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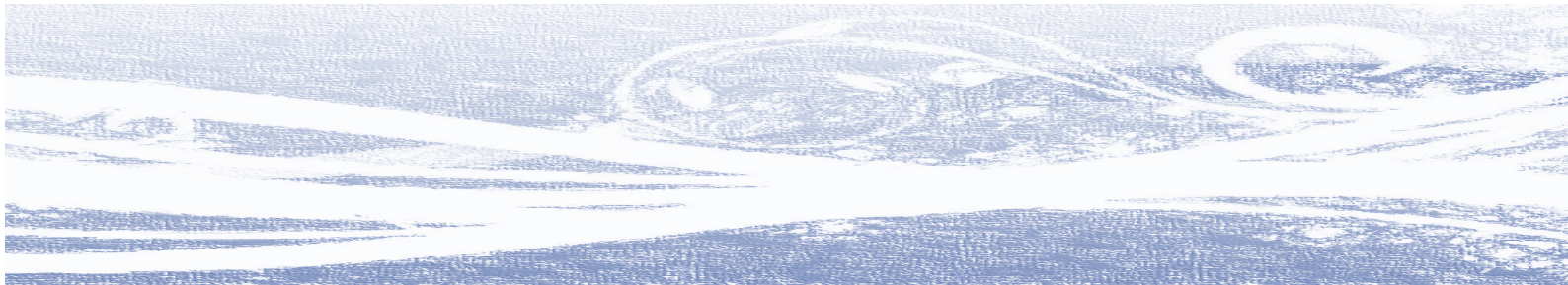
# QRBD

## QUARTERLY REVIEW OF BUSINESS DISCIPLINES

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# QRBD - QUARTERLY REVIEW OF BUSINESS DISCIPLINES

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A JOURNAL OF INTERNATIONAL ACADEMY OF BUSINESS DISCIPLINES

## FROM THE EDITORS

This issue of *Quarterly Review of Business Disciplines*, begins with the research of Mohammad Elahee, Tilottama Ghosh Chowdhury, and Farid Sadrieh, Quinnipiac University, who critically re-examine and re-evaluate the concept of consumer ethnocentrism in a two-stage study utilizing evidence from China, France, and the U.S. The research of Ashish Thatte, Gonzaga University, and Vikas Agrawal, Jacksonville University, builds on the study of Thatte, Rao, and Ragu-Nathan's model, which found positive relationships between supply chain management practices, supply chain responsiveness, and competitive advantage. Ali Kanso, The University of Texas at San Antonio; Paule-Emilie Dujour, San Antonio Museum of Arts; and Richard Alan Nelson, University of Nevada, address the strengths and weaknesses of Deepwater Horizon's campaign to influence public opinion and offer ideas on how the oil spill crisis could have been handled differently.

The research of Diane Bandow and Tish Matuszek, Troy University, outlines the Baldrige Leadership framework – specifically addressing vision and values, legal and ethical behavior, and creation of a sustainable organization as an effective way to teach graduate students. The preliminary research of Wonseok Choi, Lawrence Zeff, and Mary Higby, University of Detroit Mercy, focuses on how students use face to face and computer-mediated communications to complete group assignments.

Margaret A. Goralski, *Quinnipiac University*, Editor-in Chief

Kaye McKinzie, *University of Central Arkansas*, Associate Editor

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## **ETHNOCENTRISM IN AN AGE OF RISING POPULISM: PRELIMINARY EVIDENCES FROM THREE CONTINENTS**

Mohammad N. Elahee, Quinnipiac University

Tilottama Ghosh Chowdhury, Quinnipiac University

Farid Sadrieh, Quinnipiac University

### **ABSTRACT**

This paper presents a two-stage study providing a critical re-examination and re-evaluation of the concept of consumer ethnocentrism. In the first stage, the study, building on the extant literature, proposes a broadened definition of ethnocentrism as a multi-dimensional construct, and presents a validated scale for measuring consumer ethnocentrism. In the second stage of the study, the scale is applied to China, France and the US. Based on empirical data collected from 164 respondents from these three countries, the study shows that while consumers in all three countries hold similar views about the appropriateness of buying local as opposed to foreign goods, US consumers score higher than their Chinese and French counterparts with respect to preference for purely domestic brands as well as home-country-branded goods manufactured in foreign countries. The study concludes with a discussion on the implications of the findings on these varying levels of consumer sentiment about different aspects of ethnocentrism. Directions for future research are also provided.

*Keywords:* Consumer ethnocentrism, normative thinking, local brands, lobal brands, foreign brands

### **INTRODUCTION**

*“Our Celestial Empire possesses all things in prolific abundance and lacks no product within its borders. There is therefore no need to import the manufactures of outside barbarians in exchange for our own produce.”*

— *Qianlong Emperor’s Second Edict to King George III of England, 1792*

More than two centuries have elapsed since this fateful rebuke from the leader of a moribund China to his counterpart in a rising power whose imperial reach would soon extend throughout Asia. Since then, China has risen from its ashes, conquering markets around the world, leveraging and amplifying the seemingly inexorable and triumphant march of globalization. Former European colonial powers such as Britain and France have seen their power ebb and a former colony, the United States, has apparently reached its zenith. Oddly, however, the emperor’s smug words do not seem anachronistic. Indeed, despite living in an increasingly interdependent world, many across the globe do seem to prefer their domestic products over foreign products, a tendency known in marketing parlance as ‘consumer ethnocentrism’. It is therefore not surprising that consumer ethnocentrism (CE) is a widely researched topic in consumer behavior as well as in international marketing.

The publication of the “*Consumer Ethnocentrism Scale*” (CETSCALE) by Shimp and Sharma (1987) seems to have spurred considerable research interest in CE in different parts of the world. This may be due to the fact that the psychometric properties of the CETSCALE extend far beyond the US where the instrument was originally developed (Durvasula, Andrews & Netemeyer, 1997; Klein, Ettenson & Krishnan, 2006). A cursory search in the ABI database at the time of conducting this study found a listing of 333 scholarly papers that have used CETSCALE in over 20 countries. Researchers have found the prevalence of consumer ethnocentrism in both developed countries such as the US, West European countries, Japan, (Bilkey & Ness, 1982; Netemeyer, Darvasula & Lichtenstein 1991; Evanschitzky, Wangenheim & Blut, 2008) and developing countries such as Albania (Koksal & Tatar, 2014), Bangladesh (Chowdhury, 2015), China and Russia (Parker, Hytco & Hermanns, 2016)); Israel (Shoham & Brencic, 2003) to name but a few.

It should be recalled here that the construct CE is derived from the general notion of ethnocentrism proposed by Sumner (1906) and is built around two inter-related facets of consumers’ psyche: 1) a tendency to view one’s own country and domestic products as superior to foreign countries and imported products, and, consequently 2) showing preference for purchasing domestic goods over foreign goods. An implicit normative aspect present throughout the scale items is the view that the purchase of domestic goods is patriotic and that of foreign goods is unpatriotic and even unethical.

Although the existence of CE in different parts of the world as measured by the CETSCALE is well documented, significant changes have occurred in how goods are produced, promoted, and purchased since the publication of this widely used instrument. The emergence of the Internet, the removal of barriers in international trade, the rapid dissemination of information, and the standardization of marketing practices across countries have created a “global consumer segment” (Hassan & Katsanis, 1991). In addition, the increasing incidence of offshore manufacturing, the growth of global supply chains, and the availability of home-country-branded but foreign made products, hereafter “lobal brands”, have greatly diminished the validity of “*Made in...*” labels (Baker & Michie, 1995; Baughn & Yaprak, 1993; Chao, 1993). These developments may call into question the premise on which the whole notion of CE is built. We therefore argue that the profound changes of the last 30 years, especially with respect to how products are made in multiple countries, call for a revised and expanded scale to capture the sentiment of today’s consumers. We also posit that CE is not a unidimensional construct as envisioned in the CETSCALE, but a multi-dimensional construct.

In today’s turbulent business environment crisscrossed by contradictory currents- one promoting globalization and openness and the other, economic nationalism, thwarting the same- it is possible that consumers in one country may harbor certain aspects of CE while consumers in another country exhibit some other aspects of CE. It is thus imperative for researchers and practitioners to develop a more nuanced understanding of consumer ethnocentrism. To gain this understanding, this study sets out three objectives. First, it attempts to provide a critical re-examination and re-evaluation of the very concept of CE. Building on the extant literature, it proffers a broadened definition of CE and a new framework conceptualizing CE as a multi-dimensional construct. Second, it proposes and validates a refined scale for measuring CE that would capture the multi-dimensionality of the construct. Third, by using the newly validated and expanded scale of consumer ethnocentrism (expanded CETSCALE hereinafter), this study examines the attitudes of Chinese, French, and US consumers toward *local* and *lobal* [home-country brand, but manufactured elsewhere] brands vis-à-vis foreign brands. This paper focuses on these three

countries across three continents in recognition of their size and relative importance in the global marketplace, which will be discussed in greater detail later in the paper.

## THEORETICAL BACKGROUND

It is well established that international marketing research lags behind practice in the field (Gummesson, 2014, 2002; McDonald, 1983). This inability to accurately reflect and inform the most current practices in marketing may be attributed in part to the use of inappropriate scales that compromise the verity of results. The CETSCALE is a textbook example of this problem (Douglas & Nijssen, 2003). A major flaw of the CETSCALE, as demonstrated by Sharma (2015), is the disconnect between its conceptual definition and how it is operationalized. Sharma points out that even though consumer ethnocentrism was defined as a set of beliefs by Shimp and Sharma (1987), 16 of the scale's 17 items focus on normative and broad economic aspects and only one item is related to consumer beliefs. Sharma (2015) further posits that this emphasis on socio-normative and economic aspects - subject to change over the years, limit the generalizability of the CETSCALE over time. The CETSCALE was also found to be unable to capture the variations observed in the level of consumer ethnocentrism across different cultural/environmental contexts (Vida, Dmitrovic & Obadia, 2008), thus further limiting its generalizability. Despite these flaws, the CETSCALE, as noted earlier, continues to be used extensively by researchers.

A number of recent studies have attempted to extend the CETSCALE with multi-dimensional constructs. For example, in his revised scale, Sharma (2015) proposed three constructs, which he called: 1) 'affective reaction' (affinity for domestic products and aversion toward foreign products), 2) 'cognitive bias' (evaluative bias in favor of domestic products), and 3) 'behavioral preference' (rejection of foreign products and acceptance of domestic products). In another study, Siamagka and Balabanis (2015) offered, from a social identity perspective, five elements: 1) pro-sociality, 2) cognition, 3) insecurity, 4) reflexiveness, and 5) habituation. In an earlier study, Mavondo & Tan (1999) conceptualized a three dimensional scale with a moral, a cognitive, and an economic component. While these recent studies have largely confirmed the multi-dimensionality of ethnocentrism, none of them considers the hybrid nature of many brands, i.e., goods produced in one country, but sold under the brand originating in a different country. Our scale attempts to rectify these omissions. This inclusion of home-country-branded goods produced in another country, which we label as "Lobal Brands"- combining 'local' with 'global' in our scale, is crucial given the growing importance of cross-border supply chains that facilitates manufacturing a product in multiple countries. Although ethnocentrism has been studied in branding related contexts before (e.g., Lee & Mazodier, 2015; Lee, Phau & Roy, 2013; Hamin. Baumann & Tang, 2013), we make branding more prominent by distinguishing among purely local brands (i.e, goods manufactured in home country and selling under a local brand), foreign brands, and lobal brands (home country branded goods produced in foreign countries), a necessary 21<sup>st</sup> century distinction not found in previous research on consumer ethnocentrism.

Based on their review of CE studies conducted in the US in the 15-year period from 1994 to 2008, Lumb and Kuperman (2012) found the reported CETSCALE scores to be very stable over this extended period of time. A substantial number of studies have found a link between CETSCALE scores and intended purchase behaviors (e.g., Acharya & Elliott, 2003; Evanschitzky *et al.*, 2008; Watson & Wright, 2000). The overwhelming evidence linking CETSCALE scores to purchase intention is very important and relevant for marketing strategists planning to compete in markets

with both foreign and domestic competitors and deciding whether to position their brands as foreign or domestic (Klein, 2002).

### **FIRST STAGE: RECONCEPTUALIZATION AND VALIDATION OF THE CETSCALE**

As noted earlier, we posit that consumer ethnocentrism is a multifaceted construct and the unidimensional CETSCALE cannot adequately capture different aspects of consumer ethnocentrism. In today's interconnected world, there are many brands that are produced in multiple locations allowing manufacturers to take advantage of lower costs and/or gain greater access to foreign markets. Since ethnocentrism influences purchase decision (Bilkey & Ness, 1982), it is imperative for marketers to better understand targeted customers' ethnocentrism and general attitude toward buying foreign products as opposed to local brands. Marketers also need to understand whether consumers perceive brands as containing a unique message or are simply a carrier of the country-of-manufacturing effect. Based on our expansive view of CE, we propose that the consumer ethnocentrism has three separate dimensions, as explained below:

**Normative Thinking Dimension:** We define the *normative thinking* dimension as consumers' normative thinking toward their own country and national market and its domestic products vis-à-vis foreign products. Balabanis, Diamantopoulos, Mueller and Melewar (2001) show that consumers' ethnocentrism is largely driven by their patriotism and nationalism. Similar views were also supported in some prior studies (e.g., Yaprak & Baughn, 1991) that illustrated how nationalistic feelings may lead consumers to think buying foreign products is not right. We posit that it is the consumer's normative thinking that shapes his/her attitude toward the appropriateness of buying foreign products. It should be clarified here that this dimension does not examine the actual purchase intention of consumers- it simply focuses on consumers' thinking about the appropriateness of buying foreign goods as opposed to domestic goods. Such normative thinking, which is the first dimension of our ethnocentrism construct, captures the deeper conviction about what is right or wrong, or patriotic or unpatriotic when it comes to the purchase of foreign and domestic products. An example of a measurement item from our scale is: *It is not right to purchase foreign-made products, because it puts Americans out of jobs*).

**Preference for Purely Local Brands:** We define 'Purely Local Brands' as those goods which are produced in the home country under a brand name that has also originated in the home country. For example, Wolverine is an American brand and all Wolverine boots are made in the US. Therefore, Wolverine would be an example of a purely local brand in the US. Consumers' perceptions about purely local brands versus home country branded but foreign manufactured products and also purely foreign brands (i.e., goods manufactured in foreign countries under a brand name originating in a foreign country) capture their sentiments about both the country of origin and country of manufacturing. We argue that feelings of economic insecurity, inability to cope with rapid changes, uncertainty about the future, and eroding standards of living, which were once the predicament of the poor, are now threatening to engulf the more vulnerable members of the middle class (Edsall, 2017). During these times of upheaval, sentiments of nationalism and perceptions of real or imagined foreign perils, dormant during years of relative stability and prosperity, may revive and find their expression at the ballot box as well as in the marketplace, in the form of populism and consumer ethnocentric behavior respectively. Therefore, we posit that certain consumer segments would prefer local brands over foreign brands. The sensitivity of consumers to the country of manufacturing when considering only local brands is at the core of

the second dimension of our consumer ethnocentrism scale. An example of a measurement item of this dimension would be: *American brands made in the U.S., first, last, and foremost*. For the sake of brevity, we label this dimension as “*Purely Domestic Brands*”

**Preference for *Lobal Brands*:** Drawing from the terms ‘**Local**’ and ‘**Global**’, we define ‘*Lobal Brands*’ as those goods that are manufactured in a country (or countries) that is (are) not the home country of the brand under which they are produced. In other words, we label home country branded goods manufactured elsewhere as “*Lobal Brands*”. An example of a lobal brand in the context of the US, i.e., an American Brand made abroad, would be an Apple iPhone made in China. We posit that consumers’ perceptions about goods manufactured in foreign countries may vary depending on whether the brand is domestic or not. This evaluation constitutes the third dimension of consumer ethnocentrism. In others words, we are expanding the scope of consumer ethnocentrism by including in it not just the preference for local brands, but also the preference for lobal brands. An example of a measurement item for this dimension would be: “*American people should always buy American brands irrespective of where the product is manufactured*”.

Of these three dimensions, the first two (normative thinking and perceptions about purely local brands) do exist in the current CETSCALE, but as part of the same dimension. We separated them into two dimensions and then introduced a third dimension concerning preference for lobal brands, which is missing in the current CE literature. Based on above discussion, we formally hypothesize:

**H<sub>1</sub>:** *The construct consumer ethnocentrism has three dimensions: preference for purely local brands, preference for lobal brands, and normative thinking.*

### **Validating the Scale**

During the first stage of our research, we undertook a comprehensive review of the extant literature to discuss the issues related to ethnocentrism and the emergence of domestically branded foreign made products with our colleagues who are active in research in the area of consumer behavior. During this validation stage, our research was confined only to US consumers. Our efforts resulted in developing a 20 item instrument (see Appendix 1) to capture the three aforementioned dimensions of consumer ethnocentrism: The items of the scale were mainly developed from previous work on ethnocentrism by P. Sharma (2015), Shimp and Sharma (1987) and ‘country-of-origin effect’ (indicated by “Made in...”) by Bilkey and Ness (1982). The 20 item instrument was first used during the first phase of the study and revised based on the results of this phase for its subsequent application in the second phase of the study.

### **Methodology During the First Stage of the Study**

The first stage of our research was aimed at validating the instrument and involved a study sample inclusive of thirty-six participants, who were all business students enrolled in a university in the Northeastern region of the US. The use of student sample is a standard practice for scale validation (Sharma, 2015). We used Structural Equation Modelling via Amos 24.0 to clarify the multi-dimensional aspect of ethnocentrism in this phase. The participation was anonymous and voluntary and no incentive was given to students for their participation.

## Results of the First Stage

*Confirmatory Factor Analysis and Reliability:* The measurement model with all the three constructs (three sub dimensions of the proposed ethnocentric scale) was subjected to confirmatory factor analysis. The model fit was found to be satisfactory. The Comparative Fit Index (CFI) was .95, the Incremental Fit Index (IFI) was .96, the Tucker Lewis Index (TLI) was .93, and RMSEA was .046;  $\chi^2(51) = 54.8$ , *ns*. All of the factor loadings used in the final model were highly significant ( $p$ 's < .01). Non-significant factor loadings in the original model were dropped from the final model. Thus, we started with seven measurement items for normative thinking, eight for the purely domestic products, and five for the global products dimensions, and ended with four measurement items for normative thinking, five for the purely domestic products, and three for the global products dimensions (see Appendix 2 for final scale items). Further, regarding internal consistency reliability, Cronbach's  $\alpha$  for all three multi-item constructs satisfactorily exceeded the desired level of .70 (Nunnally, 1978) and composite reliability was also highly satisfactory (all greater than 0.90).

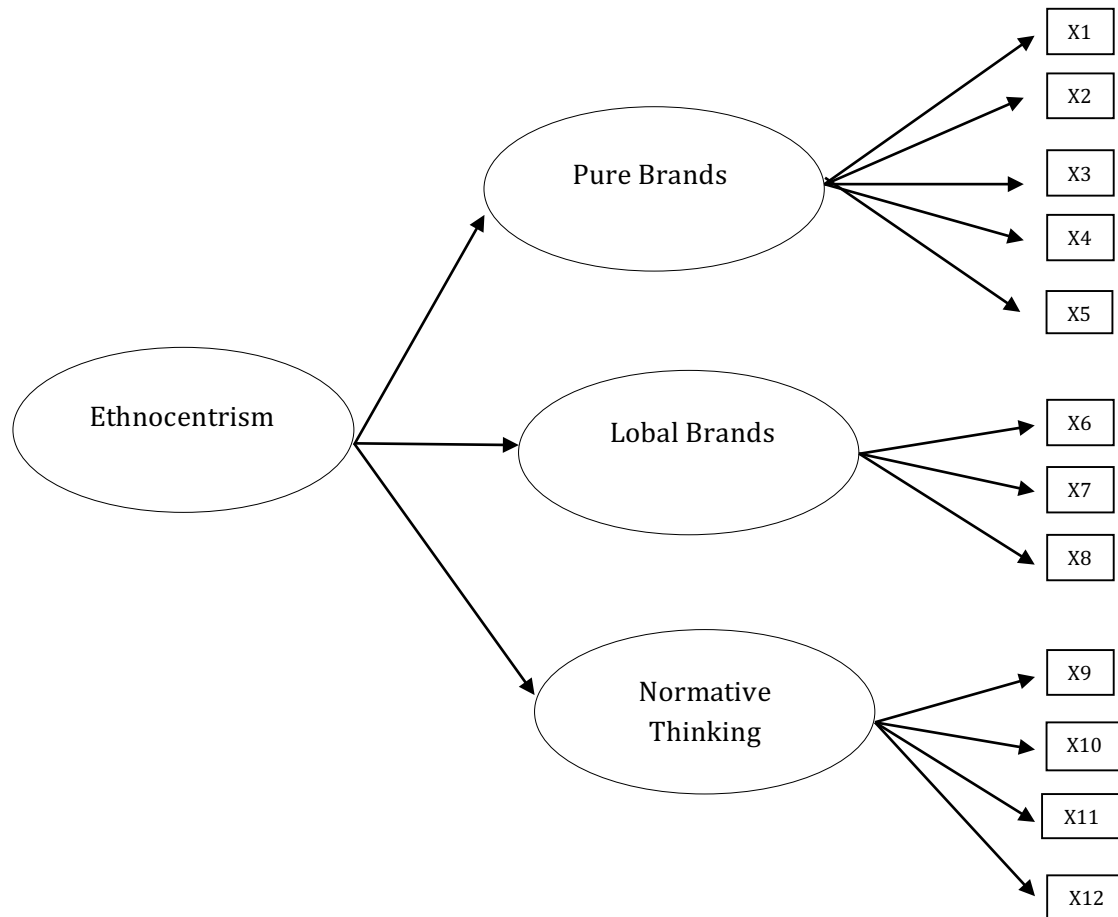
Discriminant validity was ascertained by investigating whether the shared variance (i.e., squared intercorrelation) between each pair of constructs was less than the average variance extracted from the items by each individual construct (see Fornell and Larcker 1981). All the three possible pairs of constructs did conform to Fornell and Larcker's norm. Specifically, the shared variance between normative thinking and pure dimension (.10) did not exceed the average variance extracted by each of these two latent constructs from their respective items (.68 and .88, respectively). Further, with regard to the discriminant validity between normative thinking and hybrid dimension, their shared variance was .12, whereas the average variance extracted by these latent constructs from their respective items was .68 and .78, respectively. And, the shared variance between hybrid and pure dimension (.29) did not exceed the average variance extracted by each of these two latent constructs from their respective items (.78 and .88, respectively). The measurement model hence showed satisfactory discriminant validity.

*Structural Model:* Since the measurement model was found to be satisfactory, the hypothesized structural model shown in Figure 1 was estimated. This was a model inclusive of a second order latent variable (ethnocentrism). A second-order latent variable is a latent variable whose indicators are themselves latent variables and consequently have no measured indicators (Kenny, 1994). As our objective is to show that the ethnocentric scale should have three sub dimensions, we used such a second order latent variable model. The model fit the data quite well. The CFI was .93, the IFI was .95, the TLI was .89, and RMSEA was .056;  $\chi^2(52) = 57.6$ , *ns*. The multi-level model revealed significant support for the relationships hypothesized between ethnocentrism and the three sub-dimensions, namely, normative thinking, pure brands, and hybrid brands. Specifically, the data confirmed significant positive relationships between ethnocentrism and normative thinking, purely domestic products, and global products ( $ps < .01$ ).

The results thus support  $H_1$  that the ethnocentrism construct has three dimensions. Our proposed model was compared against a unidimensional ethnocentric model (see figure 2). As expected, the fit for the unidimensional model was poor- yielding a CFI score of 0.48, an IFI score of 0.60, a TLI score of 0.26, and an RMSEA score of 0.15;  $\chi^2(55) = 95.6$ ,  $p < .001$ .

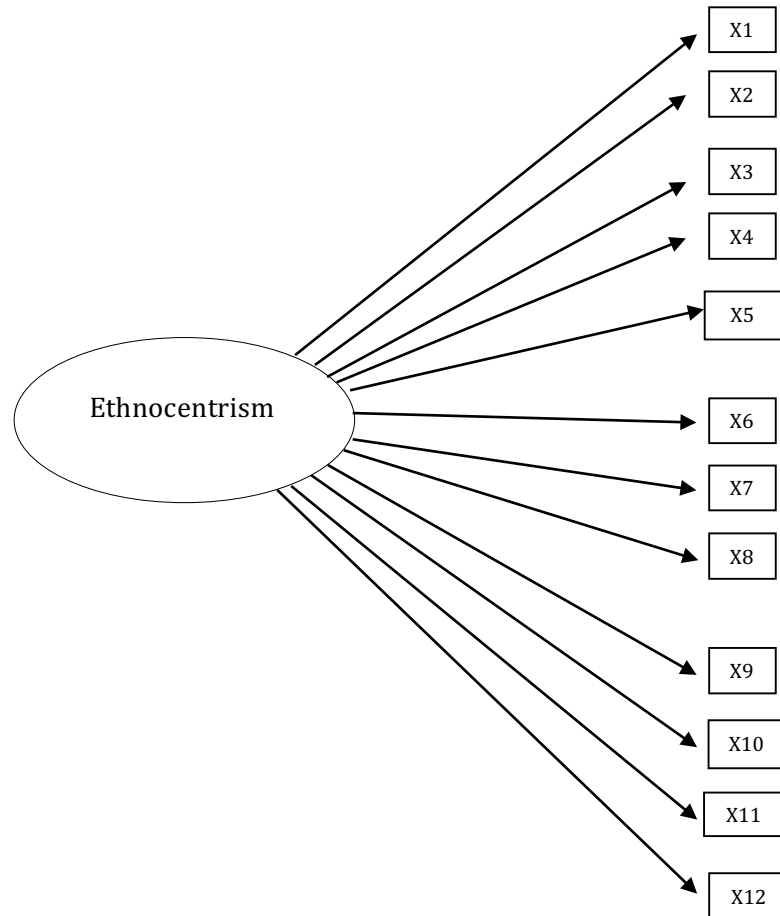
Figure 1

A Structural Model of the Relationships between Ethnocentrism and its Three Dimensions



**NOTE:** All measurement indicators are denoted by  $x_i$  ( $i = 1$  to  $12$ ). Please refer to Appendix 2 for descriptions. All parameter estimates are significant ( $p < .01$  with the exception of  $x_7$  at  $p < .05$ ).

Figure 2  
Comparative Uni-Dimensional Model of Ethnocentrism



**NOTE:** All measurement indicators are denoted by xi ( $i = 1$  to 12). Please refer to Appendix 2 for descriptions.

To reconfirm validating model fit once more, we conducted all similar analyses mentioned above with the integrated data from China, USA, and France in the second stage of the study ( $n = 164$ ). As expected the multi-dimensional ethnocentric model fit the integrated data quite well too. The CFI was .93, the IFI was .93, the TLI was .90, and RMSEA was .086;  $\chi^2(52) = 136.32, p < .001$ . This once more shows support for our H1.

Specifically, the model fit the French data very well. The CFI was .93, the IFI was .93, the TLI was .90, and RMSEA was .077;  $\chi^2(52) = 89.23, p = .001$ . Once again, for US data, the model fits very well. The CFI was .90, the IFI was .91, the TLI was .85, and RMSEA was .088;  $\chi^2(52) = 101.97, p < .001$ . However, the model fits the China data moderately. The CFI was .73, the IFI was .76, the TLI was .59, and RMSEA was .16;  $\chi^2(52) = 120.5, p < .001$ . Overall, though the model fits the data quite well, confirming our scale validation for the proposed multi-dimensional



ethnocentric construct once more [for integrated data: CFI was .93, the IFI was .93, the TLI was .90, and RMSEA was .086;  $\chi^2(52) = 136.32$ ,  $p < .001$ ].

## **SECOND STAGE: EXAMINING ETHNOCENTRISM AND ITS IMPACT IN THREE CONTINENTS**

Once the validity of our new scale was established, we turned to the main objective of the study by proceeding to administer the validated scale in three countries across three continents. The selection of China, France, and the US was based on several reasons. First, each of these three countries represent an important world market. The US is the largest consumer market in the world, followed by China while France is the sixth largest consumer market in the world (World Bank, 2016). Given the size of their economies, many brands are likely to have originated in these countries. Also, the large number of consumers in these markets attract many foreign branded products. The significance of the results of our study for marketers is thus magnified in proportion to the size of the market.

In addition, these three countries represent very different cultures that are very distinct from each other. Although France and the United States share some cultural roots, their respective cultures have diverged and developed in dissimilar ways. Culture imbues the mental processes that are triggered when consumers think about the appropriateness of buying foreign products. Having the study repeated in three countries with different cultures allow us to gain a better understanding of the construct and its effect in different environments.

Related to the culture of a nation is its history. The collective memory of a population shapes its views of the outsider and the degree of attachment to ethnocentric views. A nation having suffered from humiliating defeats and a shortage of resources, such as China, is likely to develop a historical consciousness that sets it apart from a former colonial power like France, or a resource rich and ascendant country like the United States.

The US, China, and France are geographically quite far from each other, thus giving our study a wide geographic coverage. The dissimilarities between the three countries extend to the evolution of their political economies and the role of marketing. China has had a long experience with central planning, during which marketing in general and branding in particular were practically non-existent. In contrast, marketing has a long history in the US and US consumers are quite sophisticated in their evaluation of corporate marketing messages. The French, on the other hand, have always relied on the state to take an active role in regulating economic activity in general and monitoring marketing practices in particular. Finally, the level of economic development is another distinctive characteristic separating at least one of the countries (China) from the other two. It has been shown that in developing and/or transitional economies like China, the construct of consumer ethnocentrism retains its validity (Klein, Ettenson & Krishnan, 2006). It has been suggested that people living in developing countries are more ethnocentric than those in developed countries (Lindquist, Vida, Plank & Fairjurst, 2001; Sharma, Shimp & Shin, 1995), although the evidence is mixed since there are also differences within developing countries and developed countries (Javalgi, Khare, Gross & Scherer, 2005). It may be that China, as a rapidly developing country, will have similar levels of consumer ethnocentrism as the more developed countries. In sum, the

difference in the level of economic development adds another dimension to enrich and inform our understanding of consumer ethnocentrism across three continents.

## Hypotheses

Existing literature suggest that despite growing interdependence among countries, consumers still harbor ethnocentric views and prefer domestic products over foreign products. As noted earlier, part of this reason might be our innate tendency to safeguard our self-interests. Consumers do worry about the impact of foreign products on their employment, national sovereignty and economic well-being (Edsall, 2017). Numerous studies confirm the presence of consumer ethnocentrism in different parts of the world including both developed and developing (Bilkey & Ness, 1982; Chowdhury 2015; Evanschitzky *et al.*, 2008; Javalgi *et al.* 2005), which implies consumers' preference of local brands over foreign brands. Consistent with existing literature, we posit that respondents in all three countries in our study- China, France and the US, would prefer their local brands over foreign brands. Consistent with the findings in the extant literature, we hypothesize:

**H<sub>2</sub>:    *There will be no significant differences with respect to the preference for local brands among the respondents from the three countries.***

Separated by two oceans from the rest of the world, the American people have always viewed their country as special. The idea of American exceptionalism remains to this day a deeply ingrained conviction among many Americans. Alternating between periods of isolationism and expansionism, American history is replete with actions rooted in that exalted self-image. From the nineteenth century foreign military adventures justified in the name of Manifest Destiny to the twenty first century wars, America has leveraged its hard power to reshape the world in its own image, albeit with mixed results. For the most part of history, the US Economy was quite insular and self-reliant. After the end of the Second World War, with the European economies in tatters, American companies enjoyed significant advantage over foreign producers and the US emerged as an economic, as well as political and military superpower.

Despite being a country of immigrants, the US has often showed distrust toward foreigners and many US administrations pursued policies that were unilateral at best and isolationist at worst (e.g., Founding Fathers' reluctance to commit to permanent alliance, the US refusal to join the League of Nations, the US withdrawal from the Kyoto Agreement and the Paris Agreement on Climate Control, etc.). Even though the current phase of globalization has largely been made possible by US policies and institutions that were developed and nurtured by the US, such as the United Nations, World Bank, International Monetary Fund, the World Trade Organization, there has always been a deep current of scepticism or even hostility the US populace toward such global institutions. Time and again, the American electorate has not hesitated to repudiate their country's international commitments and display protectionism, a tendency that was imbedded in the populism reflected in the results of the 2016 US Presidential elections. To be sure, populism, defined as a belief in the right of the common people to wrest power from a cosmopolitan political and economic elite, is not new in US history. However, its recent ascendancy and triumph at the ballot box has demonstrated the enduring power of protectionism in this age of globalization.

The contrast between China and the United States is stark. Although China has catapulted its economy to become the second largest in the world, thanks to double digit annual growth rates, China is still considered a developing country. As noted earlier, research has suggested that consumer ethnocentrism is higher in developing countries compared to developed nations (Lindquist *et al.*, 2001; Sharma, Shrimp & Shin, 1995 in Javalgi *et al.* 2005). However, the rapid changes in China over the last decades may have resulted in the adoption of less ethnocentric attitudes (Javalgi *et al.*, 2005; Parker, Haytko & Hermans, 2011). In particular, as the country becomes more industrialized and urban, income level increase and people gain access to higher levels of education, ethnocentrism may decrease.

France has been called a “country of paradoxes” (Javalgi *et al.*, 2005). Although the French harbor a fierce pride in all that France has produced, from the arts to its leading corporations (Javalgi *et al.*, 2005; Yapp & Syrett in Javalgi *et al.*, 2005), they also have a long tradition of exchange with outsiders. France had colonies all over the world and had exposure to different cultures for many centuries. Although French people often displays a nationalistic streak and resort to protectionist measures with respect to foreign investment and immigration, the country, not unlike other European countries, has always been open to foreign products. Part of this may be attributed to the fact that historically many European countries were not self-sufficient in food production and had to rely on imports (Morrissey, 1982)

Based on the above discussion, we argue that Chinese and French consumers are more accepting of foreign products as compared to their US counterparts. Hence, we hypothesize:

**H<sub>3</sub>:     *US respondents would score higher for the normative thinking aspect of ethnocentrism than French and Chinese consumers.***

Outsourcing production to other countries, although a very common practice across the world today, has a longer history in the United States than in France. Perhaps due to less rigid regulation, a more competitive market or weaker trade unions, many American companies were able to embrace the practice in their efforts to remain competitive. US consumers, who are value-conscious and used to a highly transparent and competitive domestic market, seem to attach more weight to the brand than to the actual location of manufacture. Perhaps the long history of brands and branding and more generally the sophistication of marketing practices in the US, has contributed to the emergence of discerning consumers. Even though they prefer their own products to foreign products, US consumers connect more to the brand than to where a product was made. For them, Nike, Apple, IBM, etc., remain essentially American goods, even when produced abroad.

In France, on the other hand, the private sector has had to adjust and adapt to the limitations of a mixed economy. Until very recently, the state exerted considerable power and influence in shaping economic decisions by corporations. Although in the face of global competition, the country has tried to move toward greater liberalization of its economy, these attempts face fierce opposition, in particular from powerful trade unions. Culturally the French are more collectivistic than Americans and expect the state to intervene to ensure social justice. Reflecting many constituents’ feelings, the late French president Mitterrand referred to foreign imports from developing countries as “social dumping”, noting that employers in these countries did not have to provide the same

social benefits to their workers that the French welfare state mandates. Under these circumstances and with this cultural mindset, it is expected that French consumers take a less sanguine view toward outsourcing and be more critical and unforgiving toward their country's corporations who engage in this practice. Prior to economic reforms initiated by China's leader Deng Xiao Ping in the late 1970's, Chinese brands did not exist. In the 1980's, as demand for goods increased rapidly, branding was still not a priority for Chinese corporations. In the 1990's, branding became important, as foreign goods and foreign brands vied for the Chinese consumer's Yuans. Associating these brands with higher quality, the Chinese consumers exhibited a highly brand conscious behavior. Faced with foreign competition, Chinese producers invested in the creation and development of domestic brands. These brands are starting to become more recognized (Parker, Haytko & Hermans, 2011). Some studies indicate the rising popularity of domestic brands (Ewing, Napoli, Pitt & Watts, 2002 in Parker, Haytko & Hermans, 2011) and even the emergence of "brand nationalism" among the Chinese (Crocker & Tay, 2004). As wages increase and the cost of production rises in China, Chinese manufacturers are bound to turn to outsourcing some components of their products to other countries. In the process, these producers may gain in terms of cost efficiency, but they risk to devalue the image of their products in the eyes of the Chinese consumers. The aforementioned "brand nationalism" is likely to be inextricably linked with the product being manufactured in China. Western branded products manufactured in a developing country will still carry the image of a high quality good, in the eyes of the Chinese consumers, thanks to the power of the brand. However, a Chinese product, having so recently overcome the association with poor quality manufacturing, and carrying a relatively newly established brand is unlikely to find favor among Chinese consumers if it is manufactured in a poor and less developed country.

Although Chinese consumers are known to have preference for foreign brands originating from developed countries over local brands (Zhou & Belk, 2004), Lee, Phau, and Roy (1993) show that Chinese products are now perceived to be on par with Western products if it is supported by a strong local brand. Chinese brands who are now moving their productions offshore to reduce cost obviously would go to countries which are less developed than China. Chinese consumers may not have positive country attitude about such countries. Moon and Jain (2002) demonstrated that country attitude of consumers influences their preference for local brands over foreign brands. It is thus likely that Chinese consumers, while preferring established foreign brands from Western countries over local brands, may not like their local brands because of their unfavorable country attitude toward countries that are less developed than China. Moreover, Kwok, Uncles and Huang (2006) show that although Chinese consumers are increasingly displaying greater preference for local brands, such preference is not reflected in their purchase behavior- they continue to prefer foreign brands from developed countries.

Based on above discussion, we argue that while US consumers are willing to buy local brands, their French and Chinese counterparts may not show similar enthusiasm toward their local brands. Formally, we hypothesize that:

**H<sub>4</sub>:     *US respondents would exhibit higher preference for local brands than Chinese and French respondents.***

## Methodology during the second phase of the study

During the second stage of our study, we collected data in each country using a snow-ball sampling method. We initially contacted a few people in each of the focus countries whom we knew. We sent them an anonymous online survey and requested them to fill it out and also to forward our request to their friends and colleagues. We set an arbitrary cut-off date for our data collection. Our efforts yielded 49 usable responses from China, 65 usable responses from France and 50 usable responses from the US. Similar to the first stage, the participation in the second stage was also completely anonymous and voluntary and no incentive was given to the respondents for their participation.

## Results of the Second Stage of the Study

Our respondents across the three countries were very similar except for age. In China, 86% of our respondents were female, and 14% were males. 36% of our respondents had obtained graduate degrees and another 29% had bachelor's degrees. 86% of our Chinese respondents were between the 18-24 years age range. In France, 62% of our respondents were female and the remaining 38% were male. 25% of our French respondents had graduate degrees and another 40% had bachelor's degrees, and the remaining 35% had high school degrees. 94% of our French respondents were between the 18-24 years age range. In the US, 69% of our respondents were female and 31% of them were male. 28% of our US respondents had graduate degrees, 31% bachelor's degree; and the remaining 41% of our US respondents had some college/associate degrees. 86% of our US respondents categorized themselves as white. Our US respondents were evenly distributed between the different age brackets between 18-64 yrs.

In the second stage of our study, all three data sets from the three countries ( $n_{USA}=50$ ,  $n_{FRANCE}=65$ ,  $n_{CHINA}=49$ ) were combined to run Independent sample t tests for the ethnocentric scores in order to examine our hypotheses. First, in case of preference for the local brand, there were no significant differences between the US and the Chinese respondents (4.58 vs. 4.24,  $t(df=97) = 1.20$ ,  $p > .2$ ), the US and the French respondents (4.58 vs. 4.38,  $t(df=113) < 1$ ,  $p > .4$ ), and the Chinese and the French respondents (4.24 vs. 4.38,  $t(df=112) < 1$ ,  $p > .5$ ). This lends support to H2. Second, US respondents exhibited significantly higher ethnocentric scores for the normative thinking aspect of ethnocentrism compared to the Chinese (3.88 vs. 2.79,  $t(df=97) = 3.89$ ,  $p < .001$ ) and the French (3.88 vs. 2.87,  $t(df=113) = 3.59$ ,  $p = .001$ ), thus supporting H3. The Chinese and the French had equivalent normative thinking scores ( $t(df=112) < 1$ ,  $p > .6$ ). Third, supporting H4, the US respondents had significantly higher ethnocentric scores for local brand preference compared to the Chinese (4.15 vs. 3.38,  $t(df=97) = 3.63$ ,  $p < .001$ ) and the French (4.15 vs. 3.09,  $t(df)=113) = 5.36$ ,  $p < .001$ ). The Chinese and the French had equivalent local brand preference scores (3.38 vs. 3.09,  $t(df=112) = 1.46$ ,  $p = .15$ ). Therefore, we found significant statistical support for all our hypotheses.

## DISCUSSION

Consumer ethnocentrism is a complex and dynamic phenomenon that requires a nuanced understanding of the construct's different components. To gain this understanding, we conducted two-stage study that was reported in this paper. Our research allowed us to delineate three distinct dimensions of the consumer ethnocentrism construct- normative thinking, preference for local

brands, and preference for local brands- and explain how they shape consumer perceptions and purchase intentions. We administered this revised and expanded scale in three countries located in three continents who are culturally very different from each other. Our analysis support the three hypotheses we tested in the second phase of the study, showing that consumers in different countries do indeed exhibit varying levels of ethnocentrism about different facets of consumer ethnocentrism. This calls for paying more attention as to how marketers should Taylor their message to different groups of consumers. This is discussed in greater detail in the next section.

Our research makes three major contributions to the existing literature. First, the articulation of a conceptual framework for assessing an expanded view of ethnocentrism encompassing normative thinking as well as preference for local and local brands as opposed to foreign brands contributes to building a sound theoretical foundation for research in this area. Second, the development and validation of a multidimensional scale to capture the expanded reach of ethnocentrism provides researchers with a tool to initiate new inquiries and make more meaningful recommendations to marketers about different types of products. Third and finally, our findings showing how ethnocentrism can manifest itself in varying degrees and dimensions in different countries would encourage researchers to conduct new research in the area of brand messaging that should yield better recommendations for practitioners.

### **Managerial Implications**

The findings of this research have significant implications for marketers. Our results indicate that even in this age of globalization, consumer ethnocentrism manifests itself in different ways and consumers of a given country may exhibit varying degrees of preference for the same good depending on the country of manufacture and under which brand it is manufactured. Marketing messages that judiciously align with the multilayered and country-specific consumer ethnocentrism characteristics can reinforce desirable product perceptions or modify undesirable associations. The empirical support for our first hypothesis confirmed the complexity of the mental processes that are associated with the expanded consumer ethnocentrism construct. The challenge for business is to effectively meet the challenge represented by this complexity by matching it with an informed and sophisticated marketing approach that recognizes country-by-country differences and similarities.

The confirmation of our second hypothesis indicates that at a very basic level, the three countries are indeed similar when it comes to consumer ethnocentrism: consumers in all three countries tend to prefer local brand to foreign brands. The owners of local brands are thus well advised to highlight their brand's home origin, while foreign brand owners need to educate consumers about their product contribution to the local economy. An example is provided by Toyota's advertising campaign showing the number of jobs created by the company in the US.

This kind of marketing campaign is especially crucial in the US market, in light of the confirmation of our third hypothesis which indicates that US consumers harbor deeper normative feelings of ethnocentrism than their counterparts in the other two countries. To the extent that Americans feel that buying foreign goods is unpatriotic or at the least inappropriate, and yet their purchase behavior may be swayed by other considerations (price, quality, etc.) a cognitive dissonance is created that imperils the position of foreign goods. Astute marketers can contribute to mitigate this

dissonance through their marketing messages. The focus on the commitment of the foreign brand to the local communities and job creations and highlighting benefits enjoyed by local employees may be effective communication approaches. A firm may also maximize the benefits afforded by ambiguity and consumer confusion about brands (Samiee, 2005). In the retail business, while Carrefour cannot hide its foreign origins, it is reasonable to assume that very few shoppers at Stop and Shop are aware that the supermarket chain is owned by Ahold of the Netherlands.

Finally, the confirmation of our fourth hypothesis indicates that American consumers consider their lobar products (American brand products produced overseas) more positively than their counterparts in the other two countries view theirs (French or Chinese brands produced outside their home country).

The findings underscore the need for marketers to educate their consumers about the desirability of lobar brands and how such brands actually help save a company by allowing it to lower its costs by manufacturing abroad and consequently remaining competitive with foreign rivals. If consumers understand that lobar brands actually save a firm and adds job to the lobar economy, they may exhibit lower antipathy toward globalization and openness.

To sum up, Chinese and French consumers may be less ethnocentric than their American counterparts along the normative dimension of the construct. For them, the presence or success of foreign made goods is not associated with societal ills. In this sense, those consumers are more pragmatic than their American counterparts. However, the French and Chinese are much less sanguine and much more unforgiving when it comes to local-branded goods made abroad, complicating the task of companies the need to outsource operations to remain competitive in the global market. Consequently, brand messages for lobar products should be couched in local cultural terms and reinforce local connections.

### **Limitations and Future Research**

To the best of our knowledge, this is the first study ever to integrate the key aspect of globalization, specifically, the proliferation of lobar brands in the context of three countries across three continents. Although the findings of our study contribute significantly in advancing the extant literature on ethnocentrism by relating CE with current market realities, similar to any scientific research endeavor, our study also suffers from certain limitations. We did not examine if demographic factors have any impact on the ethnocentric scores of the respondents. Future researchers should examine if there is any difference in the ethnocentric scores of people from different genders, age groups, educational background, and income. We did not examine the socio-cultural background of our respondents. Examining if the socio-cultural backgrounds of the respondents affect their ethnocentrism and purchase intentions may provide new insights for marketers.

CE may vary across type of products as well as lifestyle of consumers. Future researchers should thus consider examining the relationship between product type and level of consumer awareness and lifestyle to their level of CE. As ethnocentrism is closely related to country-of-origin (COO) effect as well as to consumer animosity (Harmeling, Magnusson & Singh, 2015; Hamin, Baumann & Tung, 2013, Moon & Jain, 2002), future researchers should also examine the impact of COO

and consumer animosity on various facets of consumer ethnocentrism and how they affect their purchase decision.

Given that the service sector is becoming increasingly globalized, future researchers should also examine if consumers have different ethnocentric perceptions about services compared to physical products. As marketers increasingly serve culturally diverse consumers in almost every corner of the world, future researchers should also replicate this study in other countries, and especially in countries that receive a large number of immigrants every year such as Australia, Canada, New Zealand, and the UK. Such replications would add external validity to our scale and framework. This study should also be replicated among migrants who, although not naturalized, have lived in their host countries for an extended period of time (e.g., South Asian or Filipino migrant workers in the Middle-East; undocumented migrants in the US; refugees stranded in different countries; expatriates on long-term assignments, etc.).

## CONCLUSION

Despite some limitations, this paper makes significant contributions to the consumer ethnocentrism literature and opens new directions for reflection for both academics and practitioners. This study is just the first step towards a better understanding of the broadened scope of consumer ethnocentrism in a constantly evolving business environment. The more we understand this complex and dynamic phenomenon, the better marketing decisions we will be able to make. It is hoped that this paper would generate further interest among researchers to replicate and extend this study with larger samples and in different parts of the world. New research is likely to clarify further the causes and consequences of consumer ethnocentrism and enable researchers to recommend better marketing strategies to serve consumers with different preferences for different types of brands.

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## APPENDIX 1

### Original Instrument used in the First Stage of the study for Measuring the Model

**Dimension 1 – American “pure” brands**

American people should always buy American brands made in the U.S. instead of those made in a foreign country.

Buy American brands made in the U.S. Keep America working.

American brands made in the U.S., first, last, and foremost.

A real American should always buy American brands made in the U.S.

It is always best to purchase American brands made in the U.S.

Americans should not buy American brands made in a foreign country, because this may cause unemployment.

It may cost me in the long-run, but I prefer to support American brands made in the U.S.

American consumers who purchase American brands made in other countries are responsible for putting their fellow Americans out of work.

**Dimension 2 – American “hybrid” brands**

American people should always buy American brands irrespective of where the product is manufactured.

Purchasing American brands that are made in another country is un-American.

A real American should always buy American brands even when the product is manufactured in another country.

It is always best to purchase American brands, even when they are manufactured in foreign countries.

Purchasing American brands made in another country helps both the local and the foreign business.

**Dimension 3 – Normative thinking**

Only those products that are unavailable in the U.S. should be imported.

It is not right to purchase foreign-made products, because it puts Americans out of jobs.

We should purchase products manufactured in America instead of letting other countries get rich off us.

There should be very little trading or purchasing of goods from other countries unless out of necessity. Foreigners should not be allowed to put their products on our markets.

Foreign products should be taxed heavily to reduce their entry into the U.S.

We should buy from foreign countries only those products that we cannot obtain within our own country.

## APPENDIX 2

### Final Instrument Used During the Second Stage of the Study

**Dimension 1 – American “pure” brands [alpha=.82]**

X1: American people should always buy American brands made in the U.S. instead of in a foreign country.

X2: Buy American brands made in the U.S. Keep America working.

X3: American brands made in the U.S., first, last, and foremost.

X4: It is always best to purchase American brands made in the U.S.

X5: It may cost me in the long-run, but I prefer to support American brands made in the U.S. American consumers who purchase American brands made in other countries are responsible for putting their fellow Americans out of work.

**Dimension 2 – American “hybrid” brands [alpha=.77]**

X6: American people should always buy American brands irrespective of where the product is manufactured.

X7: A real American should always buy American brands even when the product is manufactured in another country.

X8: It is always best to purchase American brands, even when they are manufactured in foreign countries.

**Dimension 3 – Normative thinking [alpha=.84]**

X9: Only those products that are unavailable in the U.S. should be imported.

X10: It is not right to purchase foreign-made products, because it puts Americans out of jobs.

X11: Foreigners should not be allowed to put their products on our markets.

X12: We should buy from foreign countries only those products that we cannot obtain within our own country.

**Note:** The word “American” was replaced by “French” when the instrument was administered in France and by “Chinese” when administered in China. Similarly, “U.S.” was replaced by “France” and “China” respectively.

## **EXPLORING SUPPLY CHAIN RESPONSIVENESS EFFECTS ON COMPETITIVE ADVANTAGE OF A FIRM**

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### **ABSTRACT**

This study builds on Thatte, Rao, and Ragu-Nathan's (2013) research model which found positive relationships between supply chain management (SCM) practices, supply chain responsiveness (SCR), and competitive advantage (CA). As such, utilizing regression analyses this paper analyses SCR dimensions as identified in Thatte et al. (2013) to explore how they impact CA and its dimensions. The study finds that operations system responsiveness (OSR) and supplier network responsiveness (SNR) dimensions of SCR contribute to higher levels of CA. SNR and OSR are found to positively influence a firm's ability to compete based on delivery dependability. Key OSR and SNR measures that improve CA and its components are identified and discussed.

*Keywords:* supply chain responsiveness, operations system, supplier network, logistic process

### **INTRODUCTION**

As global supply chains compete with one another, achieving responsiveness in meeting consumers' needs is becoming important for businesses to stay competitive in today's internet powered and competitive business world. Firms need to aptly respond to changing customer needs in order to succeed in today's uncertain environment (Gerwin, 1987; Huber, 1984; Narasimhan & Das, 1999; Ward, P., McCreery, Ritzman & Shamia, 1998) as well as to supply disruptions (Germain, 1989; Lee, 2004; Christopher & Peck, 2004). Consistent with Thatte et al. (2013), this research studies the SCR construct from the customer demand perspective, rather than a supply disruption perspective.

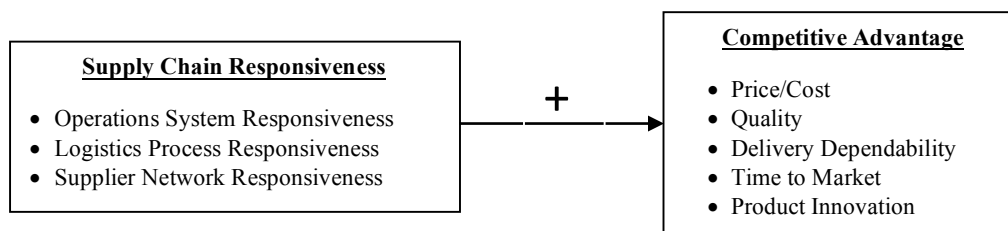
Thatte et al. (2013) dealt with large scale instrument validation and hypotheses testing between SCR, SCM practices, and CA using structural equation modeling and found positive relationship between SCR and CA, SCM practices and SCR, and SCM practices and CA. Although it would be helpful to study the effects of the specific SCM practices on specific dimensions of SCR and CA, such an inclusive study would be large for a single paper and warrants a separate study. This study extends Thatte et al.'s (2013) study by examining the dimension level relationships between SCR and CA to gain insight into how CA can be improved through SCR, in whole as well as in parts. Such dimension level analyses involving SCR and CA is lacking in existing literature and this study aims to fill that gap by offering insight into these relationships. Such an analysis can contribute towards providing more meaningful research implications for gaining CA via optimizing SCR. The relationships among the constructs are tested using regression analyses, using data collected from 294 respondents to a survey questionnaire.

The remainder of this paper is organized as follows. Section 2 presents the constructs, research framework, definitions, and the theory underlying each dimension of SCR and CA. The research methodology is described in section 3. Section 4 presents the results of data analyses while section 5 summarizes the research findings and implications. The study concludes with section 6 with limitations of the study and directions for future research.

## CONSTRUCTS AND RESEARCH FRAMEWORK

Figure 1 presents the framework being investigated in this research. Thatte et al. (2013) developed the SCR construct and a valid and reliable measurement instrument for SCR through rigorous statistical methodologies, including pretest, pilot-test, confirmatory factor analysis, unidimensionality, reliability, validity, and validation of second-order construct.

Figure 1. Research Framework



### Supply Chain Responsiveness (SCR)

SCR is defined as the capability of promptness and the degree to which a supply chain can address changes in customer demand (Holweg, 2005; Prater, Biehl, & Smith, 2001; Lummus, Duclos, & Vokurka, 2003; Duclos, Vokurka, & Lummus, 2003). This responsiveness is an aggregate of three first-order constructs operations system responsiveness (OSR), logistics process responsiveness (LPR), and supplier network responsiveness (SNR). SCR is the ability of the supply chain to rapidly address changes and requests in the marketplace (Holweg, 2005), which implies that speed combined with flexibility results in responsiveness (Prater, Biehl, & Smith, 2001). Thatte et al. (2013) conceptualized and operationalized OSR, LPR, and SNR as three sub-constructs of SCR.

OSR is defined as the ability of a firm's manufacturing system to address changes in customer demand (Thatte et al., 2013). Although it encompasses manufacturing and service operations, this study focusses on firms within the manufacturing industry. In manufacturing operations, it includes the ability to rapidly configure or reconfigure assets and operations of a manufacturing system in order to cope with consumer trends (Wu, 2001; Lummus, Duclos, & Vokurka, 2003), respond to changes in product volume, respond rapidly to unexpected events, effectively expedite emergency customer orders, and an ability to swiftly accommodate special or non-routine customer requests. OSR at each node in a supply chain is an integral component of SCR, since each entity in a supply chain is required to deliver the product or service in a timely and reliable manner, to fulfill customer demands (Duclos, Vokurka, & Lummus, 2003; Lummus et al., 2003; Holweg 2005; Holweg & Pil, 2001; Meehan & Dawson, 2002; Williamson, 1991). The items under this category measure the responsiveness associated with a specific node or firm in a supply chain



(Duclos et al., 2003; Lummus et al., 2003). Measures used to operationalize the OSR construct are: operations system's ability to – respond rapidly to changes in product volume demanded by customers, effectively expedite emergency customer orders, rapidly reconfigure equipment to address demand changes, rapidly reallocate people to address demand changes, and rapidly adjust capacity to address demand changes.

LPR is defined as the ability of a firm's outbound transportation, distribution, and warehousing system (including 3PL/4PL) to address changes in customer demand (Thatte et al., 2013). These activities include warehousing, packing and shipping, transportation planning and management (Ricker & Kalakota, 1999; Duclos et al., 2003; Lummus et al., 2003), inventory management, reverse logistics, order tracking and delivery. This study focuses on the outbound logistics of the focal firm. The responsiveness in the logistic processes is a vital component in the success of a responsive supply chain strategy (Fawcett, 1992). Fuller, O'Conner and Rawlinson (1993) suggest that a firm's logistics system is instrumental in creating value for its customers. This value creation for a firm's customers implies ensuring logistics flexibility (Duclos et al., 2003; Lummus et al., 2003) and speed within the supply chain to serve each distinct customer's needs. Responsiveness components in the logistics system include selecting logistics components that accommodate and respond to wide swings in demand over short periods, adjust warehouse capacity to address demand changes, handle a wide range of products, vary transportation carriers, have the ability to pack product-in-transit to suit discreet customers' requirements, and have the ability to customize products close to the customer (i.e. postponement), and do all of these speedily in order to gain a CA. Hise (1995) maintains that the logistics system of a firm needs to be flexible and responsive in order to be able to adjust its logistics resources rapidly for satisfying market needs. It is also important that firms have easy access to and are able to utilize different modes of transportation to be logistically flexible and responsive (Prater et al., 2001). Lummus et al. (2003) present critical logistics process flexibility aspects of a supply chain, which are vital for SCR. These aspects have been adapted for LPR to form its measures: logistics system's ability to - rapidly respond to unexpected demand change, rapidly adjust warehouse capacity to address demand changes, rapidly vary transportation carriers to address demand changes, and effectively deliver expedited shipments.

SNR is defined as the ability of a firm's major suppliers to address changes in the firm's demand (Thatte et al., 2013). The ability of firms to react quickly to customer demand is dependent on the reaction time of suppliers to make volume changes. A key to responsiveness is the presence of responsive and flexible partners upstream and downstream of the focal firm (Christopher & Peck, 2004). Supply chain networks must be ready to react to any ripple effects due to supply disruptions (Walker, 2005) as well. In order to have a CA, organizations need to meet the changing needs of customers by being able to rapidly supply products, including any demand changes in terms of product volume, mix, product variations, and new product introductions. Meeting these needs requires responsiveness in the supply chain at various stages from the raw materials to finished products to distribution and delivery. Supplier networks are the essential building blocks of a flexible system and their flexibility is an important ingredient of being responsive to customers (Slack, 1991; Holweg & Pil, 2001). In order to be responsive, organizations should be able to select suppliers who can add new products quickly and have suppliers make desired changes. Fisher, Raman and Mccllelland (2000) found that for short lifecycle products, such as fashion apparel, retailers are most successful if they can work with suppliers who can provide initial

shipments of product based on forecasts, but then rapidly increase production to the right style, color, size, etc. based on actual sales. Several studies (e.g. Choi & Hartley, 1996) suggest that supplier selection based on product development capabilities, rapid deployment capabilities or product volume flexibility positively impact the delivery time of new products. Holweg (2005) found that the lack of supplier network flexibility hampered its customer's responsiveness capability. Supplier network flexibility (Slack, 1991) and thus SNR (Thatte et al., 2013) is an important part of SCR. The measures of SNR used in this study are: major suppliers' ability to - change product mix in a relatively short time, consistently accommodate the firm's requests, provide quick inbound logistics to the firm, and effectively expedite emergency orders.

### **Competitive Advantage (CA)**

CA is defined as the "capability of an organization to create a defensible position over its competitors" (Li, Ragu-Nathan, Ragu-Nathan, and Rao, 2006, p. 111). CA comprises of distinctive competencies that sets an organization apart from competitors, thus giving them an edge in the marketplace (Tracey, Vonderembse, & Lim, 1999). CA traditionally involved the choice regarding the markets in which a firm would compete, defending market share in clearly defined segments using price and product performance attributes (Day, 1994). Competition in today's global economy depends on anticipating and quickly responding to changing market needs. Porter's approach to CA centers on a firm's ability to be a low cost producer in its industry, or to be unique in its industry in some aspects that are popularly valued by customers (Porter, 1991). Most managers agree that cost and quality will continue to remain the CA dimensions of a firm (D' Souza & Williams, 2000). Wheelwright (1978) suggests cost, quality, dependability and speed of delivery as some of the critical competitive priorities for manufacturing. 'Time' has been argued to be a dimension of CA in other research contributions (viz: Stalk, 1988; Vesey, 1991; Handfield & Pannesi, 1995; Kessler & Chakrabarti, 1996; Zhang, 2001). There is widespread acceptance of time to market as a source of CA (Holweg, 2005). Price/cost, quality, delivery dependability, and time to market have been consistently identified as important competitive capabilities (Vokurka, Zank & Lund III, 2002; Fawcett & Smith, 1995; White, 1996; Skinner, 1985; Roth & Miller, 1990; Tracey et al., 1999). In a research framework, Koufteros, Vonderembse & Doll (1997) describe competitive pricing, premium pricing, value-to-customer quality, dependable delivery, and product innovation as the five dimensions of competitive capabilities. These dimensions were further described and utilized in other contributions as well (Koufteros Vonderembse & Doll, 2002; Tracey, Vonderembse, and Lim, 1999; Rondeau, Vonderembse & Ragu-Nathan, 2000; Roth & Miller, 1990; Cleveland, Schroeder & Anderson, 1989; Safizadeh, Ritzman, Sharma, & Wood, 1996; Vickery, Calantone, & Droge, 1999, Li et al. 2006). CA has been operationalized in existing literature (Koufteros, Vonderembse, and Doll, 1997; Zhang, 2001) and the measures have been adopted in this study with minor modifications. Based on the study of Koufteros (1995), Zhang (1997), and Li et al. (2006) and as used in Thatte et al. (2013) this study uses price/cost, quality, delivery dependability, product innovation, and time to market as the five dimensions of CA.

## **RESEARCH METHODOLOGY**

This study adopts the SCR instrument developed by Thatte et al. (2013) and the CA instrument developed by Zhang (2001) and Koufteros et al. (1997). The items for these instruments are listed in Appendix A. The unit of analysis in this study is a firm since SCR is dependent on the individual

operating firms within a supply chain. Past studies (ex: Swafford, Ghosh & Murthy, 2006a) have used a similar unit of analysis. Also, a study that encompasses the entire supply chain domain, from raw materials through production/assembly at multiple stages/organizations, through delivery via diverse distribution channels, would be complex, time consuming, and costly.

Large-scale data collection was conducted using a web-based survey grounded on methods of Dillman (2000). E-mail lists were purchased from The Council of Supply Chain Management (CSCMP), Rsateleservices.com, and Lead411.com. Seven SIC codes were covered in the study: 22 “Textile Mill products”, 23 “Apparel and other Textile Products”, 25 “Furniture and Fixtures”, 34 “Fabricated Metal Products”, 35 “Industrial Machinery and Equipment”, 36 “Electrical and Electronic Equipment”, and 37 “Transportation Equipment”. The lists were limited to organizations with more than 100 employees as these organizations were most likely to engage in SCM initiatives. Since the focus of this study is SCM, the target respondents were the operations / manufacturing / purchasing / logistics / materials / supply chain – vice presidents, directors, and managers, as these personnel were deemed to have the best knowledge of the supply chain area. The respondents were asked to refer to their major suppliers or customers when answering the questionnaire. The final version of the questionnaire was administered by e-mail to 5498 target respondents. To ensure a reasonable response rate, the survey was e-mailed in three waves.

The response rate was calculated based on the number of click-throughs the emailing generated and the total number that was converted to a completed survey. After three waves of emailing a total of 714 click-throughs were generated and 294 completes were obtained to provide a good response rate of 41.18%. Response rate based on the click-throughs may represent a better measure for email surveys since bulk emails sent out in this manner are treated as spam by respondents’ organizations’ email program and may never be retrieved or viewed by the target respondent. Since it is highly difficult to track this information accurately, a more appropriate measure would be to base the analysis on the number of people who have visited the site and have had an opportunity to review the request and purpose of this study, and then may have declined to complete the survey based on any number of reasons.

Population characteristics are presented in Appendix B. As can be seen from Appendix B, 11% of the respondents are CEO/President, 45% are Vice Presidents, 25% are Directors, and 19% are titled as Managers. Thus 81% of the respondents (CEOs, VPs, and Directors) are high-level executives, implying a high reliability of the responses received, as these executives have a wider domain (job responsibility) and administrative knowledge. This is consistent with past survey-based research studies in SCM (ex: Frohlich and Westbrook, 2002). The areas of expertise were 11% executives (CEOs/Presidents), 12% purchasing, 22% SCM, 18% distribution/transportation/logistics, 20% manufacturing/production, 10% materials, and 7% belong to other category such as sales. Thus the respondents’ domains cover all key functions across the supply chain ranging from purchasing, to manufacturing, to sales, to distribution. Also, since 33% of the respondents have been with the organization for over 10 years and 21% have been at their organization between 6-10years, implies that majority of the respondents have a comprehensive view of their firm’s supply chain program.

This research did not investigate non-response bias directly since the email lists had only names and email addresses of individuals without the organizational details. This research compares those

subjects who responded after the first e-mailing wave and those who responded to the second/third wave. The succeeding waves of the survey were considered to be representative of non-respondents (Lambert & Harrington, 1990; Armstrong & Overton, 1977). Similar methodology has also been used in prior SCM empirical research (Li, Rao, Ragu-Nathan, and Ragu-Nathan, 2005; Chen & Paulraj, 2004; Handfield & Bechtel, 2002). Chi-square tests ( $\chi^2$  statistic) were used to make the comparisons. No significant difference in industry type (based on SIC), employment size, and respondent's job title was found between these two groups (i.e.  $p > 0.1$ , when testing the null hypotheses: there is no significant difference in the distribution of responses across SIC codes/employment size/job title between groups). Further, Chi-square tests of independence were also performed to observe if the distribution of responses across SIC codes, employment size, and respondent's job title is independent of the three waves when considered independently. No significant difference in industry type (based on SIC), employment size, and respondent's job title was found between each of the three groups / waves.

Thatte et al. (2013) found SCR to have a direct positive impact on CA of a firm and confirmed the assertion in literature that a responsive supply chain in terms of an organization's operations system, logistics, and distribution processes, and suppliers could provide firms with CA on cost, quality, delivery dependability, product innovation, and time-to-market dimensions.

## RESULTS

In order to explore the specific dimensions of SCR that lead to higher levels of CA in terms of price, quality, delivery dependability, product innovation, and time to market, a dimension-level statistical analysis was performed by employing stepwise regression analysis.

### Regression Analysis

Dimension-level analyses were performed utilizing stepwise multiple regression, which is often used in studies that are exploratory in nature (Aron and Aron, 1999). The individual dimensions of SCR are predictors and the study seeks to understand which of these dimensions make meaningful contributions to the overall prediction of CA.

A stepwise regression analysis is performed to determine what dimensions of SCR (viz. OSR, LPR, and SNR) are significant predictors of CA (composite score). Table 1 presents the stepwise regression results of SCR (dimension level) as the independent variable (IV) and CA (composite score) as the dependent variable (DV). Results indicate an overall model of two dimensions of SCR that reasonably predict CA,  $R^2 = 0.181$ ,  $R^2_{adj} = 0.176$ ,  $F(2, 291) = 32.246$ ,  $p < 0.001$ . The model accounted for 17.6% ( $R^2_{adj}$ ) of the variance in CA. A summary of regression coefficients is presented in Table 2 and indicates the two dimensions of SCR in the order OSR ( $\beta = 0.316$ ) and SNR ( $\beta = 0.180$ ) that significantly predict CA. From these results, it is clear that LPR does not contribute significantly to the prediction of CA.

Table 1. Dimension Level Stepwise Regression Results  
Model Summary for SCR Dimensions on CA

Step	<i>R</i>	<i>R</i> <sup>2</sup>	<i>R</i> <sup>2</sup> <sub>adj</sub>	$\Delta R^2$	<i>F</i> <sub>chg</sub>	<i>p</i>	<i>df</i> <sub>1</sub>	<i>df</i> <sub>2</sub>
1. OSR	0.394	0.155	0.152	0.155	53.644	< 0.001	1	292
2. SNR	0.426	0.181	0.176	0.026	9.318	< 0.01	1	291

Table 2. Coefficients for SCR Dimensions (OSR and SNR) on CA

	<i>B</i>	$\beta$	<i>t</i>	<i>p</i>
OSR	0.167	0.316	5.376	0.000
SNR	0.110	0.180	3.053	0.002

The study further examines which SCR dimensions significantly predict CA dimensions by using stepwise regression analysis between SCR dimensions OSR, LPR, and SNR as IVs and CA dimensions price, quality, delivery dependability, product innovation, and time to market as dependent variables DVs. The results are presented in Tables 3-8.

Table 3. Dimension Level Stepwise Regression Results  
Model Summary for SCR Dimensions on Price

Step	<i>R</i>	<i>R</i> <sup>2</sup>	<i>R</i> <sup>2</sup> <sub>adj</sub>	$\Delta R^2$	<i>F</i> <sub>chg</sub>	<i>p</i>	<i>df</i> <sub>1</sub>	<i>df</i> <sub>2</sub>
1. OSR	0.215	0.046	0.043	0.046	14.218	< 0.001	1	292

As observed in Table 3 the results are not significant ( $R^2_{adj} = 0.043$ ) to draw conclusions. It is desired that  $R^2_{adj}$  be at least 0.10 to indicate that the given IV explains at least 10% of the variance in DV, so as to draw any substantial inferences (Mertler and Vannatta, 2002). The results suggest that none of the SCR dimensions predict the ‘price’ dimension of CA when considered by itself.

Table 4. Dimension Level Stepwise Regression Results  
Model Summary for SCR Dimensions on Quality

Step	<i>R</i>	<i>R</i> <sup>2</sup>	<i>R</i> <sup>2</sup> <sub>adj</sub>	$\Delta R^2$	<i>F</i> <sub>chg</sub>	<i>p</i>	<i>df</i> <sub>1</sub>	<i>df</i> <sub>2</sub>
1. LPR	0.192	0.037	0.034	0.037	11.161	< 0.001	1	292

Table 4 indicates that none of the dimensions of SCR predict the ‘quality’ dimension of CA when considered individually, as results are not significant ( $R^2_{adj} = 0.034$ , i.e.  $R^2_{adj} < 0.10$ ) to draw any substantial inferences.

Table 5. Dimension Level Stepwise Regression Results  
Model Summary for SCR Dimensions on Delivery Dependability

Step	<i>R</i>	<i>R</i> <sup>2</sup>	<i>R</i> <sup>2</sup> <sub>adj</sub>	$\Delta R^2$	<i>F</i> <sub>chg</sub>	<i>p</i>	<i>df</i> <sub>1</sub>	<i>df</i> <sub>2</sub>
1. SNR	0.320	0.102	0.099	0.102	33.230	< 0.001	1	292
2. OSR	0.364	0.132	0.126	0.030	10.069	< 0.01	1	291

Table 6. Coefficients for SCR Dimensions (SNR and OSR)  
on Delivery Dependability

	<i>B</i>	$\beta$	<i>t</i>	<i>p</i>
SNR	0.235	0.237	3.905	0.000
OSR	0.164	0.192	3.173	0.002

Tables 5 and 6 indicate that only two dimensions of SCR, in the order SNR ( $\beta = 0.237$ ) and OSR ( $\beta = 0.192$ ), significantly predict ‘delivery dependability’. Results suggest that LPR does not contribute significantly to the prediction of ‘delivery dependability’.

Table 7. Dimension Level Stepwise Regression Results  
Model Summary for SCR Dimensions on Product Innovation

Step	<i>R</i>	<i>R</i> <sup>2</sup>	<i>R</i> <sup>2</sup> <sub>adj</sub>	$\Delta R^2$	<i>F</i> <sub>chg</sub>	<i>p</i>	<i>df</i> <sub>1</sub>	<i>df</i> <sub>2</sub>
1. OSR	0.293	0.086	0.083	0.086	27.474	< 0.001	1	292

Table 7 results indicate that SCR dimensions do not predict the ‘product innovation’ dimension of CA, when considered individually ( $R^2_{adj} = 0.083$ ).

Table 8. Dimension Level Stepwise Regression Results  
Model Summary for SCR Dimensions on Time to Market

Step	<i>R</i>	<i>R</i> <sup>2</sup>	<i>R</i> <sup>2</sup> <sub>adj</sub>	$\Delta R^2$	<i>F</i> <sub>chg</sub>	<i>p</i>	<i>df</i> <sub>1</sub>	<i>df</i> <sub>2</sub>
1. OSR	0.262	0.069	0.066	0.069	21.540	< 0.001	1	292

Finally, Table 8 shows that no SCR dimension predicts CA based on ‘time to market’ ( $R^2_{adj} = 0.066$ ), when considered by itself.

Table 9 summarizes the regression analyses results. Construct-level regression analyses results show that SCR reasonably predicts CA and support structural equation modeling results between SCR and CA found by Thatte et al. (2013). The dimension-level regression analyses results suggest that OSR is the predominant SCR dimension that improves CA on an aggregate basis, followed by SNR.

The study thus did not find support for the impact of SCR dimensions on CA dimensions with the exception of ‘delivery dependability’. This could be attributed to the distribution of the variance explained by the IV on the DV when dimension level analyses are performed, thus leading to the reduced significance of these dimension level analyses. Also, SNR and OSR in that order positively impact ‘delivery dependability’. LPR was not found to impact ‘delivery dependability’. These findings are discussed in the following section.

Table 9. Summary of Regression Analyses Results for CA and its Dimensions

Predictor	Outcome	R <sup>2</sup> <sub>adj</sub>	Sig. (p)
<b>Construct - Level Regression Analysis</b>			
1. Supply Chain Responsiveness (SCR)	Competitive Advantage (CA)	0.259	0.000
<b>Dimension - Level Regression Analysis</b>			
1. Operations System Responsiveness (OSR) 2. Supplier Network Responsiveness (SNR)	Competitive Advantage (CA)	0.176	0.000
1. Supplier Network Responsiveness (SNR) 2. Operations System Responsiveness (OSR)	Delivery Dependability	0.126	0.000

## RESEARCH FINDINGS AND IMPLICATIONS

This study provides researchers an insight about the specific SCR dimensions that positively impact CA of a firm. SCR was found to reasonably predict CA of a firm, supporting the findings of Thatte et al. (2013). The study finds that a firm’s responsive operations system and a responsive network of suppliers can directly lead to higher levels of CA. The results did not find the responsiveness of a firm’s logistics system to contribute significantly to the prediction of CA. One may argue that outbound logistics is post manufacturing and outside the firm, due to a growing trend of using 3PL companies for logistics. The responsiveness of a firm’s operation system being within the domain and control of the firm, and responsiveness of a firm’s suppliers dictating much of the firm’s ability to be responsive, these two components of SCR were found to predominantly predict CA in this study.

The study found that none of the SCR dimensions predict the price, quality, product innovation, or time to market dimensions of CA when considered individually. The study also finds that responsiveness of a firm’s supplier network and its operations system can positively influence a firm’s ability to compete based on ‘delivery dependability’. The responsiveness of a firm’s logistics system, however, was not found to contribute significantly to the prediction of ‘delivery dependability’. A plausible explanation to this is that a growing number of firms are outsourcing the logistics function to 3PL companies resulting in this dimension of responsiveness falling outside of the focal firm’s purview and thus not being in its direct control. The 3PL companies maintain and often exceed their service levels to stay in business and beat the competition. Therefore there is little scope for in-house improvement of LPR by firms. The responsiveness of

the manufacturing system of an organization, however, accounted for by OSR is a parameter within an organization's purview. Also, in order to address changes in customer demand in a timely manner by a firm, much relies on the firm's suppliers' ability to address changes in the firm's demand in a timely manner. Therefore, the SNR's and OSR's impact on 'delivery dependability' is considered crucial, and also found supported by the results of our analysis.

The findings imply that organizations may be able to improve CA through a more responsive supply chain. Organizations can improve their overall competitive position and their delivery performance through a responsive operations system in terms of the five measures of OSR and through responsive supplier networks in terms of the four measures of SNR (see Appendix B). The findings may encourage practitioners and firms to boost these SCR components to increase CA and delivery dependability, and stay ahead in business. The study also provides a research framework and insight for future research in the area of SCR and CA.

### **LIMITATIONS AND FUTURE RESEARCH**

This research has extended past research in several ways, by building on theoretical and empirical studies. Although this research has contributions from both theoretical and practical point of views, it also has some limitations, which are described below and which may be addressed in future research.

The individual respondents (high-level executives from purchasing, operations, materials, and logistics functions) in an organization were asked to respond to complex SCM issues dealing with all the participants along the supply chain, including upstream suppliers and downstream customers. However, no person in an organization is in charge of the entire supply chain. Therefore, the use of single respondent may generate some measurement inaccuracy. In addition, this study was limited to the industries (SIC codes – 22, 23, 25, 34, 35, 36, 37) used for this research. This could limit the generalizability of results to other industry types. Future research may extend or replicate the study for other industry types to enhance generalizability. Future research should apply multiple methods of obtaining data. The use of single respondent to represent intra or inter-organization wide variables may generate some inaccuracy, more than the usual amount of random error (Koufteros, 1995). Future research could seek to utilize multiple respondents from each participating organization to enhance the reliability of research findings. Future research may test the relationships across countries. Thus SCR dimensions impacting CA in different countries can be compared and country-specific SCM issues can be identified.

Additionally, future research may develop additional dimensions of SCR such assembly responsiveness and inbound logistics responsiveness and study their impact on CA. Future research may study SCR and its dimensions at the supply chain level. Observing a complete supply chain, it may be interesting to investigate the various SCR components across supply chains operating in different industries (e.g. electronic and computer, heavy machinery manufacturing, fashion and apparel, and consumer goods) and their role in creating CA. A MANOVA type data analysis may be performed in future studies to provide additional insights and reveal further details on the how CA and its dimensions can be effected by high and low levels of SCR components. Such a study would be useful in drawing additional practical and theoretical implications.



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## **Appendix A. Instrument for supply chain responsiveness and competitive advantage**

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### **Supply Chain Responsiveness\***

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Please circle the number that accurately reflects the extent of your supply chain's current level of responsiveness.

#### *Operations system responsiveness (OSR)*

- OSR1      Our operations system responds rapidly to changes in product volume demanded by customers
- OSR2      Our operations system effectively expedites emergency customer orders
- OSR3      Our operations system rapidly reconfigures equipment to address demand changes
- OSR4      Our operations system rapidly reallocates people to address demand changes
- OSR5      Our operations system rapidly adjusts capacity to address demand changes

#### *Logistics process responsiveness (LPR)*

- LPR1      Our logistics system responds rapidly to unexpected demand change
- LPR2      Our logistics system rapidly adjusts warehouse capacity to address demand changes
- LPR3      Our logistics system rapidly varies transportation carriers to address demand changes
- LPR4      Our logistics system effectively delivers expedited shipments

#### *Supplier network responsiveness (SNR)*

- SNR1      Our major suppliers change product mix in a relatively short time
- SNR2      Our major suppliers consistently accommodate our requests
- SNR3      Our major suppliers provide quick inbound logistics to us
- SNR4      Our major suppliers effectively expedite our emergency orders

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### **Competitive Advantage\***

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Please select the number that accurately reflects the extent of your firm's competitive advantage on each of the following.

#### *Price/Cost (PC)*

- PC1      We offer competitive prices
- PC2      We are able to offer prices as low or lower than our competitors

#### *Quality (QL)*

- QL1      We are able to compete based on quality
- QL2      We offer products that are highly reliable
- QL3      We offer products that are very durable
- QL4      We offer high quality products to our customers

#### *Delivery dependability (DD)*

- DD1      We deliver customer orders on time
- DD2      We provide dependable delivery

*Product innovation (PI)*

- PI1 We provide customized products
- PI2 We alter our product offerings to meet client needs
- PI3 We cater to customer needs for “new” features

*Time to market (TTM)*

- TM1 We are first in the market in introducing new products
- TM2 We have time-to-market lower than industry average
- TM3 We have fast product development

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\* All items are measured using a 5-point Likert scale measured from 1-not at all to 5-to a great extent

### Appendix B. Characteristics of the respondents

1.	<b>Job Titles (290)</b>	
	CEO/President	10.69% (31)
	Vice President	44.83% (130)
	Director	25.17% (73)
	Manager	19.31% (56)
2.	<b>Job Functions (291)</b>	
	Corporate Executive	42.27% (123)
	Purchasing	4.47% (13)
	Manufacturing / Production	8.59% (25)
	Distribution / Logistics	13.06% (38)
	SCM	16.84 (49)
	Transportation	1.37% (4)
	Materials	0.69% (2)
	Operations	6.19% (18)
	Other	6.53% (19)
3.	<b>Years worked at the organization (290)</b>	
	Under 2 years	19.31% (56)
	2-5 years	26.55% (77)
	6-10 years	20.69% (60)
	Over 10 years	33.45% (97)

### Appendix C. Characteristics of the surveyed organizations

1.	Organizations that have embarked upon a program aimed specifically at implementing “Supply Chain Management” (294).	
	Yes:	63.27% (186)
	No:	36.73% (108)
	Average length of implementation: 4.15 years	
2.	Primary production system (283)	
	Engineer to Order	10.60% (30)
	Make to Order	35.69% (101)
	Assemble to Order	20.85% (59)
	Make to Stock	32.86% (93)
3.	Industry – SIC (278)	
	Textile mill Products (SIC 22)	0.00% (0)
	Apparel and Other Textile Products (SIC 23)	1.44% (4)
	Furniture and Fixtures (SIC 25)	2.52% (7)
	Fabricated Metal Products (SIC 34)	10.43% (29)
	Industrial Machinery and Equipment (SIC 35)	10.07% (28)
	Electrical and Electronic Equipment (SIC 36)	39.57% (110)
	Transportation Equipment (SIC 37)	9.35% (26)
4.	Number of employees (291)	
	1-50	4.12% (12)
	51-100	6.87% (20)
	101-250	12.03% (35)
	251-500	12.37% (36)
	501-1000	8.59% (25)
	Over 1000	56.01% (163)
5.	Annual sales in millions of \$ (278)	
	Under 5	2.52% (7)
	5 to 10	3.60% (10)
	10 to <25	7.19% (20)
	25 to <50	8.99% (25)
	50 to <100	6.83% (19)
	>100	70.86% (197)



## **THE DEEPWATER HORIZON OIL SPILL CRISIS: DID PUBLIC RELATIONS HELP REBUILD THE COMPANY'S REPUTATION?**

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### **ABSTRACT**

In 2010, Deepwater Horizon, a rig owned by Transocean and leased by British Petroleum (BP), exploded off the coast of Louisiana in the Gulf of Mexico. The blast killed 11 crewmembers and injured 17 others. It was considered the biggest accidental marine oil spill in the world and the largest environmental disaster in the U.S. This case study assesses how British Petroleum handled the crisis. The analysis suggests that the British company attempted to pursue two-way communication with the families of the victims and keep the general public, media and shareholders updated of its endeavor to contain and close the leak. However, the evidence reveals that BP disseminated incomplete and distorted information and did not want to take responsibility. In fact, the company blamed Transocean for the spill and tried to manipulate the public by buying search phrases on internet browsers such as *Google* and *Yahoo* so the first match people see is BP's website and not news or protest sites. The study concludes that BP was not prepared to deal with the disaster. The company had a handbook of procedures for crises, but it did not seem to help much. BP appeared to have followed the Exxon-Valdez oil spill's public relations approach. The authors address the strengths and weaknesses of the campaign to influence public opinion and offer some ideas on how the situation could have been tackled differently.

*Keywords:* British Petroleum (BP), corporate communications, crisis communication, Deepwater Horizon, environmental disaster, public relations effects, reputation management, restoration of public trust

### **INTRODUCTION**

On April 20, 2010, at approximately 9:45 p.m. CDT, a mixture of natural gas, mud and concrete exploded from under the Deepwater Horizon semi-submersible mobile drilling oil rig in the Gulf of Mexico. The accident resulted in multiple casualties: 11 people died and 17 were injured. The Deepwater Horizon rig was owned by Transocean, and leased by BP. It sank two days after the explosion. BP realized hours later that there was an oil leak that would spill into the Gulf of Mexico for more than three months (Byars, 2013). BP officials estimated the spill to be 1,000 barrels a day (Bergin, 2012), but it was later discovered that the rate of spillage was much more significant than what BP officials thought. In fact, the disaster became not only the biggest U.S. oil spill, but also the largest accidental marine oil release in the history of the petroleum industry. As such, it also became a major test for crisis public relations.

## SITUATION ANALYSIS

British Petroleum (BP), a multinational gas company, was founded in 1909 as Anglo-Persian Oil Company and it became BP in 1954. Over time, the company set up oil rigs around the world, and grew exponentially due to different mergers. In the 1980s, the British government sold off its own stake of the company and BP started acquiring a sizable presence in the American market through the 1980s and 1990s. Now, it is one of the 6 major oil and gas company in the world. As of December 2016, BP employed over 74,500 people in 72 countries, produced around 3.3 million barrels of oil per day and its sales and other revenues reached \$183 billion. The company also manufactures and markets fuels and raw materials used in thousands of everyday products, from mobile phones to food packaging (BP at a glance, 2017).

BP's reputation in the U.S. was hurt by a series of incidents that occurred through the 2000's. According to *ProPublica*, in 2005 an explosion at BP's Texas City refinery killed 15 workers (White, 2010). Regulators said the accident's main reason was cost cutting. The following year BP paid a \$12 million fine for failing to repair a pipeline that caused an oil spill in Prudhoe Bay. This repair had been warned about and needed since 2002. Five years later, BP was accused of manipulating the market price of propane and the company agreed to pay a \$300 million fine (White, 2010).

Initially, the 2010 Deepwater Horizon accident was not a very important news story to the media because the leakage was not perceived to be significant. Ali Velshi, a *CNN* reporter, said that about 1,750 barrels of oil go into the ocean on a daily basis and the leakage was normal (Bergin, 2012). However, scientists from the National Oceanic and Atmospheric Administration (NOAA) calculated the flow rate to be between 5,000-10,000 barrels per day, and the leak was not sealed for almost three months (Bergin, 2012). As a result, a week after the incident the media coverage got more intensive and critical and public opinion got worse. The disaster soon was everywhere on the news, in television shows, YouTube videos, social media, and others.

### Historical Context

The Exxon-Valdez oil spill is the only comparable U.S. offshore incident. This similar but smaller-scaled incident happened in 1989 in Prince William Sound, Alaska. An oil tanker bound for Long Beach, California, struck Prince William Sound's Bligh Reef and spilled 260,000 to 750,000 barrels of crude oil. This spill was the largest one in U.S. waters until the 2010 Deepwater Horizon oil spill, in terms of volume released. In its first month, BP's oil spill dropped 4.2 million barrels (equal to 30 million gallons) of oil into the Gulf, many times the amount of the Exxon-Valdez oil spill. Most of BP's crisis public relations activities were inspired from the Exxon-Valdez oil spill case (Bergin, 2012).

### Economic Context

The Deepwater Horizon disaster crashed the Gulf Coast economy with impacts on marine wildlife, fishing, and tourism. According to the *Moody's Analytics*' research, Alabama, Florida, Louisiana, Mississippi and Texas were affected by the disaster. The two most impacted states were Louisiana for its heavy dependence on fishing and oil extraction and Florida for its reliance on tourism (Di

Natale, 2010). Three years after the oil spill, Drue Banta Winters, attorney with the Louisiana governor's office, noted that more than 1,700 sea turtles were found stranded between May 2010 and November 2012, compared to an average 240 stranded sea turtles annually. There were also 930 cetaceans — mostly bottle nosed dolphins and some whales — stranded in the Gulf between February 2010 and April 2013, including 440 in Louisiana. The historical average is 20 strandings a year (National Oceanic and Atmospheric Administration, 2016).

There was a great economic loss for British Petroleum. Ten days after the spill, some BP-branded gas stations reported sales declines of 10 to 40 percent from Florida to Illinois (Weber, 2010). According to *BBC News*, in 2010 BP suffered a revenue decline \$4.9 billion, which was BP's first annual downturn since 1992 (BP reports \$4.9bn annual loss, 2011). Additionally, the company's share price decreased considerably after the oil release. For instance, on April 20, 2010, the share price was at \$655.40 but on June 29 it went down to \$298 (BP oil spill: An interactive timeline, 2013). Furthermore, after a long legal battle, a federal judge in New Orleans approved an agreement between BP and the Justice Department for the company to plead guilty to 14 criminal charges and pay \$4 billion criminal settlement (Krauss, 2013). Additionally, as of December 2012, BP had spent more than \$14 billion on their response activities such as the "Deepwater Horizon Oil Spill Trust" (BP's website).

### **Health Consequences**

Six years after the oil spill, Gulf residents were still suffering from migraines, skin rashes, bloody diarrhea, bouts of pneumonia, nausea, seizures, muscle cramps, profound depression and anxiety, severe mental fuzziness, and even blackouts. In addition to the oil spill, BP officials released 1.8 million gallons of Corexit, a chemical dispersant used to break up the oil, into the Gulf before the well was sealed. Government scientists expressed concern about the health consequences of mixing such large quantities of dispersants into millions of barrels of sweet crude. Occupational health experts now believe it created a toxic mix that sickened thousands of locals — including some of the 47,000 people who worked in some capacity on BP's cleanup operations — crippling them with chemically-induced illnesses that doctors were unable to treat (Marsa, 2016).

Michael Robichaux, an ear, nose, and throat specialist in south Louisiana and a former state senator, pointed out that every patient will be ill for the remainder of his/her life as the result of exposure to chemicals involved in the Deepwater Horizon tragedy. Many of the ailments plaguing workers and residents in the Gulf region mirror what has been seen after previous spills, such as that of the Exxon Valdez, where many workers claimed brain damage due to exposure to the neurotoxins in the oil. Others suffered from infertility, endocrine disorders, heart damage, chronic respiratory ills, premature aging, a decline in cognitive function, long-term depression, and nerve damage, according to numerous studies (Marsa, 2016).

Michael Harbut, a professor at Michigan State University and an environmental and occupational health expert who served as a consultant for the plaintiffs on the medical class-action suit filed against BP said, "Exposure to organic solvents causes the same intellectual effect as lead poisoning." He added, "We'll see chronic adverse health effects, including liver and kidney disease, birth defects, and developmental disorders. Over time, we'll see a bump in certain cancers

that are related to industrial solvents, such as leukemia, lymphomas, and lung and skin cancers” (quoted in Marsa, 2016).

In 2012, BP agreed to a complex class-action \$7.8 billion medical settlement that would compensate victims up to \$60,700 per person and allowed people to file further claims if they developed more serious problems. More than 37,500 victims have filed claims, according to the latest figures from the claims administrator (Marsa, 2016).

### **Ultimate Cost**

In October 2015, BP agreed to a \$20 billion settlement with the U.S. Justice Departments, more than five years after the disaster stained more than 1,300 miles of the Gulf of Mexico’s coastline. The deal involved a massive restoration effort for plant and wildlife habitats that were damaged when 3 million barrels of oil spewed into the Gulf. The deal also included a \$5.5 billion civil penalty and \$7.1 billion in claims under the Oil Pollution Act. The company sold numerous assets to cover the bill (Bomey, 2016).

On July 14, 2016, BP claimed that the estimated cost of the 2010 Deepwater Horizon oil spill hit \$62 billion. This cost includes all of the settlements and lawsuits from individuals, lawsuits from cities and states, federal lawsuits, and civil penalties and cleanup costs (Cousins, 2016). It is difficult to determine the final cost of the disaster, but some newspapers, such as *The Telegraph* in London, earlier explained that subsequent claims could push the total bill for over \$90 billion (Gosden, 2013). In addition, *The Washington Post* reported that BP lost one third of its market size as a result of the spill, which was about \$180 billion before the disaster (Cousins, 2016).

## **THE CAMPAIGN**

Nelson (1988, p. 372) presciently warned that “Those in the private sector who lack a commitment to applying strategic planning to involve themselves in shaping issues may find themselves in unmarked and dangerous public policy territory, groping blindly into the future.” The BP issues management campaign started as soon as the CEO, Tony Hayward, received a voicemail early in the morning of April 21, 2010 in London informing him that an explosion on the Deepwater Horizon rig occurred at 10 p.m., April 20, 2010, CDT, in the Gulf of Mexico (Bergin, 2012). Hayward conveyed a team of his top executives and his head of press Andrew Gowers. BP issued its first press release in the late morning of April 21, 2010, less than 12 hours after the incident. The press release was short (171 words) and titled “BP Offers Full Support to Transocean After Drilling Rig Fire.” This was an indication that BP would not take a full responsibility and it would blame Transocean for the oil spill (Bergin, 2012).

### **Reasons for Conducting the Campaign**

British Petroleum had various reasons for conducting the campaign (see Valvi & Fragkos, 2013; Pollitt, 2014). First, the accident killed 11 crewmen and the company needed to create a two-way communication with their families. Second, BP wanted to keep the general public and media aware of its efforts to contain and close the leak. Third, BP wanted to reassure the Gulf coast states residents and offer them some solutions for re-launching tourism and fishing activities. Fourth,

and most importantly, BP attempted to restore its image. According to a *Washington Post-ABC News* poll conducted in June 2010, about 81 percent of the people surveyed gave low marks to BP for its response (Cohen, 2010).

### **Target Publics**

BP conducted various kinds of public relations activities to restore its reputation but it did not come up with a list of specific target publics. However, in scrutinizing these activities we concluded that the company actively attempted to reach out to the following groups and organizations:

**Media.** The size of the disaster, the people killed and BP's stained reputation during the 2000's created an important and critical media coverage. According to a Pew Research Center study on the website "Journalism.org", the story dominated mainstream news media for 100 days after the explosion, accounting for 22% of the "news hole" (Pew Research Center, August 25, 2010). The media played a significant role in: (a) shaping public opinion and showing concern for the environmental disaster and (b) informing various publics about BP's different efforts to contain the leak and create the claim fund.

**The Gulf Coast states and residents.** BP's main target publics were the Gulf Coast states and their residents because of their serious concern with the environmental consequences. The oil was all over the Gulf Coast's beaches, destroying wildlife, fishing and tourism.

**The general public.** The general public consisted of people in the U.S. and around the world who followed the news about the environmental disaster.

**The American government.** BP had multiple federal and state lawsuits for criminal charges, environmental damages, injuries and health risks from cleanups. Public opinion polls and contemporary media reports were generally critical of the way President Barak Obama and the federal government handled the disaster.

**Clients and BP shareholders.** The oil spill caused BP's sales to go down 40% and the stock to lose about half its value.

**Environmentalists.** They were devastated by the disaster which was considered the largest accidental marine oil spill in the history of the petroleum industry. The leakage into the Gulf of Mexico caused widespread kill-off of marine wildlife and other damage requiring massive restoration efforts (Gaskill, 2015; Coastal Protection and Restoration Authority, 2017).

### **Impact Objectives**

According to one of the standard public relations texts, a key way to understand campaigns involves evaluating its objectives. *Impact objectives* consist of informational, attitudinal, and behavioral criteria because they represent specific, intended effects of public relations programs on their targeted publics. *Output objectives* refer to media techniques and tactics that the organization uses (Hayes, Hendrix, & Kumar, 2013, pp. 24-27). In this case, BP did not establish

specific, measurable and time-bound objectives. However, in our review of the published literature we noted the company attempted to pursue the following objectives:

***Informational***

1. To create public awareness of the different steps that BP was taking to fix the oil spill.
2. To inform the general public about claim funds available for victims of the Deepwater Horizon disaster.
3. To educate the target publics about the Gulf of Mexico restoration program.

***Attitudinal***

1. To reverse negative attitudes towards BP.
2. To convince the general public that it will not happen again.
3. To restore confidence that BP is a responsible company.

***Behavioral***

1. To persuade BP's former customers to buy BP products.
2. To keep shareholders investing their money in BP.

**Output Objectives**

1. To send press releases to major news agencies to update the media on BP's efforts such as containing the leak and cleaning up the Gulf of Mexico.
2. To set up a website to provide information on the accident.
3. To conduct multiple news conferences updating the media on the company's activities.
4. To grant one-on-one journalist interviews.
5. To establish a hotline answering calls from the press and to the public.
6. To create multiple YouTube campaigns about BP's continuing efforts at restoration such as "BP Gulf Coast Update: Our Ongoing Commitment."
7. To launch another website called the "Deepwater Horizon Joint Information Center." In the first 60 days, the site received more than 100 million hits. It allowed visitors to receive emails and text messages and to ask questions or post comments to Unified Command using automated forms.

**Programming**

***Public relations models.*** After reviewing decades of public relations efforts, Grunig and Hunt (1984, pp. 13-46) developed four major models to describe how practitioners influence opinion: (1) the press agent/publicity model, (2) the public information model, (3) the two-way asymmetric model, and (4) the two-way symmetric model. These models are now widely accepted in terms of analyzing programs, strategies, and tactics.

In the press agent/publicity model, practitioners promote an organization's point of view, often through incomplete, distorted, or half true information. The public information model is applicable when the purpose is the dissemination of information, not necessarily with a persuasive intent. Communicators opting for the two-way asymmetric model have a function more like that of the press agent/publicist, although their purpose can best be described as scientific persuasion. They

use what is known from social science theory and research about attitudes and behavior to persuade publics to accept the organization's point of view and to behave in a way that supports the organization. In the two-way symmetric model, practitioners serve as mediators between organizations and their publics. Their goal is to create and maintain mutual understanding between organizations and their publics. These practitioners, too, may use social science theory and methods, but they usually use theories of communication rather than theories of persuasion for planning and evaluation of public relations.

The application of these models is controversial, particularly in crisis situations. As Nelson & Heath (1986, p. 20) point out, "No single clearcut public interest standard exists....Certainly the use of organizational resources and scientifically targeting audiences is crucial to understanding issues communication. No model of issues communications should treat it as merely a matter of disagreement or misunderstanding. At heart it centers on a power struggle between corporate interests and public interests as interpreted by social media agitators."

In the Deepwater Horizon case, BP used a combination of two public relations models: the press agency publicity model and the two-way asymmetric model. Early in the campaign, company officials claimed that spill was 1,000 barrels a day while scientists estimated the spill to be between 5,000 to 10,000 barrels a day. Thus, the disseminated information was either distorted or incomplete. Furthermore, BP did not want to take a full responsibility for the disaster. Instead, it blamed Transocean for the spill. BP also tried to manipulate the public by buying some search phrases on search engines such as *Google* or *Yahoo*, so the first match people see is BP's website and not news or protest sites.

At some stages of the campaign, BP appeared to have used the two-way asymmetric model. The company tried to get as much feedback as possible to establish interactive websites, hold press conferences, use social media, and respond to claim funds and hotline. Nevertheless, the information was imbalanced in favor of the organization. For example, BP's executives seemed to attempt to persuade the various publics described above that everything was under control even though it wasn't.

**Reactive approach.** BP was not prepared to deal with such a large disaster. It had a handbook outlining the main steps to follow in case of a crisis, but it did not seem to help. The company also had a 583-page emergency-response strategy report prepared prior to the disaster and approved by the government, but it was neither helpful nor applicable for the Deepwater Horizon case. The report did not have any procedures to address a deep-sea spill such as this one. However, paradoxically the report had one source link to a Japanese website. BP seemed to have pursued the Exxon-Valdez oil spill's public relations approach and learned from some of their mistakes. For instance, like Exxon-Valdez, BP realized that its CEO had to fly on the site of the disaster to emphasize the company's concern. BP also hired different public relations firms to handle the crisis, recognizing after a few weeks that the company's public relations department was not specialized in crises.

## Theme

The main theme, introduced in most of BP's advertisements, was: "We will get it done. We will make it right."

## Messages

The following messages were drawn from our review of BP's advertisements, press conferences, and websites.

- BP accepts responsibility for the cleanups.
- BP is concerned about the harm it caused to people and to the environment.
- BP is committed to restore the environment in the Gulf of Mexico.
- BP is obligated to help the Gulf communities.

## Actions

According to BP's website, most of the company's actions were to clean up the beaches with assessment technique teams composed of scientific experts, along with federal and Gulf state representatives. BP used a variety of techniques (such as skimmers, controlled in situ burning, and dispersants) in attempting to prevent oil from reaching the shores. The company ended its cleanup of the oil spill in three Gulf Coast states in June 2013 and spent an additional year on finishing the cleanup in Louisiana because it was the most polluted state after the accident. According to its website, BP paid \$23 billion in claims and cleanup efforts.

## Use of Controlled Media

BP used a wide range of media but it relied heavily on controlled media to convey messages to its targeted publics. The following is a summary of the main controlled media:

- Announcements on television apologizing and highlighting BP's commitment to the Gulf and its coastline.
- Full-page advertisements in major newspapers (*Washington Post*, *New York Times*, and *USA Today*).
- Funds to the Gulf states to pay for tourism advertisements.
- Creation of a website to provide information about the accident and to update the publics on the company's efforts.
- Hotline to answer the media's and general public's questions.
- Updates via emails and text messages to those who signed up for a series of regular website updates.
- *Twitter* to keep people who wanted instantaneous information on BP's current commitment to the Gulf (@BP\_America).
- *Facebook* pages ("Updates from the Gulf" and "Voices from the Gulf") to offer updates on the cleanup and to promote tourism in the Gulf.
- *Flickr* (image-hosting website) ("BP America Photostream") to update pictures from the company covering the cleanup, community outreach, wildlife rescue and beach restoration in and along the Gulf.



- Creation of *YouTube* video series about BP ongoing commitment to the Gulf: “BP Gulf Coast Update: Our Ongoing Commitment.”

### Use of Uncontrolled Media

BP also used the following uncontrolled media:

- Multiple news releases to various media.
- CEO’s interviews with journalists.
- News conferences.

### Effective Use of Communication Principles

***Two-way communication.*** BP focused heavily on a two-way interaction using emails, telephone, press conferences, and websites. In addition, the company relied on social media to allow the public respond and offer comments. The BP’s website gave the public an opportunity to ask questions or to post comments to *Unified Command* using automated forms (“Gulf Spill Communications”).

***Salient information.*** BP’s advertisements in newspapers and magazines and commercials on television contained salient information about the cleanups, the amount of money paid to restore the economy, clean the environment, and handle the claim funds.

***Verbal cues.*** The language was clear and appropriate and messages were in U.S. (rather than U.K.) English spelling.

### Strengths of the Campaign

***BP cleaned the Gulf effectively and helped the community.*** According to BP’s website, the company paid \$23 billion in claims and cleanup efforts. In June 2013, BP ended the oil spill cleanup in three Gulf states (Chappell, 2013).

***BP actively employed the following social media:***

- *Twitter: @America.* The company managed to send a minimum of one update per day to keep its followers posted on BP’s commitment to the Gulf and its work towards secure energy. It was a very effective way to keep posted the general public. It was also successful, because BP answered multiple questions via *Twitter*.
- *Facebook: BP* had two different pages on *Facebook*. The first one was called “Updates from the Gulf” and served to give quick updates on the oil spill cleanups and responses. The second page was called “BP America—Voices from the Gulf” and it was used to promote the different activities featured in the Gulf of Mexico such as restaurants, vacation spots, and stories from the Gulf Coast residents. Currently, BP has a *Facebook* page called “BP America.” The page informs the public about the company’s commitment to America’s energy, security and economy.
- BP also had a *FlickrR* account called “BP America Photostream,” now called “BP\_image.” The company posts different photos and covers different subjects such as the cleanup, community outreach, claims, beaches, and wildlife.

- BP has its *YouTube* channel called “BP, plc.” In this channel, the viewer can pick one of the different subjects: “Commitment to America,” “The Energy Future” or “BP in the Community.” In 2010, the channel featured “BP Gulf Coast Update: Our Ongoing Commitment” and some advertisements for tourism in the Gulf.

***BP reacted promptly.*** The company issued a news release 12 hours after the incident even though it is based in England. The CEO flew quickly to the site of the disaster publicly show BP’s commitment and concern.

***BP strove to be open and listen to the public.*** After Tony Hayward’s resignation on July 27, 2013, the new CEO Robert Dudley attempted to make BP more transparent and adapted to the American public.

### **Weaknesses of the Campaign**

All public relations models and lists of good practices for business emphasize the need for strategic planning, open and truthful communication, and being upfront about corporate responsibility. In addition, being sensitive to peoples’ needs as individuals as well as groups has become increasingly important when dealing with international issues. Unfortunately, BP did not fully embrace these best practices in the Deepwater Horizon aftermath. For example:

***BP didn’t have a crisis plan.*** Though the company had a crisis handbook and an emergency-response strategy report, the board of executives did not have a crisis plan for dealing with this kind of disaster and they were not prepared (BP: Lessons in crisis public relations, 2010).

***BP broke the key rule of being transparent and honest.*** At the beginning of the campaign, BP officials estimated the spill to be 1,000 barrels a day, but other scientists estimated it to be between 5,000 to 10,000 barrels a day. While it is hard to determine whether BP knew that the spill was more than 1,000 barrels, the public interpreted the estimation as a lie.

***BP’s denial of responsibilities at the beginning.*** In its first news release titled “Gulf of Mexico – Transocean Drilling Incident,” the company seemed to want to blame Transocean and deny its own responsibility. The CEO Tony Hayward told the BBC, “This was not our accident ... This was not our drilling rig. This was not our equipment. It was not our people, our systems or our processes. This was Transocean’s rig. Their systems. Their people. Their equipment” (Rowell, 2010).

***BP lost the public trust because of its initial response.*** It was only after pressure from the government that the board of executives decided to be responsible.

***Cultural differences hampered the communication processes.*** Hayward did not know how to effectively speak to the American public and how to appropriately deal with the American media. Americans were unmoved by images of Hayward on TV, especially when he was quoting Churchill with his British accent. The fact that the company appeared as “British Petroleum” multiple times in the press played on Americans’ sense to be attacked from outside (Bergin, 2012, chapter 7).

***Selection of an inappropriate public relations firm.*** Hayward picked a British-based public relations company (“Brunswick Group”) which did not specialize in crisis communication. The firm had excellent media connections in England, but not as many in the U.S. despite maintaining a Washington, DC office.

***The general public believed BP wanted to manipulate them.*** The company bought terms such as “oil spill” on *Google* and other search engines to direct Internet users to BP’s website, rather than protest websites. The public interpreted the move as dishonest (Bergin, 2012, chapter 7).

***CEO’s decision to manage responses.*** Hayward decided to deal with the responses by himself without seeking advice from a public relations specialist, and as a result, he committed many blunders. He did a series of interviews in the U.K. in which he outlined his true feelings. For instance:

- He told *SkyNews*: “Everything we can see at the moment suggests that the overall environmental impact will be very, very modest” (BP chief predicts, 2010).
- He said to *The Guardian*: “The Gulf of Mexico is a very big ocean. The amount of volume of oil and dispersant we are putting into it is tiny in relation to the total water volume” (Webb, 2010).

However, Hayward announced on U.S. television networks: “I would like my life back” (Snyder, 2010).

***BP disabled feedback for its social media campaign.*** At the beginning of the campaign and until the middle of June, on *Facebook*, the company only accepted comments from people who “liked” BP’s page. Likewise, the comments were disabled on the company’s *YouTube* channel (Seitz-Wald, 2013). This suggests that the company did not want to listen to the public and consider customers’ feedback.

***Too few employees were in charge of the hotline.*** Only four employees worked at the hotline answering questions from the public and media, not enough manpower at the beginning of the campaign (Bergin, 2012).

## THE OUTCOME

The published research suggests that BP’s efforts were not successful. Two months after the incident, an *ABC News/Washington Post* poll reported that three-quarters of the surveyed residents who live along the Gulf claimed that the spill hurt their area’s economy and 55% of the respondents said that the incident had a strong negative impact on their lives (Langer, 2010).

Three years after the oil spill, Americans still had unfavorable views of the company. *Huffington Post* conducted a study to determine if BP’s advertising messages helped explaining the company’s cleanup efforts. The study revealed that 43% of the respondents had an unfavorable view of the multinational oil and gas company, and 31% had a favorable view. In addition, 43% of the surveyed Americans said BP did an excellent to good job at cleaning the Gulf oil spill, compared to 41% who claimed that BP did only a fair or poor job. More specifically, 28% of the participants said that they developed more favorable opinions of BP after being exposed to the company’s ads, and 11% mentioned that their opinions had become less favorable. However, the vast majority

(59%) claimed that the ads did not change their views of BP at all. The study concluded that the Deepwater Horizon was a huge public relations debacle for BP and it was not clear whether the \$100 million spent on advertisements helped BP's image (Swanson, 2013).

### **WHAT WOULD WE HAVE DONE DIFFERENTLY?**

We admit that crisis communication management is the most challenging aspect of public relations practices. A coauthor of this study has published several articles on crisis communication in the last 30 years. He concluded that crisis plans differ from situation to situation and from organization to organization. Our purpose here is not offer general guidelines. Rather, we would like to outline how we would have handled the situation had we been assigned the task of managing various aspects of the oil spill crisis.

- Though it was not predictable to face such a big disaster, we would have tried to be prepared with a proactive crisis plan, inspired on other similar cases.
- We would have taken full responsibilities instead of putting the blame on Transocean.
- We would have apologized at the beginning of the crisis to minimize the public's negative opinions.
- We would have conducted various public opinion surveys to probe into the public opinion and make adjustments accordingly.
- We would have asked the CEO to leave the communication efforts to a public relations specialist. While it was a good idea for the CEO to take charges at the beginning of the disaster, we believe he did not know how to deal with the American public. Cultural differences have created discomfort. An American public relations practitioner would have been more qualified to answer the public and media questions.
- We would have arranged a brief media-training refresher course for the CEO to rehearse on delivering key messages if he insisted on continuing the communication efforts.
- We cannot be sure whether BP voluntarily lied about the leak. However, had the company not been able to measure the significance of the spill, it would have been more appropriate for its officials to delay the estimation or seek more assistance from other scientists.
- We would have definitely hired an American-based firm with expertise in crisis communication instead of a British public relations company as the lead in coordinating BP's response to stakeholders. There was a need to have people "on the ground" who understood cultural differences to effectively communicate on behalf of BP.

### **CONCLUSION**

BP has suffered major reputation damage and its knock-on effects: the chief executive resigned, the company was restructured in some way, and the real commercial and financial costs were so high. A main question arises from this case is how can an international oil company, with much experience of crisis management, get the communication and stakeholder relations aspects of responding to a major physical incident so wrong? The obvious answer is poor preparedness. Nowadays issues can snowball quickly. Media and technology have changed. Incidents can be reported on news channels 24 hours a day and social media conversations start even before the affected organization has chance to meet and respond to the crisis.

Managing risks to reputation places heavy strain on the communication aspect. Everything the organization says and does in response to the crisis is judged by those who determine reputation and then make choices accordingly. The 2010 BP Deepwater Horizon oil spill is one of the most financially and reputationally destructive corporate crisis in history. Andrew Griffin, a highly-recognized specialist in strategic crisis management and corporate reputation management, sums the incident as follows: “BP’s Deepwater Horizon crisis will be remembered for many things: the Chief Executive’s gaffes; the sheer volume of the spill and the time it took to stem it; the performances at the Congressional hearing; the social media response; the sudden and politically expedient re-emergence of ‘British Petroleum’ (rather than BP) as a brand; the size of the fines. The crisis lessons list goes on and on and will overshadow the extraordinary feats of engineering that eventually saw the operational problem solved” (Griffin, 2014, pp. 173-174).

Because it was the biggest oil spill in the U.S. history, we cannot safely claim that any company would have been able to deal flawlessly with the incident. The time zone differences, the cultural variations, and the damage extent have to be considered in this case. It is particularly difficult to save the company’s reputation after such a big disaster. We speculate, however, that BP’s reputation can be repaired if the company makes serious public relations efforts to reestablish and maintain strong relationships with all concerned publics by genuinely addressing their needs. The publics probably need more time to adjust to new conditions created by the disaster.

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## **TEACHING LEADERSHIP USING THE BALDRIGE LEADERSHIP CRITERIA**

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### **ABSTRACT**

The nature of leadership studies has changed relatively little within the last fifty years, with little innovation of teaching approaches toward improving knowledge and application of leadership history, nature, and skills. Graduate leadership curricula in schools of business have traditionally focused on leadership theories, but literature points to a lack of results to indicate this approach is successful, based on the lack of quantity and quality of effective leaders and those demonstrating leadership abilities. Calls to improve the curricula emphasize the need to focus on organizational goals, develop employees to be empowered contributors, and focus on processes and integration instead of individuals as unique leaders, with characteristics possessed by few. Toward addressing this issue, the use of the Baldrige National Quality Award Leadership Criteria (1.1) has been shown to be an effective way to introduce graduate students to both the study of quality and the study of leadership within an integrated and systematic approach to assessing organizational effectiveness. This paper outlines the Baldrige Leadership framework as well as the advanced approach to leadership that specifically addresses vision and values, promoting legal and ethical behavior, creating a sustainable organization and communication.

*Keywords:* Leadership, Teaching, Baldrige, Development, Quality

### **INTRODUCTION**

Senge (1990) identified the need for a new type of leadership when leading a learning organization. A traditional view of a leader is deeply connected to a view of the world which is highly individualistic and not systemic. In the West, leaders are traditionally viewed as heroes, mostly great men with a few women who rise to the challenge in a time of crisis. Prevailing myths focus on examples such as a captain leading a cavalry charge to save settlers in the Western US from an Indian attack. This view of individuals as heroes is problematic, because it “..... focus[es] on short-term events and charismatic heroes rather than on systemic forces and collective learning” (p. 340). This traditional view of leadership assumes people are powerless and are unable to manage change and that such events require a few great leaders.

Senge (1990) posits that the new view of leadership must focus on leaders building organizations, and leaders should be stewards, teachers and designers. Leadership should be responsible for allowing people to learn and expand their capabilities so employees can understand complexity and a shared vision, and leadership must be able to “breathe life” into their organizations. The leader as a designer actually goes back thousands of years, and Senge (1990) paraphrased Lao-tzu: “The good leader is he who the people praise. The great leader is he who the people say, ‘We did it ourselves’” (p. 341). With this challenge to create learning organizations towards improving

them, what has been done to address this need? Based on a review of the available literature, we have not done much in graduate business education.

Despite the increase in students and graduates choosing management education over the last 10 years, there are remaining shortages regarding the quantity and quality of those who possess leadership abilities (Hay & Hodgkinson, 2005). Periodically, there are calls for restructuring business school curricula to provide better student preparation, yet little has been done to change the approach to delivering leadership education (Hobson, Strupeck, Griffin, Szostek, & Rominger, 2014). Gosling and Mintzberg (2004) emphasize there have been no changes in the MBA curriculum since the 1950s. This should be of interest to schools of business, as the MBA represents a popular graduate business degree, providing a breadth of experience in the various aspects of the business environment.

The MBA represents the standard for graduate business programs because of breadth of knowledge provided by the numerous aspects of business but with limited exposure to leadership and a prevailing focus on systems control (Hay & Hodgkinson, 2005). Collinson and Tourish (2015) point to failures to turn students into inspirational leaders and growing criticism of business schools. This “failure” also supports the argument that a leadership crisis exists which requires a stronger focus on leadership education in terms of quality leadership (Hay & Hodgkinson, 2005). Emulti, Minnis and Abebe (2005) question if education even has a role in the developing of leadership skills, focused on MBA programs. Doh (2003) and Hayes and Hodgkinson (2005) believe that leadership can be taught, but practical experience is a necessary element.

The authors of this paper propose that education plays an important role in developing leadership skills, but the approach to developing leaders through curriculum and application has not been updated to the extent necessary to provide guidance to school of business in an environment where collaboration and empowerment have become important not only for leaders, but for members of the organization. The purpose of this paper is to present the current state of graduate leadership education and propose a more systematic and integrated approach to develop skills and abilities necessary for leadership based on the Baldrige Framework (NIST, 2017). This paper examines the literature and current trends in graduate business education to develop effective leadership and proposes a different focus and approach to teaching leadership, moving away from traditional methods which focus on the individual and toward improving organizations with a systems approach based on processes. Issues as defined by literature will be presented with a proposal to refocus in a more effective way for academia to deliver of leadership education. Recommendations are presented followed by a conclusion.

## **ISSUES IN LEADERSHIP EDUCATION**

Emulti et al. (2005) and Collinson and Tourish (2015) question the value and efficacy of current approaches to developing leaders in business programs. This is only one of many issues identified by the literature and should be considered by academia as a call for improvement. Muenjohn, Pimpa, Motague and Qin (2016) confirm practical learning is an important aspect of leadership education, and curriculum is key to addressing the need for more effective leadership and better leadership education; also, available literature suggests there has been a struggle with the issue of

teaching leadership in business schools and designing curriculum that helps graduates develop into more competent leaders (Hay & Hodgkinson, 2005; Hobson et al., 2014).

### **Current Approach to Teaching Leadership**

The current approach to teaching leadership, “what” we teach and “how” we approach leadership often develops around the discussion in differences related to the theoretical approaches, often accompanied by a discussion of ethics in leadership. Such leadership theories include, but are not limited to, trait theory, transformational leadership, transactional leadership, charismatic leadership, and situational leadership. The use of cases serves to provide applications to leadership situations (i.e., Yawson, 2014). Hobson et al. (2014) confirm that teachers often employ these approaches that are already well established, and in the US, there are few sources such as communities of practice to offer opportunities to develop and share best practices which may provide more practical and situational knowledge.

### **Development of Practical Skills**

Hay and Hodgkinson (2005) and Muenjohn et al. (2015) propose that business schools need to improve the development of practical leadership skills and application of those skills; this suggests the need to develop a new approach to teaching leadership, as the current focus on leadership is traditionally based on these theoretical approaches - and this has remained unchanged for over 50 years (Gosling & Mintzberg, 2004). One of the issues with teaching theoretical leadership approaches is that it leaves students unprepared for practical application in a work situation. Another challenge is that much of the literature focused on teaching leadership tends to be somewhat dated with limited research available since 2010. A few exceptions are noted such as Hobson et al. (2014) and Muenjohn et al. (2015). As such, it is unclear how business curricula can be developed to improve leadership in students where there is such a clear lack of approaches, discussions, concepts and empirical information available to support the current business environment.

## **TEACHING LEADERSHIP THROUGH THEORY**

A common approach to teaching leadership in curriculum is through theory. There are many leadership theories. Some of these theories may include but are not limited to trait theory, situational theory, transformational leadership, charismatic leadership, servant leadership and transactional leadership. For example, charismatic leadership and transformational leadership are popular approaches to the concept of leadership development, and although they are central to the field of study, they do little to support the skills and abilities needed to lead.

Inspiring a shared vision represents only one approach to leadership, whereas another approach is systems control thinking, which promotes a mechanistic view and focuses on designing and controlling work. This also implies that a manager works as an expert, controlling and motivating employees. (Hayes & Hodgkinson, 2005) This concept of leader as expert is a common approach, as are the myths about leadership being a unique ability that only a few possess. Many of the theories suggest that leadership may be based on manipulation, control and coercion to some extent and that good leaders are highly educated, yet none of these are necessarily true (Emulti et al,

2005). Ronald (2014) summarizes the “great man” concept which was at the beginning of trait theory in which individuals were determined to be natural born leaders, possessing unique traits others did not have. This was still supported by some scholars well into the 20<sup>th</sup> century, but those who believed leadership and leadership skills are naturally occurring traits in a few lucky individuals contradicts the basic assumption that people can be trained and learn (Emulti et al, 2005).

Because of the increasing gap in the demand for qualified and globally knowledgeable leaders, the current curricula and leadership focus which emphasizes concepts and theory does not work well. Emulti et al. (2005, p. 1022) describes this as “...fragmented functional based training” which lacks the holistic approach supported by Hayes and Hodgkinson (2005). An important element of the traditional approach to teaching leadership revolves around leadership theory. A few of these theories are discussed in the paper for purposes of comparison and to provide examples of traditional approaches to teaching leadership. These include trait theory, transformational theory, transactional theory, charismatic leadership, and situational leadership (Deluga, 1988; Kaul, 2013; McCleskey, 2014; McKnight, 2013) Each of these approaches has advantages and disadvantages.

For example, McCleskey (2014) notes the lack of internal consistency, inherent ambiguities and some contradictions in the concept of leadership, while also noting that no particular leadership style is universally effective. Differences in transformational and transactional leadership styles are explained by Deluga (1988) by defining transactional leadership as a bargaining process. Conversely, the process in transformational leadership emphasizes the cultivation of employee acceptance and the creation of inspiration. McKnight (2013) sees transformational leadership as the best approach to building consensus, uniting for a purpose, and maintaining sustainability. Dartley-Baah (2015) and Kaul (2013) bring mixed possibilities, because Kaul (2013) indicates there are positive and negative aspects to charismatic leadership, and Dartley-Baah (2015) proposes that a mix of transformational and transactional leadership theories may produce the best results. Kaul (2013) posits that charismatic leadership theory suggests that few individuals possess the necessary charismatic talents, thus implying that this is not a skill that can be developed. Taken together, these studies indicate a lack of consistency when discussing leadership.

Situational leadership (McCleskey, 2014) requires analysis and understanding of the situation followed by an appropriate response. More recently, servant leadership has emerged as another approach to leadership (i.e., Spears, 1996; Winston & Fields, 2014), which encompasses some aspects of transformational and transactional behaviors as well as other skills. Although charismatic leadership, as an example, is assumed to create low conflict, high consensus and high internal cohesion, Hayes and Hodgkinson (2005) suggest that the assumptions may be in question, because there is no consideration for the potential of conflicting goals, beliefs and purposes organizational members really hold and serious questions may exist about consensus and cohesion.

### **The Concept of Unitary Control**

As noted earlier, traditional leadership focuses on systems control thinking as illustrated by Hay and Hodgkinson (2005). These authors argue against this approach, because this focuses primarily on leadership, thus implying a unitary organization as well as extraordinary status of the individual leader. This means others in the organization are neglected, because all the focus is on the

leadership processes and activities. Followership is not a concern in a systems control approach. This separation between leader and employees serves to elevate leadership and ignores multiple aspects of organizational life; consequently, the systems control approach as designed by leadership or management is problematic for multiple reasons.

### **Options to the MBA**

One of the notable changes to higher business education in the last few decades includes additions of graduate business programs to include other options beyond the MBA, which offers limited exposure to leadership as noted (Hayes & Hodgkinson, 2005). The rise of specialized graduate programs in business has provided other options for leadership education as indicated by Symonds (2012), Smith-Barrow (2013), and Mellaki (2000) and offer alternatives to the MBA, for those interested for depth in specialized areas without the breadth of content typically offered by an MBA.

These other programs, such as the Master of Science (MSc), which is well known in Europe is acknowledged as a growing trend in UK business schools (Smedley, 2013) is one example; also, these programs exist in different countries and universities such as France, Germany, Spain and Italy, to include the Lyons business school in France and the Rotterdam School of Management at Erasmus University in the Netherlands. In North America, the Master of Science in Management (MSM) represents an example of a specialized degree that provides depth of knowledge in a specialized area. These more recent programs allow additional specialization and may be an integral component to developing effective leaders. As such, these should be part of the conversation about improving graduate business curriculum even though many of these programs are not yet addressed in the literature. Symonds (2014) lists a few different MSM programs in the US to include Northwestern University, Dartmouth, the University of Michigan, and Babson college as examples.

### **Lack of Results**

Allio (2005) sees a lack of evidence that a course or program produces better leadership. This includes such well-known programs as those provided by the American Management Association, The Center for Creative Leadership and Outward Bound, as well as the National Order of Leadership School. Allio (2005) asks what these programs accomplished, and then explains that while these formal leadership programs may reinforce an individual's self-esteem and provide challenges, they do little to produce reliable, long-term change in conduct even though they may heighten the awareness of behavior in others.

Allio (2005) posits that the mastery of leadership activities requires experimentation and learning as well as practice, emphasizing that what is learned is not necessarily what is taught and educators must look at the limitations of current approaches to leadership development. Allio (2005) defines the role of competent and ethical leaders as "... Establishing and reinforcing the values and purpose, developing vision and strategies necessary to achieve vision, building the community necessary to implement strategies and initiating and managing the changes to assure survival and growth" (p. 1073). Doh (2003) sees leadership as a combination of skill and behavior, both of

which are necessary for effectiveness and can be learned; yet, there is a lack of literature and research to guide academia in curricular improvements.

### **Underlying Assumptions**

Emulti et al. (2005) also suggest the current underlying assumption in most scholarly work is that people can grow, learn and change, and this enhances effectiveness. As previously noted, traditional management and leadership concepts contradict this concept if trait theory, charismatic theory, and aspects of other theories are supported. With the current speed of change, leaders and managers must also be engaged in continuous learning and developing themselves to stay relevant. In the years following organizations who experienced precipitous declines such as Arthur Anderson, Enron, WorldCom, and Lehman Brothers as well as other Wall Street notables, it is also appropriate to review the effectiveness of leadership based on some of these leadership failures and review how leadership education is currently developed and delivered to determine effectiveness.

### **Focus on the Individual**

As noted earlier, traditional leadership approaches in business schools focus on the individual, as illustrated by Payette & Libertella (2011) who provide an example of a current approach to teaching in MBA programs. They offer insight and advice for emerging leaders rather than senior leadership. The authors introduce six general behavior categories, describe each in some detail, apply a behavior, and then draw conclusions. Payette & Libertella (2011) further explain the need to observe successful leaders and note what they have done to enhance their own careers, which includes but not limited to scanning company communications for clues about values and rewards to get a sense of leadership expectations. The six behaviors Payette & Libertella (2011) include: 1) get your career moving, 2) work hard to be noticed, 3) think about your decisions, 4) demonstrate broad-based knowledge, 5) ambition is good, and 6) going to work. This paper also assumes that MBAs have little to no real work experience and the approach is a self-focus, as opposed to a focus on improving the organization. A more realistic approach may assume more students in graduate school have some work experience, e.g., military students.

While this may be sound advice, such information is also very limiting in that there is little benefit to the organization involved, and focuses on the future career of the graduate rather than addressing current organizational issues relating to management and leadership. Gosling and Mintzberg (2004) support this, noting that MBA programs encourage only personal learning and that participants self-select to enter graduate programs to better develop personal talent which in turn demands a higher price. They explain that this may be why so many self-serving attitudes exist in management, as reflected in executive salaries. In contrast, NIST and The Baldrige Framework (2017) offer specific behaviors aligned with the Core values and concepts which are focused on the organization.

### **Product Specificity Requirement**

A final challenge inherent to leadership education is the resistance within academia partly due for the demand for specific outcomes that are tangible results of leadership education. The current



curricula in leadership appears to fail in efforts to produce leadership required for dynamic business environment (Emulti et al, 2005).

### **THE CALL FOR CHANGES IN LEADERSHIP EDUCATION**

The calls to restructure business curricula are found not only in North America and United Kingdom. Such calls are also found in Asia (Muenjohn et al. 2016). The need for change in leadership education is driven by globalization and an increasingly dynamic work environment. Emulti et al. (2005) propose a systemic approach in leadership education calling for a multidisciplinary approach, a global perspective, and strong ethics education that is integrated into functional areas. Allio (2005) also proposes a systemic approach which requires the development of leadership skills through practice to benefit organizations as opposed to focusing on the individual and the goals of the individual. This supports empowerment for employees as well as the process perspective.

Emulti et al. (2005) sees the need for a holistic approach which must have engagement and participation from employees and requires skills in analysis, oral and written communication and problem-solving. This also requires the development of interpersonal skills, developing strong business relationships, conflict management skills and cultural sensitivity. Practical business skills such as training and coaching are necessary, as are realistic experiential exercises to include case studies and real-time learning, such as using student work experiences, to develop technical, interpersonal and conceptual aspects as well as strategic thinking and decision-making. Internships and on-the-job training may be best positioned to meet this need (Emulti et al, 2005). Contrary to common assumptions, Hartman, Scott and Miguel (2015) determined that the ubiquitous use of case studies was not very effective as a personal development tool.

Hay and Hodgkinson (2005) propose that business schools need to improve in application and development of "practical" leadership skills. This may require us to conceptualize leadership differently, because leadership theories, in many ways, are of limited use for management educators and may be inconsistent with organizational goals.

An alternative way to look at leadership is proposed by the authors and that is to adopt a "process-relational" approach. This approach recognizes that everyone in organizational settings is continually seeking to make sense of conflicting purposes and goals. Looking at an organization in process and relational focus means that activity and meaning making are created by those in the organization based on their culture and their relationships. This also goes beyond the concept of managing and organizing work, and represents a way of acting and discussing organizing and managing which overall creates a larger framework and takes more into account such as subtle aspects of work behavior.

These approaches provide the concept of leadership more realistically than the approach of power and inspiration, and propose that someone focused on leadership should work alongside others. This is aligned with working through processes and moves away from a charismatic or transformational leader who may possess special insights or abilities, thus making leadership attainable for any employee (Hayes & Hodgkinson, 2005), also add how a process focus offers a

more realistic approach and focuses on leadership as emergent and including contributions of others.

Successful contemporary leadership practices focus on members of the organization as contributors, thus supporting the concept that leadership does not require an exceptional individual; instead, leadership requires a set of people who collaborate to perform leadership functions. This is a significant change from traditional leadership, whereby single individuals and their unique skills and behaviors are decision makers for an uninformed and un-involved set of followers. A leader does not have to be someone who has all these answers or the solutions. By engaging the knowledge and experience of employees, better solutions are likely to be available. Leadership should teach (Senge, 1990), and this includes learning how to ask the right questions. Such an approach moves the focus away from followers with a unitary leader and toward collaborators whose mission is to accomplish organizational goals. This means it is more effective to view leadership as a collaborative process accomplished through interaction that provides a more rational and grounded notion of leadership. Consequently, this presents additional opportunities and approaches for teaching leadership within the organization as part of the process improvement efforts.

Hay and Hodgkinson (2005) propose that the process perspective for leadership is more realistic for the challenges in today's organizations and can be far more helpful to those engaged in leadership roles and practices. This grounded concept of leadership proposes to move away from individualistic approaches on a single person who can influence followers and toward the concept where members of the organization can be contributors to the process of leadership. The long-term possibilities, where many can influence the survival of the organization to include communication, conflict resolution and other influencing and persuasive aspects, includes a focus on developing individuals through empowerment and participation. This focus of participation in an applied approach to leadership would draw on leadership experiences in the classroom, not only from the instructor but from the students, and can be reinforced through reflection and sense making.

Such an approach would require the leadership instructor to join the collaborative process of learning as opposed to remaining a part as an expert guide, helping others make sense as part of the new approach and new conception of leadership. This participative approach between the instructor and the students requires instructors to be interactive in the learning process as opposed to observers or those who only issues grades. This method involves the instructor and students sharing their experiences and observations either from practical experience or research, drawing from experience, where appropriate, to inform practices. These stories provide significant and powerful learning approaches to help with the critical examination of leadership.

Carson and King (2005) propose that leadership concepts must be better defined and understood so leaders can make positive contributions. They propose that more benefits can be attained through advancing and refining how we teach leadership and devote less time to studying traditional leadership. Carson and King (2005) also suggest we would be improving our teaching if we encouraged and used empowerment, because the 21<sup>st</sup> century has moved into flatter organizations with less hierarchy. Their proposal is to define leadership by one's ability to respond to empowered situations through self-leadership as opposed to focusing on traditional



characterizations which are historically found in hierarchical, traditional views of work in organizations.

Gosling and Mintzberg (2004) provided the structure around which updated curriculum should consider when reevaluating and developing new management education, and this includes seven tenants, some of which are discussed here. Gosling and Mintzberg (2004) suggest it should be focused on practicing managers, partly because the creation of managers does not occur in a classroom, but in the workplace. In addition, management education, while recognizing the importance of theory in cases, is still limited, and the focus should be on leveraging work and life experience. The emphasis should not be on teaching, but on learning.

Gosling and Mintzberg (2004) also emphasize that one of the most important aspects of learning is reflection. There is a need to reflect on experience which can be accomplished in a university setting. Finally, developing leadership abilities in employees should result in the development of organizations because of the organizational impact participants in these programs by diffusing what they learn into the organization and thus create change based on what they learned in the program. For education to create an impact such as this requires a significant departure from the way leadership and management are currently taught, and through all this education must be an interactive process through which reflection, theory and experience are engaged in the learning process.

Allio (2005) proposes that effective leadership programs focus on skill building to include rhetoric, critical thinking, communications and negotiation. He believes that these skills may be taught even though translating these into competent skills requires practice. Leadership also requires an understanding of the industry context market and economy as well as an understanding of the organization in which they work to include competencies, weaknesses, cultural biases and strengths. Cognitive processing is required to develop self-knowledge which can also be enhanced through feedback from others and personal reflection as well as learning from the experience of peers. As a result, leadership skills must be developed through positions like those of apprentices which provide opportunities to gain experience in a leadership role, learn from others and acquire the knowledge necessary for successful leadership. Mentoring and continuing feedback on performance must be provided, but this goes beyond case studies of hypothetical situations. In graduate education, it is not unusual for students to already have work experience which can be the basis of scenarios and analysis in the course curriculum.

## **INTEGRATING THE BALDRIGE FRAMEWORK INTO LEADERSHIP EDUCATION**

Latham (2012) provides a framework based on the Baldrige Framework (National Institute of Standards and Technology [NIST], 2017) that allows for collaborative design of systems and processes which integrate appreciative inquiry, systems thinking, systems design and sustainability. The Framework has been updated and refined continually since its inception over 25 years ago and represents best practices and lessons learned from the various Malcom Baldrige National Quality Award recipients. By focusing on an applied, grounded approach to learning leadership through a process orientation, the Baldrige Excellence Framework (NIST, 2017) provides a systems approach that integrates leadership into the organization and places leadership and responsible and accountable roles for all the organizational processes through senior

leadership responsibilities, governance, societal responsibilities and the development and implementation of organizational strategy. These areas represent the first two Criteria of the processes and frame the key functions necessary for the rest of the Criteria to work effectively. The remaining Criteria include: Customers, Measurement, Analysis and Knowledge Management, Workforce, Operations, and Results. As suggested by Hayes and Hodgkinson (2005) and Allio (2005), a systematic process approach directly involves leadership in all aspects of the organization as well as requires participation from organizational members. This is an integral aspect of the Baldrige Framework, thus allowing opportunities to develop leadership skills for all members, experience in organizational processes and opportunities to contribute, thus providing additional opportunities to experience empowerment.

From a leadership perspective, the Framework (NIST, 2017) directs not only senior leadership behavior through the organizational governance system and the evaluation of senior leaders in the governance board, but it also focuses on legal and ethical behavior as well as societal responsibilities. The Strategy Criteria, which follows the Leadership Criteria, is driven by senior leadership and focuses on strategy development, the strategic planning process, work systems, core competencies, key strategic objectives and innovation. When using the Baldrige Framework as a leadership tool, the responsibilities and the Framework directs behavior by detailing key components necessary for process improvement, strategy development, workforce engagement and empowerment, operations and customer focus.

By examining the Baldrige Framework, Latham (2012) suggests that aspects of multiple leadership theories are integrated into the Framework, and may include elements of situational leadership, transformational leadership, servant leadership, and transactional leadership. Because the Framework is an applied model, this allows for application an organization in which students may be employed by examining different areas of the Framework and using work experiences to analyze and apply the model. Most importantly, the Framework allows for collaborative design of systems and processes between leadership and employees (Latham, 2012), thus providing opportunities for employees to develop and demonstrate leadership skills and abilities.

Participation in the processes allows employees to develop an understanding of the capabilities of empowerment, the processes in the organization as well as developing meaning and creating autonomy (Voegtlin, Boehm and Bruch, 2015). As Voegtlin et al. (2015) acknowledge, in a training environment, empowerment has an important psychological aspect that can make a positive contribution to employee development. Finally, Prybutok and Cutshall (2004) endorse the use of Baldrige as a leadership model, because their research clearly demonstrates the relationship between the executive leadership system and the Criteria in the Malcom Baldrige National Quality Award.

Of particular importance to leadership education is the Baldrige requirement for continuous feedback. Executives who lead companies that have received the Baldrige Award indicated they were especially pleased with the feedback they received (Hamilton, 2003). The expectation for feedback is one of the criteria that Conger (1992) gave as essential to leader education. Continuous feedback throughout a leadership education program is essential to successful education. In the table below, methods of deploying the Baldrige criteria in a meaningful manner to guide leader education are suggested. These examples indicate how Conger's expectations for leader

development can be met while taking advantage of the Baldrige framework. The Baldrige Leadership criteria are presented in italics while examples of student assignments are in the adjacent column. These examples were chosen, because they can be used in most leader education courses.

Table 1: Application of Baldrige Leadership Criteria 1 to provide a framework for higher education leadership programs to enact the Baldrige Criteria.

Criteria	Criteria Expectations	Student actions to enact Baldrige criteria
<b>1.1 (a 1) Setting Vision and Values</b>	<i>Promote the vision and values with the workforce frequently and consistently; connect the values with day-to-day activities for employees at all levels.</i>	Students are required to study and assess vision and values or organizations in operations as a segue to writing both visions and values as part of a larger plan for change. Mission development includes integration of values while vision provides focus for strategy development. Personal missions support personal growth in students (Hartman, Allen, & Miguel, 2015) and support internalizing values of individuals. The assignment meet's Conger's (1992) expectation for personal growth.
<b>1.1 (a 2) Promoting Legal and Ethical Behavior</b>	<i>Be a consistent role model for legal and ethical behavior; expect the same of the employees and remind them frequently. Consistently support a code of conduct (behavior) and ethical standards so these become common knowledge, and have processes to review noncompliance incidences to learn what needs to be further addressed; include these in future training. Recognize employee examples of ethical behavior and share the stories.</i>	Students are given a working code of conduct which guides all actions throughout the educational program. Values are clearly stated, and students give examples of how they play out the values. Because lecture and case studies are not associated with personal growth (Hartman et al., 2015) , any lecture must be short and well developed, providing focused knowledge. Talking about being a model is less effective than being a model. This assignment speaks to Conger's (1992) leader development expectation of personal growth.

<p><b>1.1 (b) Communication</b></p>	<p><i>Establish and encourage direct conversations with employees at all levels to hear their ideas; involve them in decision-making, use their ideas to improve the organization at all levels; encourage them to share comments, especially about how to improve customer satisfaction. Share the rationale for decisions especially as it relates to organizational values, goals and mission.</i></p> <p><i>Be the voice of change, and remind employees about the reason change is needed; invite them to be part of the change. This include changes to all areas of the organization not limited to policies, guidelines, procedures, and processes. Reinforce change as a necessary effort to align mission, goals, and values. Develop systems of obtaining feedback from customers, employees and all stakeholders to help inform decision-making and strategic planning.</i></p> <p><i>Become directly involved to motivate the workforce, encouraging high performance focused on the customer; participate in reward and recognition programs personally, making sure these are aligned with organizational values, the mission, and the goals.</i></p>	<p>Role play provides students an opportunity to experience different perspectives. One such role play, “China From the Inside,” can be found at Merlot.org as a learning object. This assignment speaks to Conger’s (1992) leader development expectation of conceptual understanding.</p> <p>To enact the “voice of change” expectation for leaders, students complete a change plan for an organization currently in operations. The plan includes a comprehensive analysis of both internal and external environments, and includes a fully developed implementation plan. The plan is fully aligned with organizational mission, values, and goals. This plan focuses on building leader knowledge and skills.</p> <p>To internalize the leadership challenge of motivating others, students read historical leaders and discern the approach used by those leaders to motivate others, all within context. This provides a background for essays that address specific questions about the nature of leadership. This assignment addresses Conger’s (1992) leader education expectation of conceptual understanding.</p> <p>Students work in teams to complete improvement plans that address teams that are currently in operations. This assignment includes team contracts, improvement plan, communication plan, and presentation of written work.</p>
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<p><b>1.1 (c1) Mission and Organizational Performance</b></p> <p><b>Creating an Environment for Success</b></p>	<p><i>Create an environment in which the organization can be agile and achieve the mission. Support employee learning and development; encourage intelligent risk-taking and support efforts that lead to innovation. Do not punish failure; instead, support efforts that align with the mission and the goals to encourage employee participation.</i></p> <p><i>Establish a culture in the workforce that encourages employees to engage with customers in positive ways and learn how to satisfy customers.</i></p> <p><i>Develop and train employees to be leaders regardless of what they do in the organization; prepare employees to take over leadership positions by encouraging them to make positive contributions to the organization in all areas.</i></p>	<p>Developing a full bodied quality initiative grounded in the Baldrige framework for an organization currently in operations allows students to move from the classroom to the workroom. This assignment requires a well aligned approach to problem solving. These assignments also create a link between school and work when they are forwarded, after corrections, to the operations. This speaks to Conger's (1992) expectation for feedback, both giving and receiving. This also provides a significant source for service learning (Hartman et al., 2015).</p> <p>Assessing culture of an organization currently in operations using a tool such as Johnson and Scholes's (1997) Cultural Web contributes to a deep understanding of the complexity of culture.</p> <p>Both presentations and small group work are beneficial to develop skill building and personal growth (Hartman et al., 2015) toward preparing a leader to develop and train others.</p>
<p><b>1.1 (c 2) Creating a Focus on Action</b></p>	<p><i>Provide a clear focus on actions that improve organizational performance; identify the necessary actions, create value, balance the needs of customers and stakeholders. Demonstrate personal accountability for organizational actions.</i></p>	<p>Completing a comprehensive strategic plan enacts this criterion. At the heart of this assignment is a comprehensive set of diagnostics that includes both internal and external analysis. This is not a simple SWOT analysis. This is a full bodied analysis built on Daft's (1995) model of the external environment as well as the use of multiple tools to assess internal structure, technology, paradigm, culture, and organizational functions. This is not a small piece of work. This assignment goes to Conger's 1992) leader development expectation of skill building.</p>

## RECOMMENDATIONS

The literature is clear on recommendations, and the authors of this paper strongly recommend that we act on these recommendations. To summarize, addressing the issues currently in graduate leadership education requires a focus in multiple directions. This means changing not only what we teach, but also how we approach the concept of developing effective leaders – moving from a traditional systems control perspective and a focus on the individual to one of process improvement from an organizational systems perspective. Underlying assumptions on which traditional leadership approaches are based, to include leadership effectiveness as defined by Senge (1990), call for leadership to be teachers, designers and stewards.

The teaching required in organizations also assumes that employees are capable of learning, participating and learning how to act with empowerment. This implies the need to minimize theory that separates leadership from employees. This also implies unique abilities or traits can be developed and makes the argument for a collaborative approach to leadership. This does not eliminate the need for organizational leadership as indicated by the Baldrige Framework (2017), but, instead, emphasizes the critical nature of leadership functions at the highest level through teaching, designing and strong stewardship to the organization. This also supports the need to develop employees, so they can meet the demands necessary to participate in leadership and be empowered to make contributions to organizational processes and life.

At an application level, and to provide the practice necessary for effective leadership, faculty need to develop ways to practice, rather than relying on hypothetical cases that are commonly used for teaching purposes. We recommend contacting businesses in the community to offer help as one way to further the impact of a leadership program. At the same time, faculty need to provide continuous feedback to both students and program directors about the impact of such programs. The holistic approach called for in the literature not only applies to developing leadership, but it applies to improving organizations. Increasing opportunities to practice and apply leadership skills benefits students as well as employers, and this holistic approach is explained and detailed in the Baldrige Framework (2017).

Perhaps unique to graduate education is the work experience that many students bring with them, as the numbers of non-traditional students continues to grow. This work experience provides significant opportunities to reflect on those work experiences and apply leadership concepts and analysis which are more meaningful, because the students have experienced the advantages, questionable outcomes and, sometimes, abject failures of leadership that can serve as important discussions in the course and as lessons for others as well as opportunities to understand what went well, what could have been better, and why.

While we must begin immediately, it is unlikely everything that needs to be done can be accomplished initially. Two key areas mentioned in the literature that are necessary for good leadership involve how to empower employees and how to use reflective approach to improve leadership. Aleksic (2016) draws attention to the role of followers as part of the organizational leadership process, and the need to adjust leadership styles and develop the roles of followers so they can actively participate in the leadership process. This would mean moving employees away from the traditional “follower” approach to providing opportunities to exert influence and

participation in the leadership process. This supports the servant leader approach, and supports the achievement of mutual trust and developing a relationship with the leader.

This also opens possibilities for creativity and taking initiative. Aleksic (2016) also explains that leadership processes are not permanent structures but represent a temporary balance of power connected with specific situations and should imply rotation of roles, but more literature is needed to address how these relationships develop and can be implemented. Muenjohn et al (2015) propose that curriculum is the basis for success and that curriculum design is not yet developed to properly use reflective practice of knowledge. Introducing reflection as part of the leadership process to consider what went well, and what can be improved is part of a continuous improvement cycle supported by the Baldrige Framework (2017). If we do not reflect and learn from what we have accomplished, it's not clear how we can make improvements going forward.

## CONCLUSIONS

The time is now for higher education to explore and implement new ways to approach leadership education in colleges of business. Theory alone is inadequate, and students are lacking skills and abilities necessary to be effective leaders, because education often leaves them without experience, practice, application and reflection. Without changes in the way we approach leader education and allied concepts, we cannot realistically expect changes. Because organizations and researchers have asked for change, it behooves academia to answer this call. The development of new graduate business programs is ongoing to address specific needs, and the authors of this paper argue that leadership is necessary across all the programs and should be part of the consideration for every new program. Until organizations can demonstrate effective leadership, this effort should continue as will the myriad problems that result from poor leadership. Along with this call for improved leader education, we also, like others, want to emphasize the importance of developing criteria and measures related to what constitutes effective leadership based on organizational needs. Without goals that clearly specify what must be accomplished, goal attainment is unlikely to be met.

While some graduate business students can reflect on their personal experiences, and these experiences can be integrated into the classroom to provide learning opportunities for everyone, it is especially important to provide such opportunities for students who have yet to establish a career and gain the experience necessary to understand why effective leadership is so important, what effective leadership looks and feels like, and what it takes to be an effective leader. If we cannot step up and meet this challenge, our organizations will continue to suffer from underperformance. Because the Baldrige Framework (2017) provides a roadmap to an organizational focus through process improvement, we can develop practitioners with useful knowledge, skills and abilities toward improving organizational lives for all when lead by those who can apply this powerful perspective.

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## **STUDENTS' USE OF FACE-TO-FACE AND COMPUTER-MEDIATED COMMUNICATION IN GROUP ASSIGNMENTS: A "U-SHAPED" MODEL**

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### **ABSTRACT**

The focus of this study is how students use both face-to-face (FTF) and computer-mediated communication (CMC) to complete group projects for class. Specifically, our research question is: *How do students use FTF and CMC throughout the process of completing group projects as course assignments?* We conducted two focus group interviews to answer this question. All students came from a mid-sized private, mainly commuter Midwestern university who had experience mainly with on-ground courses, and some blended and online coursework. We found that students: are more satisfied with FTF interactions; believe that they perform better in FTF situations; prefer FTF meetings; use technology for efficient and task-oriented activities; and, generally follow a "U-shaped" curve when combining FTF and CMC interactions during group projects, i.e., more FTF at the beginning and end of a group project with an increased usage of CMC in the middle, after trust is developed. Faculty should be aware of this information when making group project assignments in their courses.

*Keywords:* Group projects, Face-to-face interaction, Computer-mediated communication

### **INTRODUCTION**

George did not look forward to working with other students on his group term project. It took him over an hour to get to school and he did not like the thought of having to come to campus to have face-to-face sessions with his teammates. He hoped to minimize the number of face-to-face sessions and complete most of the project using computer-mediated communication. Donna also lived off campus and used computer-mediated communication when necessary during the semester, but preferred to work on this group project mainly in face-to-face meetings. This not uncommon incident shows how both face-to-face (FTF) and computer-mediated communication (CMC) interaction can play an important role for students in completing group assignments in their on-ground courses.

A confluence of events shows the changing landscape of social and work interaction: the use of social media is dramatically increasing; work is completed by teams more than ever; class projects within a business school setting on both the graduate and undergraduate levels are assigned to groups; technology has made the digital devices much more accessible; and, virtual teams and telecommuting are on the rise. This suggests that interaction is changing from mainly FTF exchanges to more frequent communications carried out electronically. In addition, course material is provided less by instructors in front of a classroom than ever before. Indeed, even exchanges

between students and faculty outside the classroom tend to be more CMC as emails and text messages have become the preferred method of interaction rather than meeting during office hours. These now common circumstances led us to develop our research question: *How do students use FTF and CMC throughout the process of completing group projects as course assignments?*

In this paper we: investigate the role students perceive technology and FTF communication play in developing and improving interpersonal trust; delineate when each communication process is efficient and effective in project completion; discuss perceptions of the impact of FTF and CMC on the final stages of project completion; reveal students' preferences for and uses of CMC and FTF when working on group course assignments; conclude that effective use of both CMC and FTF in completion of on-ground group projects follow a "U-shaped" curve; and, include recommendations for faculty to consider when assigning group projects during on-ground classes.

## LITERATURE REVIEW

Recent research has discussed the opportunities associated with the use of CMC tools in the classroom (Cronin, 2009; Granitz & Koernig, 2011; Huang & Behara, 2007; Kaplan, Piskin, & Bol, 2010; Lowe & Laffey, 2011; Rinaldo, Laverie, Tapp, & Humphrey, 2013; Sendall, Ceccucci, & Peslak, 2008), but has not examined the perceptions and experiences of students with CMC in their group interactions.

Given the proliferation of new communication technologies and the increased usage of work teams, it is not surprising that many researchers have been investigating the impact of digital communication on higher education. Most researchers investigating CMC have taken the educator's perspective while presupposing the students' preferences, experiences, and real usage in the educational environment (Demirbilek, 2015; Muñoz & Wood, 2015; Stratton & Julien, 2014; Warner, 2016). Here, we probe what our students think about different communication methods they use for group project interactions.

Team projects in classes are used more often today than ever before. This is true in a business school, which tries to prepare graduates directly for the work environment they will soon be entering, if they are not already employed (Grzeda, Haq, & LeBrasseur, 2008; Hunsaker, Pavett & Hunsaker, 2011; Lee, Smith, & Sergueeva, 2016). In addition, the use of CMC and virtual teams due to an increase in the use and availability of technology suggests more of these group projects are being completed virtually rather than by FTF.

Advances in information technology have created new challenges for team processes. Building trust within a team is recognized as a key ingredient for team success (Davis, Schoorman, Mayer, & Tan, 2000; De Jong & Elfring, 2010). For example, Breuer, Huffmeier, and Hertel (2016) suggest that trust facilitates specific risk-taking behaviors such as reducing defensive control, open discussion of conflicts and mistakes, mutual feedback, and sharing of confidential information, which in turn should lead to more efficient coordination of team members' resources (time, effort, knowledge, etc.).

Trust has traditionally been seen as the result of individual judgments of past behavior (Lewicki & Bunker, 1996; Mayer, Davis, & Schoorman, 1995), what others call cognitive (Kramer & Tyler,

1996) or knowledge-based (see, for example, Mayer et al., 1995) trust. This traditional view of trust would predict low levels of initial trust in virtual teams when team members have little past history and use CMC exclusively which can limit direct personal observations that allow members to perform effective cognitive trust assessment (Robert, Dennis, & Hung, 2009). For instance, team members cannot observe the amount of effort others are expending or overhear what team members say when they are interacting with others. Even though swift trust, a presumptive form of trust, seems to exist in virtual teams (Jarvenpaa, Knoll, & Leidner, 1998; Jarvenpaa & Leidner, 1998), past studies found that swift trust appears to be fragile and often wildly inaccurate (Crisp & Jarvenpaa, 2013; Lewicki & Bunker, 1996; McKnight, Cummings, & Chervany, 1998; Meyerson, Weick, & Kramer, 1996). This represents a critical paradox for virtual group work (Wilson, Straus, & McEvily, 2006).

Breuer et al., (2016) concluded in their meta-analysis that when virtual interaction is more frequent, team trust is more important for effectiveness. When social context cues are missing, increased depersonalization, lower cohesiveness, and less social conformity often result (Szeto & Cheng, 2016; Lu, Fan, & Zhou, 2016). Consistent with this, empirical studies have found that interaction in computer-mediated groups is more task-oriented and less personal than interaction in FTF groups (Richardson, Maeda, Lv, & Caskurlu, 2017; Weidlich & Bastiaens, 2017). Computer-mediated teams were also found to struggle with their intra-team processes (Brahm & Kunze, 2012; Indiramma & Anandakumar, 2009; Staples & Zhao, 2006).

On the other hand, FTF is so rich since it enables not only the spoken language and other verbal cues but also body language (Lantz, 2001). This gives the communicating parties a better basis for understanding each other compared to purely CMC (Lantz, 2001). Researchers found that students were significantly more satisfied with FTF collaboration than computer-mediated learning (Ocker & Yaverbaum, 1999; Summers, Waigandt, & Whittaker, 2005). In this regard, much of the literature concludes that FTF interaction at the beginning of a group project enhances the level of trust. Hambley, O'Neill, and Kline (2007), Horwitz and Horwitz (2007) and Lantz (2001) advise project teams to have at least an initial FTF meeting before following up with virtual team interactions. For instance, Kennedy, Vozdolska, and McComb (2010) found in their behavioral simulation study that mixed-media teams (i.e., first as FTF and second as computer-mediated) had improved participative decision making over only CMC teams. Teams with few opportunities to meet FTF have been known to be highly vulnerable to process losses and performance problems (Gibson & Cohen, 2003; Lipnack & Stamps, 2000).

According to "Average daily media use in the United States from 2012 to 2018, by device (in minutes)" (Statista, 2017), in 2015, an average American spent 177 minutes on Smartphones each day, which was up from 88 minutes a day in 2012. Some people spend more time and others unlock their phones hundreds of times a day to quickly check texts, Facebook or email (Hall, 2014). In particular, Millennials are spending over four hours per day checking social networks and using email, text, and messaging apps (McCarthy, 2014). Those aged 18 to 29 have always been the most likely users of social media and 90% of young adults use social media, compared with 77% of those aged 30 to 49 (Perrin, 2015). However, the frequent and prevalent use of the newest communication technology does not always mean a preference for virtual interaction. Kvavik's (2005) survey of 4,374 college students found that they were frequent users of various virtual communication media but that high levels of use did not necessarily translate into preferences for

use of technology in the classroom. More recent studies found that despite the popularity of technology, students expressed a preference for FTF communication (Robinson & Stubberud, 2012) and reported challenges they experienced in virtual communication, such as greater difficulty when using it (Granitz & Koerning, 2011), and frustration with ever-changing technologies (Gikas & Grant, 2013). Faculty, however, have not paid enough attention to students' experiences with new communication technology even while increasing the use of more digital elements in courses (Neier & Zayer, 2015).

This literature review identifies some gaps in our knowledge regarding students' use of both CMC and FTF interactions when working in group situations for purposes of completing class assignments and projects. This study helps to fill in the gaps.

## METHODOLOGY

To investigate our research question, we applied a qualitative research methodology using two focus group interviews. We analyzed our data using QSR International's (2012) NVivo qualitative data analysis software (Version 11) as described below.

### Data Collection

Krueger and Casey (2008) suggest focus groups should include between five and ten participants, as smaller groups show greater potential to have the opportunity to share insights and yet provide a diversity of perceptions. Our study is based on two focus groups that had nine and seven participants, respectively, and all of the interview participants (n=16) were undergraduate students at a mid-sized private, mainly commuter university in an urban center of the Midwest United States. Their academic majors included business administration, political science, social work, nursing, and undecided. While all focus group participants were exposed to both blended and online courses, their programs consisted mainly of on-ground coursework, and their experiences reflected this reality.

***Focus group 1.*** The first group consisted of nine people. Eight of these participants were members of a student advisory board from the business school. All advisory board members were on the Dean's List. The ninth person was a nursing student who attended in place of her business roommate. This group was very homogeneous. All upper-class undergraduates, they were excellent students with high grade point averages. Comments made during the focus group interview suggested they were highly motivated and committed to gain as much knowledge and experience as their college careers could provide. They generally knew each other, had been in several classes together and felt very comfortable in their interactions.

***Focus group 2.*** The second focus group was comprised of seven sophomore level students. Their academic majors included business administration, political science, and social work. While they were all from the same class, they had not previously worked with each other in small groups, nor had they much group-related class work experience. Their comments throughout the interview made it clear that motivation, commitment and performance levels were much more diverse and reflected the broader distribution of grades found throughout the student body. Unlike the responses from the first group, for example, their comments often wandered off topic.

Each focus group interview was conducted in a one-hour FTF meeting. The same moderator initiated the focus group discussion by providing an overview of the research area, introducing the other researchers, and allowing each participant to introduce him/herself briefly. The moderator, a faculty member teaching the sophomore class from which the second focus group was recruited, introduced each topic area and insured each person had the opportunity to fully answer and respond to both the question and each of the other responses before going on to the next area of interest. He further encouraged our participants to include any kind of communication tools that provided quick accessibility in any description of technology-based communication.

All the participants in the focus groups were asked to share their experiences and thoughts about their use of technology in team projects. While the research question acted as an overall framework, a patterned interview guide was created to insure both focus groups covered the same questions. The interviews were sufficiently flexible, however, to allow for the emergent nature of the interview conversation. Both of the focus group interviews were recorded by using a digital voice recorder and transcribed later. Additionally, notes about student statements were written down by each of the researchers to assist in making connections between the interviews and the research question.

The first focus group provided excellent information on all areas of interest. Yet we believed that this group was very homogeneous. And while focus group selection can be based on ability to provide information to the interviewer (the notion of applicability—Rabiee, 2004; Richardson & Rabiee, 2001), and could, perhaps should, be homogeneous along one or more criteria relevant to the research (Krueger & Casey, 2008), we wanted to make sure that we included a second focus group to provide additional information that might be outside the perspective of the initial focus group members. The second focus group, with a broader, less homogeneous background, did indeed provide additional information.

### **Interview Guide**

Based on our experiences and literature review, we created a patterned interview form comprised of three basic questions: what role does technology play in how you interact with members of your group; what are your experiences with FTF and CMC meetings (what impact did each play in developing trust and creating satisfaction, and what types of interactions, project or non-project related, did you have; and, how would you describe a really good group, a really good experience, and then compare that to a not so good group to help us understand the differences. We expanded upon each question based on participants' responses.

### **Data Analysis**

The process of qualitative analysis aims to bring meaning to a situation rather than the search for truth, which is the focus of quantitative research (Rabiee, 2004). Although the spoken language is recorded, it is recommended that a reflective diary should be kept by the facilitator or moderator (Krueger & Casey, 2008). During the focus group interviews, the researchers individually reflected on discussions and interactions as they occurred so that we could begin to make sense of the data that were being generated. Debriefing sessions after the interviews provided an opportunity for the researchers to discuss general impressions and initial

observations of the focus groups. Our research assistant then transcribed the audio files of the focus group interviews and used QSR International's (2012) NVivo qualitative data analysis software (Version 11) to import them for analysis. Three basic themes were identified by the NVivo analysis and our debriefing sessions and followed closely the three general questions of our patterned interview form. Our overall research question: *How do students use FTF and CMC throughout the process of completing group projects as course assignments?*

## RESULTS

Both focus groups were interested in and excited to talk about the topic of our research question. Since they were directly involved in group project assignments in their coursework and performance issues are critical to students, the issue how to best complete a major part of course grades was dear to their hearts. All students participating in these two focus groups are in primarily on-ground-based programs at a moderate-sized Midwest private, commuter university. Therefore, these comments reflect the students' experiences mainly with on-ground coursework and some blended and online courses.

All of the participants in both focus groups indicated that FTF meetings were both critical (necessary) and desirable in initially creating a level of trust that could then be applied throughout the semester for group projects and assignments. As one member stated: "the FTF builds the relationship, but the social media enhances the relationship." Also, "first we need a FTF meeting to get to know each other, then technology to expand the trust. Technology first is not as trust-building." Likewise, they stressed the notion that while both CMC and FTF interactions had positive contributions and drawbacks, CMC meetings were more effective after initial FTF meetings took place so trust, collaboration and greater comfort in future interaction could first be developed.

In addition, most of the members in both focus groups noted how FTF interaction not only improved initial interpersonal relations, it also provided a framework for enhancing subsequent CMC effectiveness. One participant, for example, indicated: "once you do meet a person, you're more comfortable to ask them questions...or text them, but at least you're open to how their personality is, and knowing that 'ok, they're going to answer me, and answer my question if I need help.'" And while FTF meetings are much less efficient, and also lead to more off-topic interactions, these focus groups agreed that off-topic discussions were actually a positive aspect of group work since they enhanced the development of both relationships and trust between group members. As one student stated: "I also think another advantage for meeting FTF as opposed to doing it all social media is that when you meet FTF, you create a relationship and it brings open-mindedness or openness between the people." Another comment dealt with the ease with which ideas could be communicated within the group. The best group experiences occurred when "things just flow more naturally. As he was saying, feeling comfortable with bouncing ideas off each other, and knowing 'hey maybe this idea won't be accepted,' but because I feel comfortable with the people I'm with, I can at least throw it out there."

Most participants indicated that early FTF meetings rather than CMC made the class project "way better." For example, one person stated: "you should, first, get to know them, so [when] you do meet up so you know how these people are, like a standard, know what kind of work they do."



Another student indicated "I would definitely establish more FTF meetings to establish trust, get to know who that person is. Test their skills, stuff like that, so we can work together to the best of our advantage." Furthermore, "Because I feel more comfortable with them to begin with, I know we can do better work." In addition, "when we can get everybody's input and feel comfortable with it, it works better." "Everyone pitches ideas to each other and everyone can collaborate like that. When you go through social media...[I]t's just not an ongoing conversation or an ongoing thing to stimulate ideas."

CMC interaction, on the other hand, is viewed as being much more structured, which makes it more efficient – you can ask a question and get a quick response. All participants indicated that FTF meetings were often a hassle, particularly because group members had a diversity of schedules and life commitments that interfered with group meetings. This inefficiency of FTF meetings underscored the critical role of CMC interaction during the interim phases of group projects. It allows getting back to work and completing the task without having to take the time to set up an FTF meeting, travel back and forth, and then get back to working on the task. Consistent with many comments, one participant said "when you're working on so many different schedules, it's nice to be able to log in, edit what you need to, and then get out, and then utilizing the text messages as well, you can say 'hey I did something to the document, let me know what you think.'" Group members supported the statement:

I think there are also instances where it's easier to use instant communication through technology because you could send each other links, you could send each other the document. And I feel like, in those situations, it's better to use that group chat, to all have the information.

Several students discussed that one benefit to the use of CMC is the ease of gathering and sharing information for group projects. Likewise, "social media is good for a division of labor. You can tell others what you are looking into so nobody else is looking at the same thing." CMC also provides a record of what was said and what information is available: "If you happen to forget something, you have that 'paper trail' where you're able to go back and look to see what everybody was doing and what your job specifically was." They also agreed with this comment, however:

When you go through social media, it's not an ongoing conversation. I'm going to send a text message or an email, and then maybe 20 minutes later you're answering like "oh why didn't they answer me" and you're thinking they didn't think about some of the things you were thinking about.

Toward the end of the semester, as group projects are being completed, FTF communication provides more than just the opportunity to socially interact. Several students in each of the focus groups found meeting with their group members to be more effective in understanding the contributions from each other. For example,

I'd say the best part of FTF too is not really the interaction, getting your point across...It's also the accountability. When someone shows up, they are like "oh yeah, I'm doing it, I got it, I got it" and then if they show up and they don't have anything they can't hide that at all, so it's physical, it's in front of you. That's one of the main benefits of FTF, everyone

stays on task and they have to have something by the time they show up or else they'll be ousted from the group. (Laughs)

Several responses indicated that CMC interaction near the end of a group project was often less effective. Four students indicated that CMC, while being more efficient, often provided an excuse to NOT meet, to NOT practice a presentation, even to turn in materials late. One response:

One of the downfalls...is students can use it as an easy out if they say "I had trouble transferring it from a word doc or something." It's an easy way out, you can tell your teacher you had trouble with the Google drive doc, or someone didn't give it to me first, or my Word wasn't updated.

Another student indicated "I've been in many presentations where we do everything on the Google drive, and then we use it as an excuse. 'Oh, let's practice the presentation on our own...and then we'll just meet up together and do the presentation.'"

FTF meetings also led to much higher impact after project completion on individuals' willingness to work with group members on future group projects. For example, they indicated that what they called "group dynamics" was the major determinant in the desire to work with these people in the future. While both focus groups came to this same conclusion, it was all the more remarkable for the first focus group, a highly motivated, grade-oriented set of students, to identify a non-performance criterion for determining who they would want to work with on a group project. When pressed, they indicated that the quality of social interaction was the most important determinant regarding whether to work together in the future, much more so than even the success of or grade on group projects. The moderator asked directly: "Would you work with that person again, the next time?" The response was: "If there was a good group dynamic." Members from both groups supported this notion. One observation reflected this view: "[if you] meet FTF, you actually become friends with the person in your group...you're more likely to say you've had a better experience...you're more likely to stay friends and talk to each other past the group..."

## DISCUSSION

Many researchers investigate and produce articles discussing how to use CMC in enhancing and improving the classroom experience from a teaching perspective (Demirbilek, 2015; Muñoz & Wood, 2015; Stratton & Julien, 2014; Warner, 2016). Rather, we are asking what the role of CMC might be in how students fulfill their group assignment responsibilities. Our results, discussion, and conclusions are based on students' observations when they have the option of how to complete group projects, that is, these situations could not occur in online courses since there would be no opportunity for students to participate in FTF sessions with their classmates.

These results strongly paint a picture describing when each of FTF and CMC interactions contributes most effectively to successful completion of group-based classroom assignments. Hence, our focus group members advocated the use of FTF meetings early in the group formation process for working on group projects. They stressed that CMC interaction at this stage of the semester would actually be less effective in the overall performance of the group. The most positive role of CMC interactions was identified as directly working on and completing the

technical part of any group assignment, and that CMC was much more efficient and effective than FTF meetings in this facet of the assignment. Finally, both focus groups supported the more effective use of FTF meetings near the end of the project completion process due to greater accountability and overall performance enhancement impact. From the perspective of the focus groups, then, the effectiveness and preference for the usage of FTF sessions during project completion follows a "U-shaped" curve - higher at the beginning, lower in the middle, and higher at the end.

At the beginning of this "U-shaped" curve, corresponding to the beginning phases of group development, both focus groups agreed that FTF interaction led to significantly more trust. Moreover, the focus groups indicated that FTF meetings were essential before they could confidently interact with those group members with whom they had no previous experience in group projects. These focus groups indicated that CMC meetings could not create the same amount of trust as FTF sessions, regardless of how many CMC meetings they had. Thus, under any circumstance, trust is best formed and maintained through the use of FTF sessions rather than CMC interactions exclusively. Furthermore, as trust was developed through their FTF interactions, they felt more comfortable exchanging new ideas, even when their ideas might be rejected, which increased collaboration and had a positive impact on overall performance. Hence, FTF interactions early on in a group's development, when brainstorming often takes place, resulted not only in more effective trust building, they led to a greater inclusion of and interaction between all group members.

In the middle sections of group project processes, forming the bottom of the "U-shaped" curve, our students found CMC interactions to be more useful and effective. In spite of positive experiences and preferences regarding the benefits of FTF interactions, the students found CMC meetings to be more efficient since virtual meetings were more task-oriented; they had less off-task interaction; questions were more directly answered; and, no additional travel time was required. Once the group assignment definition had been agreed to by the group members and each person's role had been determined, CMC interaction was the preferred method of communicating with group members, especially those who favored less personal contact with others or were more introverted. For people who choose not to have to interact with someone with whom they do not trust, CMC provides an option that allows people to work with others when such interaction might not happen otherwise. Participants suggested that CMC was an excellent way of dividing responsibilities and letting other group members know what work was being accomplished to avoid redundancy. In addition, CMC provides a record of what has been discussed and accomplished, which is often difficult to maintain in FTF sessions unless complete minutes are taken and distributed.

And shaping the third portion of this "U-shaped" curve (near the end of a group project), the two focus groups strongly agreed that the value of FTF meetings was greater compared to CMC interaction. In fact, they indicated that the use of CMC could often be used as an excuse to be less prepared, even unprepared, for group presentations and final group papers. FTF meetings resulted in greater accountability and ultimately in higher performance. Both groups noted how people could fake their output while meeting virtually but could not hide what they did not produce when physically meeting with their group members. In addition, participants strongly suggested that FTF meetings provided much more complete information as body language, innuendo and nuance were

all included in the communication. Focus group members indicated how this additional skill development was a value-added for a business degree.

Our focus groups indicated that FTF interaction was much more satisfying, and this satisfaction had further positive effects in other areas. For example, satisfaction had the most influence in determining whether they were willing to work with a person in future group project situations. Since satisfaction also helped determine the degree of openness that developed in a group, collaboration and overall performance were also positively impacted.

## **CONCLUSIONS AND IMPLICATIONS**

Our study recognizes both types of communications can enhance performance in group project settings, though our findings suggest that the most effective use follows a "U-shaped" curve - that is, more FTF at the beginning and end of a group project with an increased usage of CMC in the middle after trust is developed. Both focus groups were strongly in support of the role of FTF meetings early in any group project assignment. They disagreed with the findings of Wilson et al. (2006) that CMC interaction can create a level of trust consistent with the trust created in FTF teams. Without this personal interaction, trust did not, perhaps could not, develop sufficiently to lead to higher team performance. Yet CMC played a positive and necessary role in accomplishing important group tasks during project assignments. Project completion, however, was best done through FTF interactions, to maintain accountability and a higher level of team member performance. This "U-shaped" curve not only reflects experiences of these participants in enhancing personal and group output for group projects, it also represents their preferences in using FTF and CMC meetings.

Faculty, therefore, might want to consider creating FTF opportunities for students, perhaps including team building exercises in the early stages of the course (Grzeda et al., 2008; Hunsaker et al., 2011; Lee et al., 2016). These additions would allow students to get to know each other and to develop trust to enhance group processes and overall productivity. Students would also have the opportunity to determine what type, how much and when CMC interaction would take place. Finally, faculty might want to consider how to provide class time near the end of the term for students to take advantage of the greater accountability gained through FTF meetings. Project outputs then have a greater chance of higher quality. While faculty often consider the research on the use of technology in their courses, they might want to consider the results of this research in assigning group activities in their classes as well.

We draw attention to some limitations of the current study that can be leveraged to inform future research. Although we tried to enhance the generalizability of our findings by interviewing two focus groups which had relatively different levels of motivation, commitment, and performance, they still both came from the same university. In addition, the focus group moderator was a faculty member who had, and possibly could later have, some of these participants in the class, which might skew their responses. There may be limitations based on the location and size of the university and we recognize that most courses taken by students in both of the focus groups were on-ground or blended courses and, therefore, provided students with the choice of how to complete group projects. Furthermore, this university is mainly a commuter school. And while we expected

there to be a higher preference for CMC to make their group interactions more efficient and less burdensome, this was not the case for these students. It is an area that should be tested further.

Additional research is needed to determine when CMC interaction helps people who might otherwise not contribute directly to group discussions, as students suggested when someone might not trust another person or are too inhibited to contribute to ongoing discussions. In addition, this may be the case when English is a second language. Moreover, CMC interaction may help when providing a written record of a meeting is more effective than trying to replicate an FTF meeting. This might reflect a situation where students have different learning styles or come from different backgrounds (del Carmen Triana, Kirkman, and Wagstaff [2012], where they discuss ethnic differences not interfering with interactions in CMC meetings). Finally, this study included only undergraduate students and it is possible that graduate student experiences, particularly given different life circumstances, could result in different outcomes. We also believe replication is necessary to provide more compelling information for faculty members to make the use of group project assignments more effective.

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