased awareness of the special needs and issues in making an international relocation will make their transition a smoother one so that they can support their family in their new global functions.

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A COMPARISON OF INTERNATIONAL STUDENT ATTITUDES CONCERNING ACADEMIC DISHONESTY

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ABSTRACT

Incidents of academic dishonesty continue to affect every college and university in the United States, at both the undergraduate and graduate levels. This is also true at institutions of higher education in other countries. At some point during their academic careers, estimates are that 50-70% of all college students engage in various forms of cheating, including plagiarism, group work on individual assignments, improper use of technology, and other forms of dishonesty. The need for action to minimize this problem is evident, especially given the need of employers for highly-skilled and ethical workers in a global economy, and the recent spate of business scandals related to ethical misconduct in many nations. This article describes the perceptions of male and female business students from 20 different nations on 5 continents regarding what specifically they think constitutes academic dishonesty, and what they perceive should be done when infractions occur. The results of the nominal data analysis herein could provide guidance to college professors and administrators as they evaluate incidents of academic dishonesty involving students from different cultures and backgrounds around the world.

Keywords: Academic integrity, international, cheating, student attitudes, instructor actions

INTRODUCTION

Frederick Douglass (Douglas, 2012) viewed integrity highly and stated, "The life of the nation is secure only while the nation is honest, truthful, and virtuous." The authors of this article embrace this concept and have extensive, long-term experience as both college professors and management consultants. Over the past several years, they have collected information from business students attending both domestic and foreign colleges and universities on their attitudes toward academic dishonesty and what they do when infractions occur (Frost, Hamlin, & Barczyk, 2007). This paper provides a review of the literature about existing student attitudes towards academic integrity, and an analysis of a survey given to over 200 students in 20 nations about their perceptions of acceptable and unacceptable behavior in an academic setting. These perceptions are based on different scenarios given to the students on the survey instrument, and also provides input regarding whether the students themselves have engaged in unethical behavior. It is hoped that, with the results of this paper, faculty and administrators who are involved in adjudicating cases of academic dishonesty will be provided helpful information regarding cultural differences which might impact their decision about how best to discipline those who break the rules.

This paper is organized into four parts. The first describes why the problem of academic dishonesty is important, examining the extent of the problem and describing approaches to control it. The second is a review of the literature, covering current research and findings about how colleges are dealing with the problem in a multi-national setting. The third is an analysis of our primary research and the tool used to conduct it. The last section provides concluding remarks and assesses the implications for further study in the field.

WHY THIS PROBLEM IS IMPORTANT

While the root cause of academic dishonesty is the subject of much debate, anecdotal evidence suggests multiple factors, including media influence, lack of family training, peer pressure, and changing societal norms. Many undergraduate students in colleges and universities either engage in dishonest behavior themselves; refuse to turn in fellow students who they see cheating; think it is permissible to cheat if the rewards are high enough; or have some other type of unhealthy or unrealistic attitude. These attitudes can result in more dishonest behavior, which in the long run, hurts both the cheater and honest students that do not engage in such acts (ibid).

When considered in tandem with the public perception of increased corporate dishonesty (which has evolved over the past decade as a result of lax ethical practices) and employers' requirements for educated business graduates with a thorough grounding in integrity, the need for a solution to the problem of academic dishonesty has never been greater. Six points highlight the urgency of this issue. First, academic dishonesty occurs frequently in every discipline, as discussed in the next section. Second, there is often no uniform method for dealing with the problem even within the same department, much less between different universities in different countries. Further, administrators are often more concerned with increasing enrollment than with reducing unethical behavior. Thus, individual faculty members can be left to fend for themselves, and most instructors, regardless of tenure status, do not wish to increase their workload by becoming "enforcement officers" in the classroom. Third, non-tenured faculty members have even less incentive to deal with this problem, since student retaliation on end-of-semester evaluations can interfere with the instructor's goal to attain tenure. Fourth, discrepancies and inconsistencies in either policy or implementation can result in legal problems. Fifth, honest students are disadvantaged when dishonest students are not caught and punished, especially if the instructor grades on a curve. Sixth, how the issue is handled is of paramount importance in obtaining a positive outcome from this very negative experience. Academic instructors must foster the perception that integrity policies and enforcement mechanisms are fairly and consistently applied for the benefit of both faculty and students. Even if these points are addressed, dishonesty will remain a problem for colleges and universities. The scope of the issue is so massive that the authors strongly believe that it is their responsibility to at least make an effort to minimize it (Hamlin & Powell, 2008).

Not many schools include vigilance in academic integrity in their promotion and tenure guidelines. This may contribute to the attitude in some universities that what constitutes cheating needs to be redefined. There is often an opportunity to apply personal interpretation. It is interesting to note that students in some cultures often operate under a different "moral code" than American and western European universities, and thus they may not view certain types of restricted behavior as dishonest. This often occurs in collectivist countries where the culture embeds in its citizens an attitude that "one cannot let one's countryman fail." This very perception caused two Eastern European students to engage in cheating in a class taught by one of the authors in 2011, one of which was expelled from the

Most research projects and studies of academic dishonesty in the past compare student behavior and/or attitudes from universities within the same country. A few compare trends between two or three countries. This report seeks to expand the scope of the comparison, by using the same survey instrument to compare student attitudes in many nations about the same academic scenarios. Given the fact that American, and especially European, college classes today often contain students from many different nations, such information might help faculty members and administrators in their efforts to both communicate expectations, and handle with empathy and fairness any infractions in the classroom.

REVIEW OF THE LITERATURE

In the U.S., academic dishonesty permeates all levels of the educational system. The March 3, 2014 issue of Bloomberg Business Week ran a cover story about the cheating scandal involving student athletes at the University of North Carolina, in which a learning specialist who tutored mostly football and basketball players reported widespread cheating, unearned grades and even credit for non-existent courses (Barrett, 2014). A study by Bush way and Nash (Bushway & Nash, 2007) reported that American students cheat as early as the first grade. Similar studies show that 56% of middle school students and 70% of high school students have cheated in the course of their studies (Decoo, 2002). The first scholarly studies of academic dishonesty at the college level were conducted in the 1960s (Bowers, 1964). This researcher found that in US colleges and universities, 50-70% of students had cheated at least once. In a major study in 1990, rates of cheating remained stable, but differed between institutions, depending on their size, selectivity, and anti-cheating policies (LaBeff, Clark, Haines, & Diekhoff, 1990). Generally, smaller and more selective schools had less cheating. Small, elite liberal arts colleges had cheating rates of 15-20%, while large public universities had rates as high as 75% (LaBeff, Clark, Haines, & Diekhoff, 1990). Klein and others (Klein, Levenburg, McKendall, & Mothersell, 2007) surveyed 268 professional students and found that business students did not report cheating more than the other students. However they were more lenient in their attitude toward cheating.

In Europe, the Middle East, Asia, and Africa, dishonesty is also prevalent at all levels. The perceptions about what actually constitutes dishonesty also differ markedly between cultures. In one study, significant differences were found between American and Polish students regarding attitudes, perceptions and tendencies toward academic dishonesty (Lupton & Chaqman, 2002). Donald McCabe, a very well-known authority on academic dishonesty in the U.S., did a study comparing student attitudes and norms from the Middle East (specifically Lebanon) to those of Americans. His results support the view that Lebanese university students are strongly influenced by the norms of the collectivist society in which they were raised, and therefore differ in their attitudes about what constitutes academic dishonesty from their American counterparts, who were raised in a more individualistic society (McCabe, Feghali, & Abdallah, 2008).

The impact of culture on a student's perception of what constitutes dishonesty is illustrated in a paper that appeared in the College Student Journal in 1998. This research compared cheating trends of American versus Japanese students, and also what determinants, techniques and deterrents contributed to these trends (Burns, Davis, Hoshino, & Miller, 1998). Another study by Hajime Yasukawa analyzed how cross-cultural differences affected both the quantity of cheating, and the attitudes about whether cheating was actually dishonest. He compared U.S. and Japanese students over time, and found that Japanese students reported a higher incidence rate of cheating on exams, a greater tendency to justify the cheating, and also greater passivity in their reactions to observing other students who cheat (Diekhoff, Shinohara, & Yasukawa, 1999).

In Russia, there is a heavy focus on group assignments in education from a young age. This "muddies the water" about what is or is not permissible when students are expected to do their own work. One study of college business students in the U.S. and Russia found major differences in attitudes, perceptions and tendencies towards academic behavior and dishonesty (Lupton & Chaqman, 2002). Similarly, research about cheating patterns between college students in India and the U.S. showed not only that the impact of growing up in a collectivist culture affects perceptions about what constitutes dishonesty, but even illustrates the differences between the sexes of such perceptions. For example, the data revealed that Indian and U.S. men were more likely to cheat than women of both cultures (Taylor-Bianco & Deeter-Schmelz, 2007).

It is also important to note the motivators for cheating. Simkin and McLeod (2010) noted several cheating motivators in business students. For example, they noted the issue of new opportunities that did not exist twenty years ago. The ability to quickly copy materials verbatim from the internet is very tempting to time-strapped students. This is often coupled with a "winning is everything' attitude in some cultures that can justify doing anything that will give one a competitive advantage. There is also the issue linked to the previous motivator that the reward for excellence may exceed the punishment if caught breaking an academic integrity rule. In fact, these are sometimes only guidelines and these are open for personal interpretation. There is also a major concern for the faculty member's career and/or the classroom environment when noting an issue of academic integrity. Some schools foster an environment that accepts issues in academic integrity and any faculty member that takes a student to task on integrity issues may find their career sidetracked.

The issue of academic integrity and dishonesty in education has also been addressed in recent presentations. In a 2014 paper presented at the 22nd Annual International Conference on Academic Integrity the presenters reported that over half of the students at the two subject schools cheated often (Click & Walker, 2014). There were also similarities in student opinions about the reasons for their dishonesty. The students stated that their main motivations were:

- Taking the easy way out
- Laziness
- Not enough time
- Wanted better grades

The impulses to cheat stated above are countered by a study into the reasons not to cheat and act dishonestly. In an article in the Journal of Experimental Education, Miller and others studied the reasons students choose not to cheat. The four reasons were learning goals, character issues, moral beliefs and the fear of punishment. They also noted that punitive consequences are needed when the student has not developed a strong character or moral belief as being important to their success in the goal of education (Miller, Shoptaugh, & Wooldridge, 2011). Another study compared student perceptions to cheating at various schools, and found that traditional honor systems, with specific rules and regulations in place, are more effective at cultivating academic integrity among students. However, they also found that modified honor systems may not be as effective as previous research suggests (Schwartz, Tatum, & Hageman, 2013).

Academicians are apparently confused about who has what responsibility to teach issues concerning academic integrity. Erika Lofstrom and others studied the issue of who teaches such concepts at colleges in New Zealand and Finland. The results of their study showed that the academicians were united in their ideal of the importance of academic integrity; however they were "not of one mind about what it is, how it should be taught, whether or not it can be taught, whose responsibility it is to teach it, and how to handle cases

of misconduct (Lofstrom, Trotman, Furnari, & Shephard, 2015).” For example, professors who use group case studies may find that collusion, “free loading,” and other problems arise. Some students will not participate at all and expect full academic reward for being part of the group. This issue was noted by Sutton and Taylor with their comment that “there is often a general absence of clear guidelines as to where the boundary lies between cooperation (commendable) and collusion (unacceptable)” (Sutton & Taylor, 2011). The issue of collusion was a finding in another study where ten scenarios were provided to undergraduate pharmacy students. The researchers noted there was quite a bit of uncertainty on academic integrity decisions when collusion was involved. They recommended training as a method to reduce this uncertainty. Another issue they found involves the concept of a whistleblower. Is the student required to report on other student’s behaviors, especially in absence of a strict honor code explicitly covering that issue? The final issue these international instructors identified was the lack of professional development support to address issues of academic integrity as part of their educational effort (Emmerton, Jiang, & McKauge, 2014).

A recent international study involving 27 European nations was led by Tomas Foltynek and Irene Glendinning (Foltynek & Glendinning, 2013). They found inconsistencies between institutions in these countries on issues such as understanding academic integrity, the accountability for decisions made, having clear processes to be followed and the resulting decisions of faculty investigating academic integrity violations. They noted an increasingly disturbing trend for exhibiting a “head in the sand” attitude. Further, the authors of this study saw a variance between the western and eastern European cultural attitudes about collaboration on classroom assignments. Eastern European students tended to feel that plagiarism was a relatively normal thing and often exhibited an attitude of “shoot the whistleblower,” while their western counterparts were more individualistic in their approach to class assignments.

One study focusing on syllabus statements to influence student academic integrity used statements based on prohibitions and academic integrity. They hypothesized that the statements in the syllabus would be an effective method of motivating change in the student’s ethical behavior. However they found that, while a statement on the issue of academic dishonesty may provide them a measure of guilt, such statements did not change a student’s intent to cheat. They summarized by stating that their findings “clearly show that various types of positively viewed syllabus statements that induced cheating-specific guilt did not have any effect on cheating intentions. In addition, different themes presented in the syllabus statements seemed to resonate with different students; some feared the punishment aspect, and others were uplifted by the high sense of personal honor. Based on these findings, we conclude that a variety of university-wide approaches to increasing academic integrity that go beyond single syllabus statement interventions are likely to be the most effective means to academic integrity,” (Staats & Hupp, 2012).

ANALYSIS OF PRIMARY RESEARCH

Data Analysis

Data was collected from multiple international business classes over the past three years. Two hundred thirty students participated in a multi-question survey to identify their personal attitudes towards varying issues of academic integrity. These students were international undergraduate students in a business major. The survey was conducted in hard copy with the students circling their selected choices and writing responses to the open question that dealt with their personal attitude/view of academic dishonesty and cheating. We chose to use hard copies as some of the students did not have access to computers to enter

responses on-line during class, and the motivation to complete the survey would have been reduced after class time. The surveys were entered into an Excel worksheet and reviewed for accuracy. This involved a hand checking each entry for accuracy combined with computer analysis for error checking. The gender breakout for this survey was 129 females and 101 males from thirty countries. The following table (Table 1) shows the sample number from each population sorted from highest grand total to least:

Table 1
Distribution of Students by Country

Country	F	M	Grand Total
Austria	28	24	52
USA	10	21	31
France	13	13	26
Indonesia	5	6	11
Canada	8	2	10
Spain	9	1	10
Lithuania	6	3	9
China	7	1	8
Germany	6	2	8
Columbia	1	6	7
Mexico	6		6
Sweden	2	3	5
Finland	4		4
Japan	3	1	4
Slovakia	2	2	4
South Korea	2	2	4
Czech Republic	2	1	3
Netherlands	2	1	3
Portugal		3	3
Russian Federation	2	1	3
Chile	1	1	2
Italy	1	1	2
Latvia	2		2
Taiwan	1	1	2
Turkey	1	1	2
Belgium	1		1
Brazil	1		1
Croatia	1		1
DR Congo		1	1
Greece		1	1
Holland		1	1
Hungary	1		1
Luxemburg		1	1
UK	1		1

The survey consisted of thirteen questions in three domains:

- *The student's participation in an action of academic integrity*
- *The student's personal view on the action*
- *The student's personal view on what action the instructor should take*

There are a few instances where less than 230 students provided responses. Those were coded NR for no response. The following coding scheme was used to prepare the data for descriptive statistics on the first category of the 13 questions. The authors used this system to establish a general direction of the student's responses.

- never and/or a) 1-2 times = coded together as Rarely
- 3-5 times = coded as Occasionally
- 6-10 and/or d) many times = coded together as Many Times

The questions consisted of these thirteen varying concepts and scenarios of academic integrity.

Table 2: 13 Questions posed to students
1) In the past, I have directly copied another student's homework.
2) In the past, I provided my homework to another student.
3) In the past I worked with another student on an individual assignment instead of working alone.
4) In the past I worked with another student on a take-home exam instead of working alone.
5) In the past, I used a cheat sheet hidden in an ink pen, or on my body, etc., during an exam.
6) In the past, I received exam answers via a cell phone or another communications device.
7) In the past, I collaborated with another individual to receive exam answers during the exam
8) In the past, I reviewed a copy of the actual exam before test time.
9) In the past, I provided answers to another student before they took the exam.
10) In the past, I programmed answers into my calculator, cell phone or electronic device.
11) In the past, I wrote mnemonic helps (a short rhyme, phrase, or acronym for making information easier to recall) on a wall behind the instructor.
12) In the past, I copied text for a school assignment directly from the internet without any citation.
13) In the past, I obtained a research paper from the internet and turned it in for a class assignment.

Actions of Students

The first question set dealt with the actions of the student, things that they were doing themselves that would be questionable in the arena of academic integrity. The following chart (figure 1) of student actions shows all thirteen questions of the first domain. As we investigate the international student responses, we found anomalies from the general trend. We see a strong response (greater than 50% of the students responding rarely) for their personal actions except on questions two and three. The international students often seem to not have a problem in sharing their work or answers with other students, even if this may violate the instructor's wishes. They will share homework and assist another student with individual assignments. It may be a cultural effect that they feel obligated to assist students to boost another student's grades so they may excel as a group.

Further examination of the data show that there is strong opposition (90% rarely participating) to certain behaviors in the student's life. Questions six, eight and thirteen show little adoption of the activities of:

- *Using a communications device to receive exam answers,*
- *Providing answers to another student before they took the exam, and*
- *Obtaining a research paper from the internet and turning it in for a class assignment.*

Question six shows an area requiring technical expertise which may limit participation. Therefore the use of high tech may limit participation by international students. However, they also may not be inclined to use this technology or provide answers to another student before the exam. Also, apparently most of the students are unwilling to provide another student answers to an exam. However, perhaps they never gained access to an exam to share with another student.

The final question of the suite of thirteen shows that very few students have downloaded research papers from the web. However, closer examination reveals that 82% of the students have never downloaded a paper (Figure 2-Question 13a). Our concern is that not many classes are requiring a research paper. A large percentage of students have never downloaded a research paper. However nearly one in five have downloaded at least two research papers in the past. This is a major concern as research papers can form a major portion of the student's grade. It is also an important component of personal development. The critical thinking aspects of research and synthesis of those concepts into a research paper is important for a college student. We view this as a major concern revealed through our research.

Figure 1: Student Actions on 13 Questions

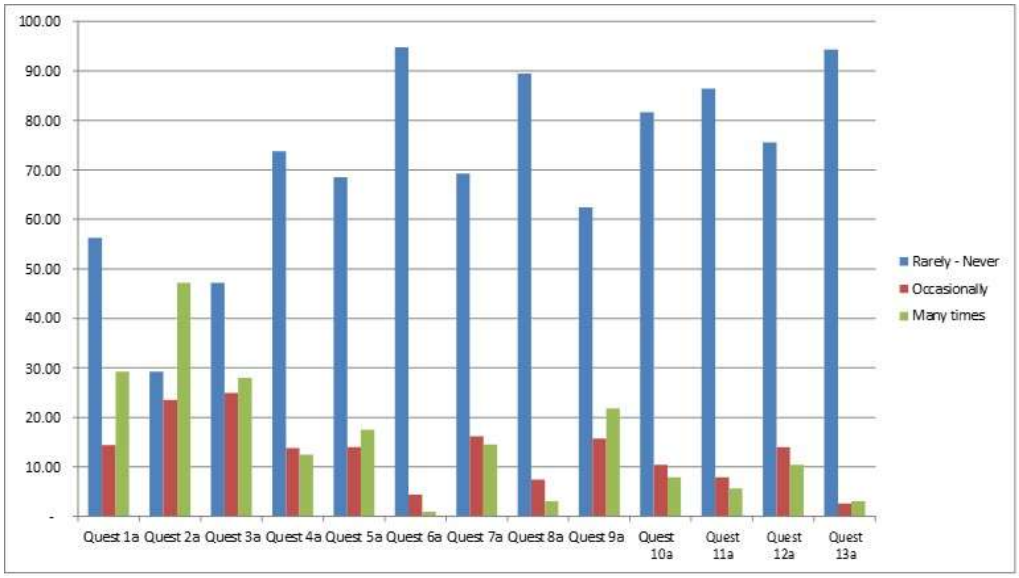
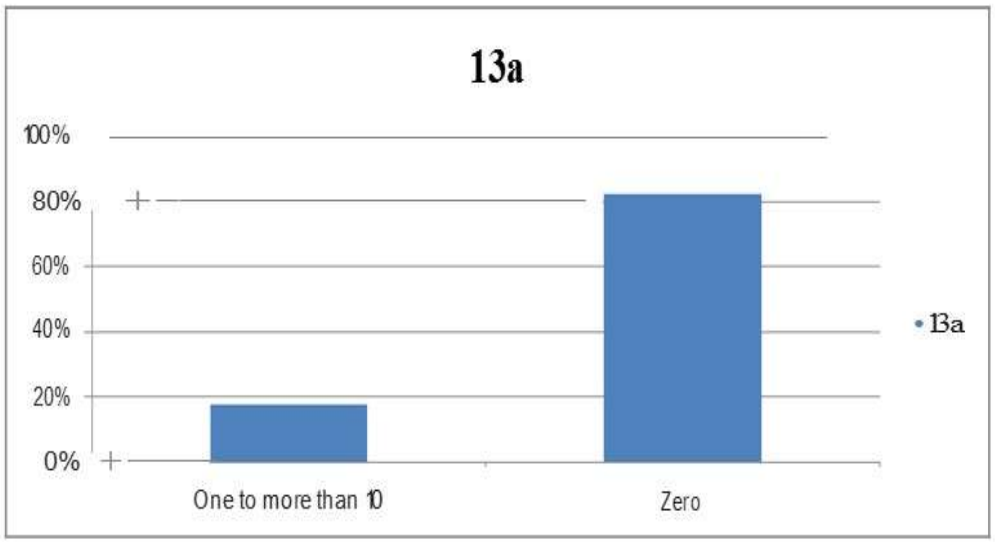


Figure 2: Downloading a Term Paper



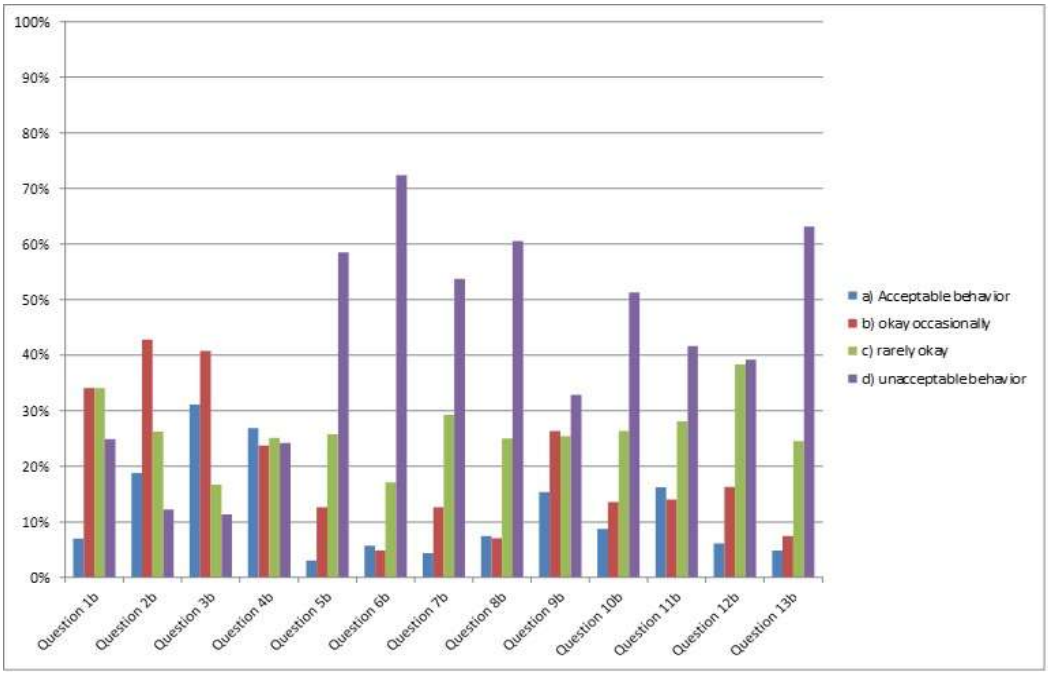
Student's Views

It is interesting to note the responses of students when it is someone else caught cheating (i.e. not their own personal actions). The second category of responses requested the student to respond to their personal view of the integrity of a specific action. The same 13 questions were considered as the student was asked, "I view this as" with choices of a) acceptable behavior b) okay occasionally c) rarely okay d) unacceptable behavior. The responses were grouped:

- *Acceptable behavior*
- *Okay occasionally*
- *Rarely okay*
- *Unacceptable behavior*

As we view questions one thirteen (Figure 3), the response of unacceptable behavior dominates the response set. This is especially evident in questions five through eight, and thirteen, where over 50% of the respondents indicate the issue as unacceptable.

Figure 3: Student View



Also, as we view the data the first four questions show students selecting all of the options with no outstanding option. Of this set, questions three and four display the strongest indication for acceptance of an issue of academic dishonesty. These questions are:

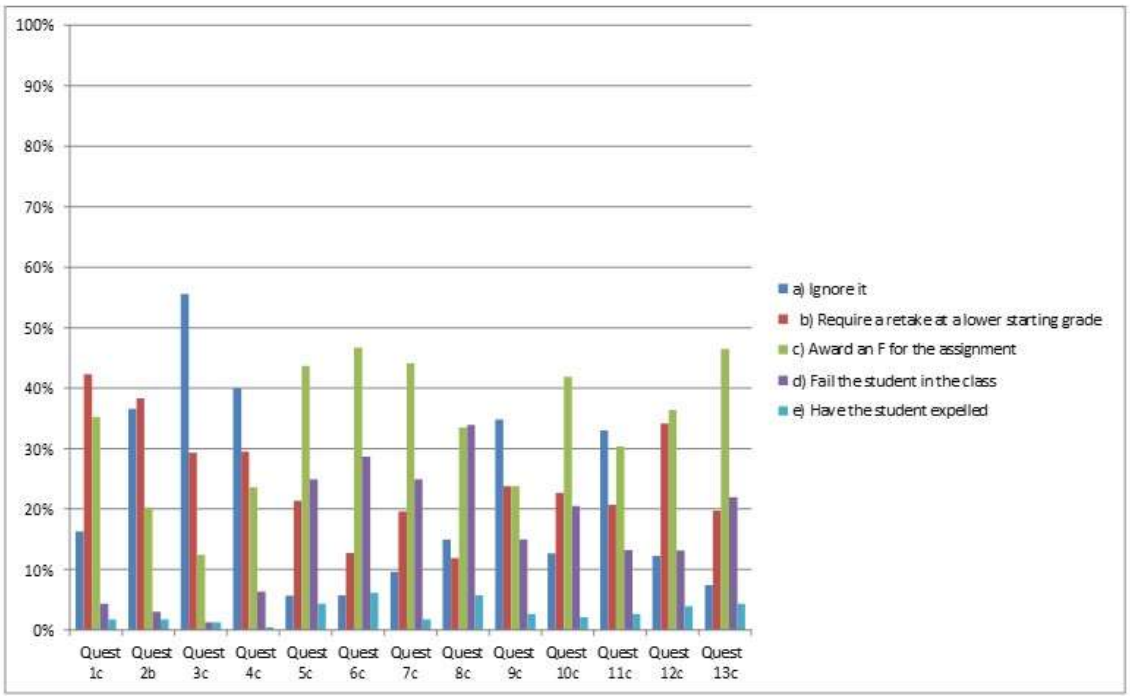
3) In the past I worked with another student on an individual assignment instead of working alone.
4) In the past I worked with another student on a take-home exam instead of working alone.

Both of these questions provide a further indication that the international students are amenable to supporting fellow students. This parallels their indications under their personal actions earlier in the survey.

Student Suggested Instructor Response

The first option for students to choose on the survey from the array of possible instructor responses is to "ignore it (Figure 4)." Those questions where more than 30% of the students choose "ignore it" are as follows:

Figure 4: Student's Selected Instructor Response



2) In the past, I provided my homework to another student (37%)
3) In the past I worked with another student on an individual assignment instead of working alone (56%)
4) In the past I worked with another student on a take-home exam instead of working alone (40%)
9) In the past, I provided answers to another student before they took the exam (35%)
11) In the past, I wrote mnemonic helps (a short rhyme, phrase, or acronym for making information easier to recall) on a wall behind the instructor (33%)

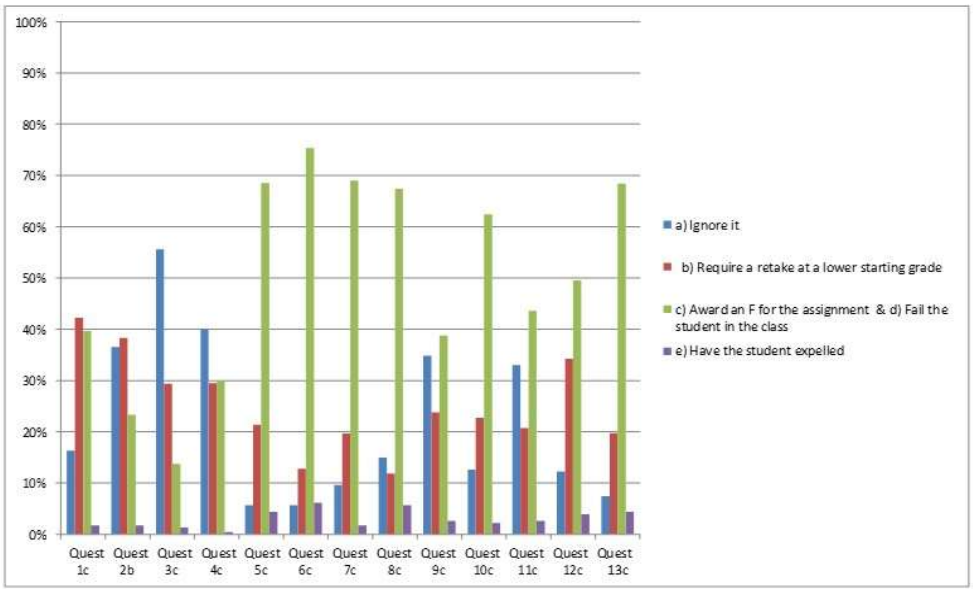
Again, as with the two previous categories, these are conditions where the student is reaching out and assisting a student that needed help (perhaps in their opinion). Number eleven may be viewed as less significant so the instructor could possibly ignore it. This was the highest response rate for this question, although a nearly equal number (30%) felt the instructor should give the student an F for that exam.

To capture the issues that invoke an F for assignment or F in the class, we combined the responses of c) and d) (Figure 5). The students suggest a severe penalty for those actions described in questions 5-13 below:

5) In the past, I used a cheat sheet hidden in an ink pen, or on my body, etc., during an exam (69%)
6) In the past, I received exam answers via a cell phone or another communications device (75%)
7) In the past, I collaborated with another individual to receive exam answers during the exam (69%)
8) In the past, I reviewed a copy of the actual exam before test time (67%)

9) In the past, I provided answers to another student before they took the exam (39%)
10) In the past, I programmed answers into my calculator, cell phone or electronic device (62%)
11) In the past, I wrote mnemonic helps (a short rhyme, phrase, or acronym for making information easier to recall) on a wall behind the instructor (44%)
12) In the past, I copied text for a school assignment directly from the internet without any citation (50%)
13) In the past, I obtained a research paper from the internet and turned it in for a class assignment (68%)

Figure 5: Instructor Action "F" Combined



When categories of c) & d) are combined, in questions five, six, seven, eight, ten, and thirteen a dramatic rise is displayed over the other choices. The first four questions are not excessive; however the others mentioned previously jump to your attention. A large portion of the students are indicating that action should be taken by the instructor in these questions that would be considered more serious than the first four question scenarios. It is also interesting that questions nine and eleven find support of all five responses by the instructor. Questions six and eight have the strongest selection by students that an instructor should pursue expulsion from school as a penalty for that action.

CONCLUSION

This international study provides some insights on the in-class behavior and attitudes of business students from various countries and cultures. The students are showing a willingness to reach out to fellow students to assist them in home work and exams. They are hesitant (a maximum of 6% of the students) to select expulsion from school for any of our scenarios. A final serious concern is that 18% of the students (basically one in five) have downloaded research papers from paper mills instead of developing them on their own. Teachers working with international students should be aware of theses tendencies and take actions to minimize these infractions.

Also, these international business students are consistent in their responses under all three domains (their personal actions, how they view those actions and their recommendations for actions by the instructor). We designed the academic integrity survey to

query the student from least serious (copying homework) to most serious (submitting a purchased research paper). The students demanded stiffer punishments for the more serious infractions and often selected "ignore it" for the lesser offenses.

We do not have a robust enough sample to show indications between countries; however we intend to expand our analysis in two areas. The first is a comparison of responses between the genders in the survey. Can a significant difference on any question be shown between the genders? The second is a content analysis of the written comments from the 230 students. An analysis of the content of their personal responses could establish two issues. What are the student's primary concerns for academic integrity and are their survey responses confirmed by their open ended responses?

We hope the analysis of the responses of the international students is enlightening and can guide the pedagogic efforts of instructors who teach such individuals. It is imperative that the professor clearly articulate what is acceptable and unacceptable behavior for their classes, both orally and on the syllabus. The instructors may wish to stress the importance of pursuing higher ethical standards in classes where students come from disparate regions. Examples or cases of ethical behavior, or student research on the importance of ethical behavior, may be important to modify the behavior of the students. Also, it may be important for the instructors to adopt a stronger vigilance in detecting issues of academic dishonesty, and apply any penalties fairly and consistently. By adhering to these recommendations, all parties will know what is expected, and how infractions will be handled. This will hopefully reduce the number of incidents of dishonest behavior.

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