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ABSTRACT

Purpose: The literature prescribing determinants of innovation success address strategic leadership, competitive intelligence, management of technology, and specific characteristics of the company’s innovation process. Organization absorptive capacity is considered as possible moderator for these determinants of innovation success. Unfortunately researchers in these areas mostly ignored each other’s work thus proposing models relatively narrow in scope. This study tests these constructs as a set of determinants of innovation success and the possible moderating effect of organization absorptive capacity.

Design/methodology/approach: A field test using a mailed questionnaire for data collection has been used to test the proposed model. To eliminate possible multicollinearity among independent variables, a multivariate regression analysis was used.

Findings: The results provide clear evidence about the importance of organization absorptive capacity as a moderator between the independent variables and company success in business innovation, except the company’s strategic leadership as defined here is equally important to low and high absorptive capacity organizations for successfully implementing business innovations.

Research limitation/implications: Despite the relatively broad scope of the proposed model, other factors may also be important and should be included in future studies.

Practical implications: The detailed items used for measuring the main constructs provide further insights for managers developing these areas within their organizations.

Originality/value: While the study is grounded in the literature of what until now have been four separate areas of knowledge, it proposed and tested an integrated model for these areas moderated by organization’s absorptive capacity.
INTRODUCTION

The business literature has paid a great deal of attention to the relatively new concept of organization absorptive capacity and its importance as a requirement for companies to manage and prosper in a business environment heavily dependent on innovation (Noblet et al., 2011; Popatzoon and Ebers, 2011; Kolbibacher et al., 2013). While many organizations have derived substantial benefits from business innovation, success implementing the required changes is far from assured with many organizations also reporting disappointing results due to missed objectives, unexpectedly high costs, and turmoil caused by the changes. Besides the continuous need for organizations re-invent themselves and for developing new products and services (O’Sullivan, 2003), many companies have adopted quality improvement methodologies which call for a continuous effort to improve products, processes, and systems to better satisfy customer needs. The required changes may also call for employee empowerment in decision making, a team approach to identify, prioritize, and implement improvement, including changes to organization values and culture. Although there has been a significant amount of success with TQM, managers and practitioners have realized that in many cases there is need for more dramatic improvements in productivity, competitiveness, and profitability. This can be accomplished by major paradigm shifts which focus on value-added activities as well as other underpinnings for successfully implementing the concept of Business Process Reengineering (BPR) (Guimaraes and Paranjape, 2003; Caccia-Bava et al., 2005). Regardless of the change methodology being employed, the factors important to innovation success or failure are many, but most authors would agree that the change process needs to bear certain characteristics. Many researchers have looked to improvements in strategic leadership as critical to developing an organization environment conducive to innovation (Flatten et al., 2015; Lee et al., 2014; Sun and Anderson, 2001; Waldman et al., 2001; Williams, 2004). To help define and prioritize important problems and opportunities to the organization, many have proposed Competitive Intelligence (CI) programs as important to company success (Elbashir et al., 2011; Moilanen et al., 2014; Vedder and Guynes, 2002; duToit, 2003; Tarraf and Molf, 2006). Further, effective Management of Technology (MOT) is thought to be a critical requirement for successfully implementing most modern business change (Lee et al., 2014; Wang et al., 2014; Singh et al., 2015; Beattie and Fleck, 2005). While these propositions are exceedingly important, the existing literature contains little empirical evidence supporting them. As called for in the study by Guimaraes and Armstrong (1998a), while these constructs are well established among scattered groups of academic researchers and practitioners, much remains to be done to test these propositions in practice. Some of these constructs have been addressed by a narrow group of academic researchers in their area of specialization and almost completely ignored by others studying the management of innovation, despite their combined importance among practicing managers. For example, with regard to absorptive capacity, more attention to the construct’s importance for innovation success would certainly be warranted. It may indeed be important to enhance company innovation and competitiveness, the existing literature on each area is not being shared by researchers in the other areas. That has led until now to the study of models relatively narrow in scope and primarily focused on the particular research area. This study proposes an integrated model which tests these constructs as a set of determinants of innovation success and the possible moderating effect of industry clockspeed. To accomplish that, this study uses a broad definition of business innovation, without specifically measuring details of the innovation process such as if partners were involved, if it created new markets or new sources of supplies, etc.

THEORETICAL BACKGROUND AND PROPOSED HYPOTHESES

Dependent Variable—Business Innovation Success

Business innovation has been studied from a very wide variety of perspectives. Enkel et al. (2009), among many others, have explored the importance of innovation approaches which emphasize the inclusion of company outsiders. Johannessen et al. (2001) provided some guidelines for categorizing types of innovations in terms of what is being changed, how new, and how to whom. While it is important to understand the great variety of perspectives and factors affecting business innovation, this study has a very specific practical focus: the literature prescribing important determinants of business innovation success is grouped into four main areas encompassing strategic leadership, competitive intelligence, management of technology, and specific characteristics of the company’s innovation process. Further, organization absorptive capacity has been considered to be a possible moderator for these determinants of innovation success (Elbashir et al., 2011; Moilanen et al., 2014; Vedder and Guynes, 2002). Competitive intelligence may indeed be important to enhance company innovation and competitiveness. This study proposes an integrated model which tests these constructs as a set of determinants of innovation success and the possible moderating effect of industry clockspeed. To accomplish that, this study uses a broad definition of business innovation, without specifically measuring details of the innovation process such as if partners were involved, if it created new markets or new sources of supplies, etc.

Independent Variable—Competitive Intelligence

To keep in touch with what is going on in the markets, managers are increasingly recognizing the importance of competitive intelligence and knowledge management as a key asset (Elbashir et al., 2011; Moilanen et al., 2014; Vedder and Guynes, 2002; Singh et al., 2015; Beattie and Fleck, 2005). With the increase in business competition, company survival and success is now determined by its rate of learning. If it is faster than external changes, the organization will experience long term success (Darling, 1996). Ironically, even though as much as 68% of U.S. companies have an organized approach to providing information to decision makers (Westervelt, 1996), historically, according to Ettorre (1995), less than 20% of American corporations managed the CI process well, and effectively integrate the information into their strategic plans. More recent statistics on the subject are not available but no major differences are expected. The antecedents and consequences of competitive intelligence dissemination have been studied by Malitz and Kohli (1996). Competitor Analysis (CA) was proposed by Ghoshal and Westney (1990), and other approaches useful for companies to collect information from competitors were addressed by Heil and Robertson (1991). The importance of organization intelligence to financial performance has also been demonstrated. Historically, companies with well-established CI programs on the average showed earnings per share of $1.24, compared to those without CI programs which lost 7 cents (King, 1997). The literature contains many examples of benefits that can be derived from CI (McCune, 1996; Sawka, 1996; Westervelt, 1996; duToit, 2003; Editors, 2004) and improved overall company performance (Babbar and Rai, 1993; Guimaraes and Armstrong, 1998a; Davison, 2001), two essential company goals that can be brought about with effective application of competitive intelligence. More specifically, effective CI can help companies solve new problems and problems that will enable proactive strategies (Elis, 1993; Westervelt, 1996); providing the basis for continuous improvement (Babbar and Rai, 1993); shedding light on the potential problems that could lead to business failure (Darling, 1996); improving speed to markets and supporting rapid globalization (Baatza, 1994; Ettorre, 1995); improving the likelihood of company survival (Westervelt, 1996); increasing business value and quality (Darling, 1994); providing better customer assessment (Darling, 1996); and aiding in the understanding of external influences (Sawka, 1996). Benefits such as these provide the basis for firms to better understand the potential impact of the proposed innovations and the means by which they can be infused into the company’s fabric. Based on the above discussion, we propose hypothesis H1: Company CI effectiveness is directly related to effectiveness implementing business innovation.
**Independent Variable—Strategic Leadership**

There is a substantial body of knowledge proposing the importance of effective leadership as an ingredient to successful organizational performance (Flatten et al., 2015; Lee et al., 2014; Sun and Anderson, 2011; Waldman et al., 2008). There are many types of leadership (i.e. formal/informal, based on specific skills, social status, etc.) arising from the circumstances in which leaders/followers find themselves. For the purpose of this study the relevant construct is company strategic leadership (Garcia-Morales et al., 2012). Transactional strategic leadership has been studied widely (Garcia-Morales et al., 2012; Pawar and Eastman, 1997) as one operational within an existing organizational system or culture instead of trying to change it. It attempts to satisfy the current needs of followers by focusing on exchanges and contingent reward behavior. It pays close attention to exceptions or irregularities and takes action to make corrections (Burns, 1978; Bass, 1985). Conceptually similar to the cultural maintenance form of leadership described by Trice and Beyer (1993), transactional leadership acts to strengthen existing organization processes, structures, strategies, and culture.

The second form of strategic leadership is transformational or change leadership (Garcia-Morales et al., 2012; Pawar and Eastman, 1997). According to Waldman et al. (2001) the leader articulates “a vision and sense of mission, showing determination, and communicating high performance expectations” (p.15). The followers rely on confidence in the leader and strong admiration or respect. Also they identify with the leader’s vision and with the organization itself, creating a high level of collective cohesion through leader’s expressions of confidence in the followers’ ability to attain the vision. In turn, a heightened sense of self-efficacy (Podsakoff et al., 1996) has proposed Expert Systems as viable implementation vehicles for business change because they are effective in capturing and distributing knowledge and knowledge processing capability across an organization. The list of technologies available to support the necessary business innovations is extensive, but the business innovations requiring technology, without effective MOT the innovation implementation processes would be severely hindered and in many cases rendered impossible. Based on the above discussion, we propose hypothesis

**H2:** Strategic leadership is directly related to effectiveness implementing business innovation.

**Independent Variable—Management of Technology (MOT) for Business Innovation**

As business competitiveness increases, many business organizations have used technology for redesigning business processes, provide new products and services, and improve the organization work environment. Many authors have proposed the importance of a wide variety of technologies to support business innovation (Lee et al., 2014; Wang et al., 2014; Block, 2014; Beattie and Fleck, 2005; Khalili and Ezzat, 2005; Li-Hua and Khalil, 2006). Computer Telephony Integration has been touted as a powerful tool to improve the relationship with customers (McCarthy, 1996). The effects of computer technology on organization design, intelligence and decision making have long been of interest to researchers (Huber, 1990). The use of computers for data mining and warehousing is seen as essential for decision support (Anonymous, 1995). Freidenberg and Rice (1994) and Guimaraes et al., (1997) have proposed Expert Systems as viable implementation vehicles for business change because they are effective in capturing and distributing knowledge and knowledge processing capability across an organization. The list of technologies available to support the necessary business innovations is extensive, but the business innovations requiring technology, without effective MOT the innovation implementation processes would be severely hindered and in many cases rendered impossible. Based on the above discussion, we propose hypothesis

**H3:** MOT effectiveness is directly related to effectiveness implementing business innovation.

**Independent Variable—Important Characteristics of the Innovation Process**

A survey of the literature on business innovation management reveals several pre-requisites for successfully implementing business innovation such as conformity to company objectives, employee and department participation in the innovation process, customer input, reasonably balancing risk taking with cost benefit analysis, monitoring progress, and communication regarding the innovation process. In other words, how innovation is implemented is an important determinant of success. Specifically, as proposed by Guimaraes and Armstrong (1998), and subsequently assessed in practice (Garcia-Morales and Paranjape, 2013; Caccia-Bava et al., 2005), the important characteristics of the innovation process enumerated above are expected to influence the company’s ability to successfully change its products, processes, and its organizational structure and culture. Thus, we propose hypotheses

**H4:** The extent to which the innovation process bears the desirable characteristics will be directly related to company effectiveness implementing business innovation.

**Moderating Variable—Absorptive capacity**

Absorptive capacity has been originally defined as “the ability of a firm to recognize the value of new, external information, assimilate it, and apply it to commercial ends” (Cohen and Levinthal, 1990, p.128). In the realm of management research, absorptive capacity encompasses a wide range of theories including organization learning (Lane et al., 2000), innovation (Tsai, 2001), a knowledge-based view of the firm (Zhao and Anand, 2009) and organization’s dynamic capabilities (Zahra and George, 2002). According to the dynamic capabilities theory, firms need to adjust their resource base constantly to cope with the changing environment, thereby generating a competitive advantage (Teo et al., 1997). As an organization’s dynamic capability, absorptive capacity is embedded in organizational processes considered important enablers for successful organizational change and growth (Zott, 2003). Teo et al. (2007) have emphasized the importance of strategic leadership in developing absorptive capacity and providing the necessary resources for this critical component of a company’s managerial infrastructure. In this study, we view absorptive capacity as such, while providing the conduit for information from strategic leadership, competitive intelligence, management of technology, and the individual change processes themselves to flow through the entire organization affecting the decision making process of managers and lower workers alike.

Cohen and Levinthal (1990) viewed absorptive capacity as a three-dimensional construct composed of identifying, assimilating, and exploiting external knowledge. Since then it has undergone several modifications and extensions (Lane et al., 2006; Lewin et al., 2011; Todorova and Durisin, 2007; Flatten et al., 2011). Zahra and George (2002) proposed it as a four-dimensional construct which has been validated by several studies (Brett et al., 2011; Flatten et al., 2011; Jansen et al., 2005). The four dimensions or capabilities are: 1) Acquisition which refers to the identification and gathering of external knowledge potentially relevant to the firm. 2) Assimilation of the knowledge that has previously been acquired through its analysis, understanding, and interpretation. 3) Transformation which focuses on combining prior existing knowledge with newly acquired knowledge to update underlying processes. 4) Exploitation focused on fostering the commercial application of the new knowledge.

Zahra and George (2002) noted that the first two dimensions (acquisition and assimilation) are capabilities exploring potentially relevant knowledge, thus they are jointly called potential absorptive capacity, expressing a firm’s ability to identify and gather external knowledge. The last two (transformation and exploitation) are capabilities exploiting relevant knowledge and realizing commercial gains from it, thus jointly they are called realized absorptive capacity, expressing a firm’s ability to employ and leverage absorbed knowledge converting such knowledge into new or improved products and processes. (Flat ten et al., 2011).

In this study we surmise that even though the infra-structure (equipment, materials, training, etc.) enabling potential absorptive capacity and realized absorptive capacity can be developed and employed separately, they must exist simultaneously in order to achieve the beneficial organizational results (Zahra and George, 2002). Indeed, an extension of the theoretical absorptive capacity concept is the work of Todorova and Durisin (2007) which propose a three-dimensional absorptive capacity concept is the work of Todorova and Durisin (2007) which assume feedback loops between the potential and realized absorptive capacity concepts and propose that firms with higher levels of absorptive capacity will have an advantage identifying, gathering, assimilating, and exploiting further relevant knowledge in the future. Therefore, we should expect that as a whole the absorptive capacity construct would act as a conduit for knowledge in an organization. If so, it should be viewed as an important component of the company innovation management infrastructure, magnifying the four major success factors proposed earlier (the independent variables) as determinants of organizational performance. Indeed, organizational absorptive capacity has been considered by some to be a possible moderator for various determinants of innovation success (Elbansheh et al., 2011; Moilanen et al., 2014). Based on the above discussion, we propose the following hypotheses:

**H1b:** High organization absorptive capacity heightens the relationship between competitive intelligence and innovation success.
Data Collection Procedure
This field test used a mailed questionnaire to collect data from the Internal Auditor Director (IA) of each company. IAs were chosen as respondents because, from a corporate perspective, they are most aware of the problems and activities throughout the company. Furthermore, the group is relatively homogeneous, a characteristic that strengthens internal validity of the data collection instrument used in the study. We felt that a survey of top managers who are directly responsible for strategic leadership, or of managers directly involved with specific projects implementing organizational innovations, would have greater likelihood of bias. After some wording of a few questions following the input from a small pilot test involving four IAs, the questionnaire was distributed by mail to the IAs of 1000 organizations randomly selected from a list of approximately 4000 members of the Internal Auditors Association. The sample represents a wide variety of organizational settings, i.e., small as well as large companies, from several industry sectors. Participation was voluntary, and the cover letter assured confidentiality of the responses and that only summary information from the participants would be published. The survey was accompanied by a published report from a previous study on the topic (as a courtesy to prospective respondents) and by a postage-paid envelope addressed for direct return to the researchers.

Sample Description
Through the procedure just described, 1000 IAs were selected to participate in the study and 294 returned the questionnaire in time for data analysis. Nine questionnaires were thrown out due to missing data. The remaining 285 usable questionnaires provide a response rate which is acceptable for studies of this type (Teo and King, 1996) and consistent with past experience with mailed surveys (George and Barkdale, 1974; Igbaria et al., 1991). Nevertheless, care was taken to assess the representativeness of the sample. Chi-square tests were used with a sample of non-respondents to check for the possibility of non-response bias. The results of this test support the conclusion that based on company size (gross revenues) and industry sectors the companies in the sample are similar to those in the target sample. The actual sample versus the target sample percentage compositions in terms of primary industry sectors and company gross revenues are presented in Tables 1 and 2, respectively.

Variable Measurement
Innovation Success or company effectiveness implementing business innovation represents the company’s ability to alter its business practices in the desired manner. As previously used by Guimaraes and Armstrong (1998a) and Guimaraes et al. (1999), this was measured by the respondents rating the effectiveness of the firm in changing four areas to address strategic problems and opportunities: products, processes, organization structure and organization culture. This was done in comparison with the closest competing organizations and using a seven-point Likert-type scale ranging from 1 extremely lower than average, 2 much lower, 3 somewhat lower, 4 average, 5 somewhat higher than average, 6 much higher, and 7 extremely higher). The ratings for the four areas were averaged to produce a single measure for effectiveness in implementing business innovation.

Effectiveness in Competitive Intelligence was measured, as proposed by Guimaraes and Armstrong (1998a) and used by Guimaraes and Paranjape (2013), by asking the respondent to rate the effectiveness of the firm in identifying strategic business opportunities and problems in six specific areas: traditional industry competitors, emerging competitors, traditional customer needs and wants, non-traditional customer needs and wants, relationships with business partners, and product or service development. Each item was rated on the same seven-point scale as above. The overall measure of CI effectiveness was the average rating for the six areas.

H2b: High organization absorptive capacity heightens the relationship between effective MOT and innovation success.

H3b: High organization absorptive capacity heightens the relationship between effective leadership and innovation success.

H4b: High organization absorptive capacity heightens the relationship between which the innovation process bears the desirable characteristics and innovation success.

STUDY METHODOLOGY
This section provides an overview of the field-test data collection procedures, a brief description of the sample demographics, a detailed discussion of how the variables were measured, and the data analysis procedures.

Table 1
<table>
<thead>
<tr>
<th>Industry Sectors</th>
<th>No. of Companies</th>
<th>Actual Sample (n=285)</th>
<th>Target Sample (n=1000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturing</td>
<td>93</td>
<td>32.6%</td>
<td>34.3%</td>
</tr>
<tr>
<td>Financial Services</td>
<td>24</td>
<td>8.4%</td>
<td>8.1%</td>
</tr>
<tr>
<td>Banking</td>
<td>21</td>
<td>7.4%</td>
<td>6.8%</td>
</tr>
<tr>
<td>Other</td>
<td>21</td>
<td>7.4%</td>
<td>6.6%</td>
</tr>
<tr>
<td>Health Care</td>
<td>18</td>
<td>6.3%</td>
<td>5.1%</td>
</tr>
<tr>
<td>Merchandising</td>
<td>16</td>
<td>5.6%</td>
<td>6.5%</td>
</tr>
<tr>
<td>Transportation</td>
<td>15</td>
<td>5.3%</td>
<td>7.2%</td>
</tr>
<tr>
<td>Utilities</td>
<td>15</td>
<td>5.3%</td>
<td>4.7%</td>
</tr>
<tr>
<td>Communications</td>
<td>13</td>
<td>4.6%</td>
<td>4.9%</td>
</tr>
<tr>
<td>Wholesalers</td>
<td>12</td>
<td>4.2%</td>
<td>3.2%</td>
</tr>
<tr>
<td>Insurance</td>
<td>10</td>
<td>3.5%</td>
<td>5.1%</td>
</tr>
<tr>
<td>Mining</td>
<td>8</td>
<td>2.7%</td>
<td>2.0%</td>
</tr>
<tr>
<td>Total</td>
<td>285</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Table 2
<table>
<thead>
<tr>
<th>Gross Revenues</th>
<th>No. of Companies</th>
<th>Actual Sample (n=285)</th>
<th>Target Sample (n=1000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than $100M</td>
<td>0</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>$101M-$500M</td>
<td>4</td>
<td>1.4%</td>
<td>1.9%</td>
</tr>
<tr>
<td>$501M-$500M</td>
<td>8</td>
<td>2.8%</td>
<td>3.2%</td>
</tr>
<tr>
<td>$501M-$700M</td>
<td>21</td>
<td>7.4%</td>
<td>8.5%</td>
</tr>
<tr>
<td>$701M-$1BB</td>
<td>31</td>
<td>10.9%</td>
<td>9.7%</td>
</tr>
<tr>
<td>$1BB-$2BB</td>
<td>43</td>
<td>15.1%</td>
<td>13.3%</td>
</tr>
<tr>
<td>$2BB-$5BB</td>
<td>49</td>
<td>17.2%</td>
<td>16.8%</td>
</tr>
<tr>
<td>$5BB-$10BB</td>
<td>72</td>
<td>25.2%</td>
<td>28.0%</td>
</tr>
<tr>
<td>Over $10BB</td>
<td>57</td>
<td>20.0%</td>
<td>18.6%</td>
</tr>
<tr>
<td>Total</td>
<td>285</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>
Effectiveness in Strategic Leadership represents the ability of the top management team to provide leadership when the organizational environment requires innovation. Environments perceived as highly uncertain (requiring major innovations) tend to be perceived as risky, where wrong decisions could be costly. Such environments probably generate a high degree of stress. charismatic leadership would tend to reduce stress and generate confidence, and perhaps show how uncertainty can be turned into a vision of opportunity and success (Flatten et al., 2015; Lee et al., 2014; Sun and Anderson, 2011; Bass, 1985). While charismatic leadership may be more relevant to situations where organization innovation is of major importance, both transactional and transformational (charismatic) leadership are potentially important at the strategic level. Further, Bass (1985) viewed transactional and charismatic leadership as being somewhat complementary in that both could be displayed by the same individual leader. The same items used by Waldman et al. (2001) were used to measure the two types of strategic leadership. It was assessed by asking the respondents to rate the extent to which their top managers in general exhibit the particular behavior when compared to managers of main competing organizations. Transactional leadership: 1. Takes actions if mistakes are made. 2. Points out what people will receive if they do what needs to be done. 3. Reinforces the link between good performance and obtaining rewards. 4. Focusses attention on irregularities, exceptions, or deviations from what is expected. 5. Rewards good work. Charismatic leadership: 1. Shows determination when accomplishing goals. 2. I have complete confidence in them. 3. Makes people feel good to be around them. 4. Communicates high performance expectations. 5. Generates respect. 6. Communicates a sense of mission. 7. Provides a vision of what lies ahead.

Characteristics of the Innovation Process is defined as the degree to which companies promote “desirable” innovation process activities. As previously used by Guiamaraes and Panarjape (2013) and Panarjape et al. (2009), this was measured by asking the respondents to rate the importance or focus that the company places on ten areas of the innovation process characteristics. These consisted of: all significant innovations are considered important, customers input is considered important, business partners input is considered important, ability of the top management team to provide leadership when the organizational environment requires innovation, environments perceived as highly uncertain (requiring major innovations) tend to be perceived as risky, where wrong decisions could be costly. Such environments probably generate a high degree of stress. charismatic leadership would tend to reduce stress and generate confidence, and perhaps show how uncertainty can be turned into a vision of opportunity and success (Flatten et al., 2015; Lee et al., 2014; Sun and Anderson, 2011; Bass, 1985). While charismatic leadership may be more relevant to situations where organization innovation is of major importance, both transactional and transformational (charismatic) leadership are potentially important at the strategic level. Further, Bass (1985) viewed transactional and charismatic leadership as being somewhat complementary in that both could be displayed by the same individual leader. The same items used by Waldman et al. (2001) were used to measure the two types of strategic leadership. It was assessed by asking the respondents to rate the extent to which their top managers in general exhibit the particular behavior when compared to managers of main competing organizations. Transactional leadership: 1. Takes actions if mistakes are made. 2. Points out what people will receive if they do what needs to be done. 3. Reinforces the link between good performance and obtaining rewards. 4. Focusses attention on irregularities, exceptions, or deviations from what is expected. 5. Rewards good work. Charismatic leadership: 1. Shows determination when accomplishing goals. 2. I have complete confidence in them. 3. Makes people feel good to be around them. 4. Communicates high performance expectations. 5. Generates respect. 6. Communicates a sense of mission. 7. Provides a vision of what lies ahead.

Construct Validity

Several precautions were taken to ensure the validity of the measures used. Many of the recommendations by Carmines and Zeller (1979) were followed. To ensure content validity, a thorough review of the relevant literature was undertaken to understand the important aspects of each major variable and its components, and not neglect important dimensions of any variable. To further reduce the possibility of any non-random error, the main source of validity was the internal consistency reliability coefficient of 0.5 or higher is acceptable. Van de Ven and Ferry (1980) posited that in this type of research, even a value of 0.4 or higher will be sufficient. In our case, the reliability coefficients of all the factors were higher than 0.70, which was proposed by Peterson (1994) as useful for more rigorous studies. As Table 3 indicates, the internal consistency reliability coefficients (Cronbach’s alpha) for the scales used in this study are all well above the level of 0.80 acceptable for exploratory studies of this type (Nunnally, 1978).

Table 3
**TABLE 3**

**CORRELATIONS BETWEEN MAJOR VARIABLES**

<table>
<thead>
<tr>
<th>1. Innovation Success</th>
<th>Mean</th>
<th>Std Dev</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Competitive Intelligence</td>
<td>3.34</td>
<td>.211</td>
<td>.58**</td>
<td>.86</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Transactional Leadership</td>
<td>4.02</td>
<td>1.10</td>
<td>.32**</td>
<td>NS</td>
<td>.82</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Charismatic Leadership</td>
<td>3.15</td>
<td>1.99</td>
<td>.38**</td>
<td>.40**</td>
<td>.33**</td>
<td>.85</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Management of Technology</td>
<td>4.26</td>
<td>1.16</td>
<td>.31**</td>
<td>NS</td>
<td>.26**</td>
<td>.28**</td>
<td>.91</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Innovation Process Features</td>
<td>3.73</td>
<td>1.46</td>
<td>.44**</td>
<td>.33**</td>
<td>.25**</td>
<td>.35**</td>
<td>.19**</td>
<td>.93</td>
<td></td>
</tr>
<tr>
<td>7. Absorptive Capacity</td>
<td>3.55</td>
<td>1.29</td>
<td>.32**</td>
<td>.21**</td>
<td>.13**</td>
<td>.34**</td>
<td>.46**</td>
<td>.41**</td>
<td>.96</td>
</tr>
</tbody>
</table>

Numbers in parentheses are Cronbach’s alpha reliability coefficients. NS means not significant. * means p<.05, ** means p<.01

**TABLE 4**

**RESULTS OF MULTIPLE REGRESSION USING STEPWISE METHOD**

(Independent Variable: Innovation Success)

<table>
<thead>
<tr>
<th>Independent Variables*</th>
<th>Incremental R²</th>
<th>Significance Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Competitive Intelligence</td>
<td>.34</td>
<td>.00</td>
</tr>
<tr>
<td>2. Innovation Process Features</td>
<td>.16</td>
<td>.08</td>
</tr>
<tr>
<td>3. Strategic Leadership</td>
<td>.09</td>
<td>.03</td>
</tr>
<tr>
<td>4. Management of Technology</td>
<td>.05</td>
<td>.04</td>
</tr>
<tr>
<td>Total Variance Explained</td>
<td>.64</td>
<td></td>
</tr>
</tbody>
</table>

* In the sequence in which they entered the regression equation.

**TABLE 5**

**MODERATED MULTIPLE REGRESSION RESULTS**

(Dependent Variable: COMPANY Innovation Success)

<table>
<thead>
<tr>
<th>Independent Variables and Moderator: Absorptive Capacity</th>
<th>Incremental R²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Competitive Intelligence</td>
<td>.34**</td>
</tr>
<tr>
<td>+ Absorptive capacity</td>
<td>.16**</td>
</tr>
<tr>
<td>+ Absorptive capacity x Competitive Intelligence</td>
<td>.08**</td>
</tr>
<tr>
<td>Total R²</td>
<td>.58**</td>
</tr>
<tr>
<td>+ Innovation Process Features</td>
<td>.19**</td>
</tr>
<tr>
<td>+ Absorptive capacity</td>
<td>.16**</td>
</tr>
<tr>
<td>+ Absorptive capacity x Change Process Features</td>
<td>.06**</td>
</tr>
<tr>
<td>Total R²</td>
<td>.41**</td>
</tr>
<tr>
<td>+ Strategic Leadership</td>
<td>.12**</td>
</tr>
<tr>
<td>+ Absorptive capacity</td>
<td>.06**</td>
</tr>
<tr>
<td>+ Absorptive capacity x Strategic Leadership</td>
<td>.01NS</td>
</tr>
<tr>
<td>Total R²</td>
<td>.19NS</td>
</tr>
<tr>
<td>+ Management of Technology</td>
<td>.09**</td>
</tr>
<tr>
<td>+ Absorptive capacity</td>
<td>.08**</td>
</tr>
<tr>
<td>+ Absorptive capacity x Management of Tech.</td>
<td>.06**</td>
</tr>
<tr>
<td>Total R²</td>
<td>.23**</td>
</tr>
</tbody>
</table>

* p <= .05 ** p <= .01 NS=Not Significant

**TABLE 6**

**MODERATED MODEL SLOPE COEFFICIENTS FOR INDEPENDENT VARIABLES ON INNOVATION SUCCESS**

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Moderator Variable</th>
<th>Slope***</th>
<th>Adjusted R²</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Low</td>
<td>High</td>
</tr>
<tr>
<td>Competitive Intelligence</td>
<td>Ab Capacity</td>
<td>.23**</td>
<td>.34**</td>
</tr>
<tr>
<td>Innovation Process Features</td>
<td>Ab Capacity</td>
<td>.27**</td>
<td>.44**</td>
</tr>
<tr>
<td>Strategic Leadership</td>
<td>Ab Capacity</td>
<td>.36**</td>
<td>.48**</td>
</tr>
<tr>
<td>Management of Technology</td>
<td>Ab Capacity</td>
<td>.25**</td>
<td>.49**</td>
</tr>
</tbody>
</table>

* p <= .05 ** p <= .01

*** Two separate equations were obtained, one for the low (below the median) moderator group, the other for the high (above the median) moderator group. Slope coefficients (non-standardized beta weights) for low and high moderator groups are significantly (.01 or lower) different for Company Intelligence, Management of Technology, and Innovation Process Features.

**Data Analysis Procedures**

The average and standard deviation for each item in the questionnaire were computed and presented in Table 3. To detect any possible difference between the two strategic leadership types as determinants of business innovation success, they were processed separately in this analysis. Because this study is focused on assessing the moderating impact of organiza-tional absorptive capacity as a whole, its components were not considered separately. A second order factor analysis indicated that the four components measuring absorptive capacity can be combined into a single factor which has been used in this study.

Because of the possibility of collinearity among the independent variables, a stepwise multivariate regression analysis was conducted to assess the extent to which each independent variable incrementally contributes to explaining the variance in the dependent variable. In this case the two leadership types were combined since they both were found to be significant determinants of business innovation success and such combination was deemed valid by a second order factor analysis. The multivariate regression analysis results are presented in Table 4.

Moderated multiple regression analysis using the hierar-chical technique (Cohen and Cohen, 1983; James and Brett, 1984; Pettet et al., 1984; Hair et al., 1995) was performed to assess the moderating effect of company absorptive capacity on the relationships between the four independent variables and firm’s innovation effectiveness or success. The results are presented in tables 5 and 6.

This data analysis technique has been recommended as preferable to subgroup analysis for testing moderator effects because it makes more complete use of the data and its interaction effect (with the independent variables) on
The dependent variable (Zadeck, 1971; Peters and Champsou, 1979; Peters et al., 1984). First, innovation success was regressed on each of the four independent variables. The moderating variable (absorptive capacity) was added to the regression equation, and the increment in R² (and the level of significance associated with the change) were computed. Once the significant relationships were identified, the beta coefficients were computed to assess the direction of the relationship.

The increment in R² rather than the magnitude of the correlation coefficient was used to determine the relative importance of each independent variable in explaining innovation success (Arnold, 1982, Cohen and Cohen, 1983). The interaction of the moderating variable and each of the factors was added, and the increment in R² (and associated significance level) were determined. Thus, this procedure yields the most conservative estimate possible of moderating effects as it “assigns to the additive effects all variance that cannot be unequivocally attributed to the interaction effects” (LaRocco et al., 1980). The interaction is denoted in Table 5 by (independent variable x company absorptive capacity).

To avoid the problems associated with subgroup correlation analysis and to complete the moderator model analyses (Peters and Champsou, 1979; Arnold, 1982; Peters et al., 1984), slope coefficients (non-standardized beta coefficients) were used to examine the direction of the significant interactions. Furthermore, to determine whether slope coefficients vary as a function of the interaction, the moderator variable was split into low (below the median) and high (above the median) groups. The statistical significance level of the differences between respective slope estimates obtained for the two groups (low and high) were tested by applying the formula proposed by Arnold (1982).

The items comprising each major variable were subjected to a principal component analysis followed by a varimax (orthogonal) rotation of the factor loadings and factor scores. To be included in a given factor the item is expected to load unambiguously (i.e., with one loading of .85 and no other loadings greater than .84), as suggested by Magal et al. (1988). As suggested by several researchers (e.g., Nunnally, 1978), the minimum eigenvalue for which a factor is to be retained was specified as 1.0. This procedure produced multifactor solutions for the main variables. Company absorptive capacity items loaded unambiguously into the four factors as expected. A second order factor analysis of these four factors produced a single factor representing overall company absorptive capacity which is used for this study. Similarly, as a requirement to compute reliability coefficients for each multi-factor construct measure, second order factor analyses were done on the extracted factors to ensure that they could be treated as one construct. In all cases, the analyses showed that the extracted factors can be combined (load unambiguously) into single main factors corresponding to the main variables in the model tested in this study. Based on the stated objectives of this study, further analyses shown in Tables 4, 5, and 6 used the combined sub-factors for all major variables.

RESULTS

Table 3 lists the means and standard deviations for the main research variables. As a group, in comparison with their main competitors, the companies in the sample are thought to be performing above average in the areas of charismatic leadership, competitive intelligence, and having the specific characteristics of change process needed for success in business innovation. The relatively large standard deviations indicate significant differences among all the major variables from company to company.

To test hypotheses H1-H4, Pearson’s correlation coefficients were computed and presented in Table 3. All four independent variables show a direct relationship to success in business innovation, as defined in this study. Thus, based on these correlation coefficients, all four hypotheses are found significant at the 0.01 level or better. Because of the possibility of collinearity among the independent variables, a stepwise multiple regression analysis was conducted to assess the extent to which each independent variable incrementally contributes to explaining the variance in the dependent variable. Table 4 shows that, dependent on the sequence in which the independent variable entered the regression equation: competitive intelligence explains 34 percent of the variance in innovation success, followed by the features of the innovation process, strategic leadership, and management of technology. Each independent variable makes a contribution to that effect at a significance level below .05.

Results Regarding Company Absorptive Capacity as Moderating Variable

The moderated regression results are presented in Table 5. As explained earlier, the increment in R², rather than the magnitude of the beta coefficients, is used to determine the relative contribution of the independent variables in explaining variation in the dependent variable. Results in Table 5 also show that company absorptive capacity showed significant interaction effects on the relationships between competitive intelligence, management of technology, and characteristics of the process used to implement the necessary innovations.

Regarding CI, there are some major implications from this study results. To improve their CI programs, managers need to consider the collection of market intelligence based on what they want to learn about in this study: the traditional industry competitors, emerging competitors, traditional customer needs and wants, non-traditional customer needs and wants, relationships with business partners, and new product or service development. This implies that the sales force of any one of these areas may be relatively higher or lower, and in some cases some of these sources may be irrelevant, depending on the company’s specific industry sector, lines of business, products, and processes being considered. Good performance in these areas, whenever applicable to the company’s industry sector and lines of business, are likely to lead to better innovation success.

Also, before embarking in major programs for business innovation such as TQM and/or BPR, which are supposedly market driven, the implications for company strategic competitiveness from these changes should be validated with CI information, rather than superficial guesswork by top managers or BPR consultants more focused on the innovation process instead of the strategic reasons for change. At the very least, the market reaction must be carefully considered by any team charged with projects involving significant innovations to business processes, products, and/or the organization itself. As our sample indicates, on average companies are performing below average in this area most important to successful business innovation.

In the area of strategic leadership there are also several implications. Business can have the classic charismatic leadership (showing determination while accomplishing goals, inspiring confidence, making people feel good around you, communicating expectations for high performance, generating respect, transmitting a sense of mission, and providing a vision of what lies ahead) is on average and as a whole relatively scarce in today’s business, and thus it is considered to be desirable to develop. Nevertheless, managers must try, particularly in high clockspeed industry sectors (Guimaraes et al., 2002) requiring continuous innovation. Also important for successful business innovation but less scarce than charismatic leadership, transactional leadership (taking action if mistakes are made, pointing out what people will receive if they do what needs to be done, reinforcing the link between action and goals and obtaining rewards, focusing attention on deviations from what is expected, and rewarding good work) by its nature should be easier to develop. Pauwels and Kotman (1997) proposed that transactional leadership is more relevant within an existing organization environment instead of one attempting
to implement changes. Katz and Kahn (1978) argued that charismatic leadership may be more relevant where organization change is important, but that both types of strategic leadership are potentially important. Our results indicate that charismatic leadership is an important factor in successful business innovation both types of leadership are important.

To improve technology management while implementing business innovation, managers must look at company performance in terms of its technology leadership position in its main industry sectors, knowledge of how to get the best technology available, effective use of specific technologies, and benchmarking the use of specific technologies against the company's main competitors or best-in-class target organizations. An important requirement to accomplish these objectives is the clear definition of the more important technologies necessary to support the company's main products and business processes, and technologies which will enable the structural and cultural changes considered important to improve company competitiveness. Another important requirement is management recognition that the implementation of each of the various technologies deemed important to the organization are dependent on specific success factors. The success factors for the various technologies have been identified and discussed elsewhere (Guimaraes et al., 2014; Guimaraes et al., 1992; Udo and Guimaraes, 1994; Yoon et al., 1995; Yoon et al., 1995; Guimaraes and Iqbaria, 1997; Yoon et al., 1998) and are considered beyond the scope of this paper.

Further, to improve the likelihood for innovation success, top managers must ensure that their company's change process bear the desirable characteristics studied here: all significant changes must conform to company objectives, all affected departments participate in the change process, individual employee input is considered important, customers input is considered important, business partners input is considered important, managers ability to balance risk taking with cost/benefit, ensuring that clearly defined measures to monitor progress exist, that innovation objectives and practices are clearly communicated, and that the innovation management teams respond quickly and effectively to required change. These guidelines must be widely disseminated and enforced by project managers responsible for the innovation project.

The effect of company absorptive capacity on innovation success and its success factors is quite significant for research and practice. The results indicate that it does have a magnifying effect on the success factors for business innovation. Thus the knowledge base for effective competitive intelligence, effective management of technology, and effective innovation project management seems to be leveraged for companies with higher absorptive capacity and less productive in terms of innovation success in companies with lower absorptive capacity. In the minds of practitioners that will beg the question: What can we do to increase company absorptive capacity? The answer will vary in the area of Human Resource Management (HRM) improvements because every item used to measure absorptive capacity is directly dependent on employee abilities and performance. Therefore to develop an effective company absorptive capacity the HRM sub functions (employee recruiting, retention/remediation, development/training, performance evaluation, and rewarding) must be taken more seriously than it is being done today in most organizations. These HRM sub functions must be revamped and charged with some long term objectives designed to give the company the people it needs to perform better along the company absorptive capacity items used in this study. Some policy making directions should for example include a stronger HR department whose director reports directly to the CEO and is an integral member of the corporate executive team. Essential for effective recruiting would be the development of a desirable working environment where intelligent, knowledgeable people want to come to work, rather than viewing people as a commodity whose cost is to be continuously minimized. Also helpful would be a work environment where workers are empowered to make decisions, are responsible for their results and with promotion from within preferred. Last, our results showed that strategic leadership is equally significant for high and low absorptive capacity companies. In either case, it is very important for developing employee morale and trust in management, as well as the creation of a spirit de corps among team members working on innovation projects.

Study Limitations and Research Opportunities

Based on an extensive survey of the relevant literature, this study is a first attempt at empirically testing the importance of company absorptive capacity as an influence in the connections between strategic leadership, competitive intelligence, management of technology, and specific characteristics of the company's innovation process for the success of business innovation projects. While the tested model represents a major contribution as an integrative source which has the potential to be expanded further to include other factors potentially important to effective implementation of strategic business innovation. Another important consideration from further research could be the identification and empirical testing of other variables besides company absorptive capacity which might moderate the relationships between the independent variables and success in business innovation. Perhaps the use of path analytic modeling techniques would be applicable for these studies involving more extensive models. The results should provide valuable information on other possible determinants of innovation success, as well as on the extent to which strategic leadership can positively influence the effective use of technology, and CI programs, for companies to improve their business competitiveness, while ensuring that their innovation processes follow the prescribed guidelines suggested in this study.

REFERENCES


Absorptive Capacity as Moderator for Company Innovation Success


Entrepreneurial and small businesses provide valuable services and products that contribute to the growth and sustainability of economies from both local and the national perspectives. The presence of these locally-owned businesses is evident in every city, town, community, and often can be found in rural, off-the-beaten-path locations. Consider those more visible establishments such as restaurants, healthcare facilities, professional services (legal, accounting, insurance agencies, real estate agencies, etc.), religious organizations, and retail businesses, as well as the less visible, but equally important, establishments like consulting practices, event planners, and public relations experts, and how many of these types of businesses are available in each town, city, and community throughout the nation. The need for these entrepreneurial and small businesses to continue to thrive in their areas is critical and, even with the available resources, additional ones can prove to be vital in meeting their needs for sustainability, growth, and addressing the unique issues faced daily.

The Small Business Training Series is a partnership between the small, rurally-located Riverton-King County Chamber of Commerce and Economic Development Center (C/EDC) and business professors from a local university. The program offers training to chamber members, of which the focus is placed on small business owners, managers, and employees.

The Small Business Training Series, which completed its fourth year, is a blend of education, networking, and a lunch break for hardworking individuals, who are in many ways the economic backbone of the rural area. By partnering with the business professors, the C/EDC brings in experts to help local business personnel grow their companies, manage their workforces, and better prepare for the future of their organizations.
The Riverton-King County Chamber of Commerce and Economic Development Center

As in many rural locations, the Riverton-King County Chamber of Commerce and Economic Development Center are combined in one organization. This allows the county to benefit from the resources of both, including the personnel, events, activities, and programs designed to promote the area to residents, employers, tourists, and potential employers, as well as organizations seeking a location to conduct temporary business, such as the film industry and pop-up retailers.

Five full-time employees oversee the C/EDC’s functions, programs, and daily operations. The Executive Director serves in the leadership role to ensure all areas of the organization make progress towards their project goals as well as meet their overall goals for the county. The Chamber Director provides guidance and direction for the specific functions of the chamber of commerce including the members, events, meetings, and programs. The Project Manager works to assist the economic development center in attracting new business to the county. There is also an Administrative Assistant to perform secretarial and receptionist duties and a Comptroller to oversee the budgets and expenditures of the C/EDC.

The C/EDC offers area residents, businesses, and tourists opportunities to experience King County through a variety of events and programs. Past ones have provided family-focused, community events, celebratory new business opening ceremonies, guest speaker events, fund raisers, committee work, and the highly popular annual meeting. The C/EDC also provides information about what is happening throughout the county, assistance for new residents to better know their community, and produces community events. Years 3 and 4 saw the number of participants attending each month increase to approximately 25.

The first chamber director, a Caucasian female, took a relaxed approach to planning the monthly training sessions. She scheduled each session one month in advance according to the number of employees and the participation of employees in the Small Business Training Series. Although manufacturing is the largest industry represented by participants attending each month, male participants attending each month increase to approximately 25.

The Chamber of Commerce and Economic Development Center are combined in to one organization. This allows them to promote the area to residents, employers, tourists, and potential employers, as well as organizations seeking a location to conduct temporary business, such as the film industry and pop-up retailers.

The participants who regularly attend monthly training sessions equal about 50% of the attendees. Of those 50%, approximately 42% are small business owners, 38% are managers of small businesses, and the remaining 20% are a combination of employees of small businesses, work for large businesses, or are individuals with no affiliation to a specific organization in the county. Another 45% of monthly attendees usually participate in multiple sessions, although they would not be classified as regulars. The remaining 5% of attendees account for participants who attend one session.

The majority of participants each month are over the age of 40, and a slightly higher percentage of males attend than females. Blacks or African Americans account for approximately 67% of attendees and 33% are Whites or Caucasian.

The variety of industries in the county is presented in Table 3, also provided is the ranking of each industry according to the number of employees and the participation of employees in the Small Business Training Series. The chamber members include businesses in all of the categories, however their participation in the program is sporadic, at best.

Table 1

<table>
<thead>
<tr>
<th>Selected data for the county</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Private nonprofit establishments</td>
<td>1,181</td>
</tr>
<tr>
<td>Private nonprofit employment</td>
<td>14,273</td>
</tr>
<tr>
<td>Nonemployer establishments</td>
<td>3,465</td>
</tr>
<tr>
<td>Total number of firms</td>
<td>4,469</td>
</tr>
<tr>
<td>Black-owned firms</td>
<td>43.9%</td>
</tr>
<tr>
<td>Asian-owned firms</td>
<td>2.6%</td>
</tr>
<tr>
<td>Hispanic-owned firms</td>
<td>1.5%</td>
</tr>
<tr>
<td>Women-owned firms</td>
<td>35.3%</td>
</tr>
<tr>
<td>Manufacturers (in $1000)</td>
<td>8,406,250</td>
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<tr>
<td>Retail sales (in $1000)</td>
<td>577,738</td>
</tr>
<tr>
<td>Retail sales per capita</td>
<td>$10.413</td>
</tr>
<tr>
<td>Accommodation and food service sales (in $1000)</td>
<td>93,800</td>
</tr>
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</table>

Table 2

<table>
<thead>
<tr>
<th>Program Attendance Years 1-4</th>
<th>Months</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>March</td>
</tr>
<tr>
<td></td>
<td>9</td>
</tr>
<tr>
<td>Employees</td>
<td>5</td>
</tr>
<tr>
<td>Nonemployer establishments</td>
<td>1</td>
</tr>
<tr>
<td>Total employees</td>
<td>6</td>
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</tbody>
</table>

Table 3

<table>
<thead>
<tr>
<th>Industries</th>
<th>Number of Employees</th>
<th>Rank: Number of Employees</th>
<th>Rank: Program Participation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturing</td>
<td>744</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Gaming</td>
<td>610</td>
<td>2</td>
<td>11</td>
</tr>
<tr>
<td>Retail</td>
<td>468</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Healthcare</td>
<td>390</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Agriculture</td>
<td>338</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>Professional Services</td>
<td>220</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>Government</td>
<td>140</td>
<td>7</td>
<td>2</td>
</tr>
<tr>
<td>Education</td>
<td>125</td>
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<td>9</td>
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<tr>
<td>Transportation</td>
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<td>10</td>
</tr>
<tr>
<td>Restaurant</td>
<td>96</td>
<td>10</td>
<td>12</td>
</tr>
<tr>
<td>Media</td>
<td>75</td>
<td>11</td>
<td>6</td>
</tr>
<tr>
<td>Lodging</td>
<td>65</td>
<td>12</td>
<td>8</td>
</tr>
</tbody>
</table>

Although manufacturing is the largest industry represented in King County, its employees are fourth in rank when it comes to participating in the Small Business Training Series. The gaming industry, second in size, ranks eleventh out of twelve total industries in the county who attend the monthly sessions. In addition to gaming, the restaurants, transportation, and education sectors are the least participative in the program, whereas the retail industry, government...
ment entities, and professional services have strongest attendance in the program.

Through partnering with local training experts, the C/EDC has developed a valuable program for its members, providing a financially beneficial and much needed assistance to the local economy, and created a resource to assist in the overall recruitment and retention of small businesses in the area.

The two business professors serving as program facilitators have remained the same throughout the program’s existence. One professor is an African American male with approximately 10 years teaching experience at the local university. She has owned several small businesses and grew up in an entrepreneurial environment—her family established, owned, operated, and sold numerous businesses. The other professor is a Caucasian male with approximately 10 years teaching experience at the local university. His career has included working for small businesses, researching topics of interest to small businesses, and owning a consulting business with the female program facilitator. The cost to the C/EDC for the professors’ time and expertise is strictly reimbursement for their travel expenses, which total $50 each month. The cost to the participants is included in their chamber fees, which did not increase when the program was added four years ago. They are not charged a fee for the meal nor do the professors charge for any expert advice shared with the attendees during the training sessions.

From March through December, the training sessions are held one day each month. Year 1 the sessions were on the third Wednesday of the month, Year 2 on the second Tuesday, Year 3 on the fourth Friday, and Year 4 on the third Friday. The sessions for all four years have been during the traditional lunch hour. The trainings were hosted by the C/EDC in their downtown office location, as the conference room provided plenty of tables, comfortable chairs, and the necessary technology to conduct the sessions.

In order to meet the needs of the local businesses and plan the topics to be covered for the next year, the facilitators administer a survey to gather information from the chamber members as to which topics are most in need and of interest to attendees. The survey allows participants to not only select from a list of available topics, but also an opportunity to write in additional suggestions, of which the chamber director provides the chamber in order to solicit feedback from as many interested parties as possible. With the information collected, the professors provide the chamber director with a list of the topics and dates for the next year’s program. Upon approval by the chamber director, the information is distributed to the members. This method allows all chamber members to have input in the program and informs them of the sessions’ dates and topics well in advance to provide them with the opportunity to make plans to attend.

Participants are often business owners and managers who seek to build their organizations, address issues faced by their employees, and prepare for future expansion of their companies. Given the size of the businesses, many times the cost of on-site training is not feasible, nor are specialized programs that require employee travel. However, the convenience and availability of this small business focused monthly training is valued by the program members, and is not only cost efficient, it also allows these critical players in the company’s daily operations to receive needed information in the time they usually take for lunch. The added benefit for some food service organizations is the opportunity to share their products with program participants, thus providing a sample of their offerings to other area businesses, which often leads to more business utilizing the company for their own needs.

At the end of each session, participants complete evaluations to provide feedback to the facilitators and the C/EDC to ensure the needs of the area businesses are in alignment with the training they receive. The evaluations allow participants to provide feedback, which is reviewed by the facilitators to allow them to make any changes suggested that are both feasible and notable to a majority of the participants. The chamber director is provided an overall summary to include in reports, meetings, and other ways of demonstrating the value of the training program to stakeholders. The questions asked in the evaluation are provided in Figure 2.

The evaluation consists of 10 questions in which the evaluator rates the session they just participated in according to the questions asked on a scale of 1 (strongly disagree/very poor) to 5 (strongly agree/excellent). The annual feedback for years 1–4 is provided in Figure 3.

LACK OF GROWTH

The program, despite its success, has experienced a lack of growth in recent years. Marketing efforts are focused primarily on chamber members, who receive weekly e-blasts and quarterly newsletters, which include information about the program. The C/EDC website does not mention the program in its training section. The promotional items, such as pamphlets and videos, created and distributed by the C/EDC to promote the county to potential businesses does not highlight or discuss the program. The program is not marketed to non-chamber members. The participants, although enthusiastic about training, are a very small percentage of the total membership.

QUESTIONS/DISCUSSIONS

1. What additions and changes could be made to the Small Business Training Series program in order to increase participation? Discuss the pros and cons of each suggestion.
2. Assess the evaluation tool used in the monthly training sessions (Figure 2), including the administration of the tool to participants. What changes to this evaluation might strengthen the feedback received?
3. List and discuss additional training topics that should be considered to be included in future sessions in order to widen the appeal to area businesses.

TEACHING NOTES

This case is best used in courses on the undergraduate level. It is most valuable in basic, introductory, and lower level courses. Suggested courses for inclusion of this case are:

- Marketing Principles
- Entrepreneurship
Questions/Discussions

1. Identify the problems and factors contributing to the issues faced by the Riverton-King County Chamber of Commerce and Economic Development Center.

   Pros
   - There is a lack of expanded, creative, and all-encompassing program promotions.
   - The program facilitators have remained the same throughout the program.
   - Participation in the program is only offered to chamber members.
   - A perception might exist that the program's cost being included in the chamber membership fee means it is not a quality program. (People tend to place value on items based upon the cost to them.)
   - Competition for the training series in the form of webinars, YouTube videos, seminars in nearby cities, etc.

   Cons
   - The regular participants might have scheduled their work to accommodate the set day and time of the monthly training sessions. Changing this could disrupt their availability. Also, moving to a different location for each session could cause confusion.

2. What additions and changes could be made to the Small Business Training Series program in order to increase participation? Discuss the pros and cons of each suggestion.

   Student ideas will vary, but may include:
   a. Provide new training topics not listed in Figure 1.
   b. Change the time, day, and/or location of the sessions to better fit the participants' availability.
   c. Include other facilitators, including some who specialize in specific areas of interest to the participants.
   d. Expand promotion of the program.
   e. Include non-chamber members in the program.
   f. Charge a fee to participate to add perceived value of the program.

   An example of the pros and cons of suggestion b. above, Change the time, day, and/or location of the sessions to better fit the participants' availability, is provided below:

   Pros
   - By surveying the participants to determine the best time and day for their inclusion in the program, they could ease some restrictions and increase their freedom to attend. By moving the location, participants would have opportunities to attend sessions closer to their businesses or, should they volunteer to host a monthly training session, they could showcase their business to other participants.
   - Additionally, having participating businesses host the monthly sessions might increase attendance as the hosting business owner/manager will want to look good to the other program participants and the C/EDC, and, as a result, may require their employees to attend the training session at their property.

   Cons
   - The regular participants might have scheduled their work to accommodate the set day and time of the monthly training sessions. Changing this could disrupt their availability. Also, moving to a different location for each session could cause confusion.

3. Assess the evaluation tool used in the monthly training sessions (Figure 2), including the administration of the tool to participants. What changes to this evaluation might strengthen the feedback received?

   The evaluation has remained unchanged throughout the program's existence and should be updated to allow for more applicable and relevant feedback, thus prompting an evolution of the program. While student suggestions will vary, some examples of possible changes are provided below:
   - Allow participants to freely provide feedback through open-ended questions/comments.
   - Delay the administration of the evaluation as opposed to having participants complete it at the end of each session. By emailing it to participants after some time has passed, the feedback received might be more accurate. Also, this will allow the addition of a question related to the usefulness of the training to their job.
   - For questions 6 and 7 participants must evaluate the two facilitators collectively. This may be hindering the quality of the feedback. By providing each question as pertaining to a specific facilitator, the participants can properly evaluate each facilitator, thus helping to improve his/her section of the training, thereby strengthening the overall program.

   When assessing an instrument of this nature, it is critical that students understand the value in identifying and recognizing the parts that are effective and work well. In their assessment of the evaluation tool, students should list the parts that meet the needs of the program, facilitators, C/EDC, and participants.

   Some suggestions include:
   - The evaluation tool is simplistic in wording, layout, and purpose. Remember this is not an exam, and therefore, a simple approach is best.
   - Each monthly session is evaluated, which provides continuous feedback about the program.
   - The participants' feedback is valued and appreciated. The information collected from the evaluation is analyzed and changes are implemented based on the feedback received.

4. List and discuss additional training topics that should be considered for future sessions in order to widen the appeal to area businesses.

   Student suggestions will vary. Some possible topics include:
   - Insurance
   - How to protect your business from cyber theft
   - Social media
   - Risk management
   - Health and Safety

Group Activities

Promoting the Program and Increasing Membership

The Small Business Training Series program is not marketed to non-chamber members as a means to recruit new members. This program is unique and could be used to expand membership and participation, if promoted correctly.

In small groups (consider 3-5 students in each group), have students develop ideas for promoting the program to increase participation and chamber membership. Each group should develop an action plan for one of its ideas. Included in the plan should be a discussion of the resources needed to carry out the plan, the steps to be taken in implementing the plan, and the role of the C/EDC employees in the plan.

Allow approximately 20 minutes for group discussions and plan development. Have each group briefly share with the class its selected idea and action plan. Allow each group 5-7 minutes to present their work followed by an open class discussion.

Increasing Attendee Participation

In both Figures 2 and 3, questions 8 and 9 (which relate to the interaction, participation, discussion, and questions of the attendees at the sessions) were noted to be of concern and have been the focus of the facilitators throughout the program’s existence. As such, improvement has been made each year in relation to these matters. In small groups (consider 3-5 students in each group), have students develop ideas for further improving these areas. Remind them to keep in mind that any increase in time for audience interactions reduces the available time for the other parts of the training.

Allow approximately 10 minutes for group discussions. Have each group briefly present its ideas to the class followed by an open class discussion.
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INTRODUCTION

Business communication and organizational behavior texts discuss several uses of communication. This case will concentrate on the importance of information sharing and the barriers to effective communication. Selective perception, language, and silence are three communication barriers that will be illustrated in the following case. Selective perception can be seen as a barrier due to receivers seeing and hearing based on their experiences and backgrounds. Communicating in the same language, at times leads to words being interpreted differently by different people. Silence is a barrier because it limits information that should be given to receivers or that the receiver should provide as feedback.

This case will attempt to have students respond to the following questions from four scenarios.

1. Does “one” mean one at a time or does it mean number one?
2. Which is less expensive, a long distance phone call, or Easter pay and private transportation?
3. Was the product too tall or the back dock roof too short?
4. Will a large volume fit in a small one?

BACKGROUND

TD Company is a small refrigeration manufacturing business located in West Tennessee. The company has approximately 125 hourly employees and has approximately $4.3 million in sales yearly. It was founded 60 years ago by an individual and continues to be privately owned. Manufacturing units are located in West Tennessee, Canada, England, and Australia. The corporate office is located in Nashville, Tennessee. Salespeople in the field or headquarters do most of the bidding on contracts. This case pertains to the plant facility located in West Tennessee.
maintenance manager along with the truck driver begins the unpacking process by hooking up hoses to two of the cylinders on the truck. These hoses are then run through a window in the foam building and attached to two storage tanks within the building. An air hose is attached to the top of the truck though a device called a “Christmas tree”. This tree is a small cross-like device used to ensure that the compartments do not become over pressurized. Once a container has sufficient pressure, the chemical is literally blown off the truck, through the hoses, into the storage tanks within the building.

**SCENARIO 1**

One late day in November, the foam truck arrived at the plant to be unloaded. John, the maintenance manager began helping Tom the truck driver get the hoses off the truck. While they were doing this, Bill, the quality manager began taking samples from each compartment on the truck. While Bill was conducting the tests, John carried the bill of lading to the front office so they could begin processing payment. When John returned, Bill had finished his analysis and said that the shipment was good to quality wise. John then told Tom, the truck driver that if he had two “Christmas trees”, they could pressurize two compartments at the same time and blow off both chemicals at once. Tom said that he had only brought one “Christmas tree”. Therefore, John said, “We’ll just do one at a time.” He then began to look the hose on the inside of the building to the “A Foam” storage tank, which happened to be the first tank. While he was doing this, Tom was hooking his hose up to compartment one, which contained “B Foam”. With compartment one of the cylinder fully pressurized, John turned the lever that allowed the chemical from the truck to flow into compartment one. Suddenly John’s and Bill’s faces turned ghost white. Something had gone wrong.

**For the original question:**

Does one mean “one at a time” or does it mean “one at a time”?

Now for the original question:

Was the product too tall or the back dock roof too short?

**Discussion Questions:**

1. From a communication standpoint, what went wrong with the chemical mix-up?
2. What procedures would you suggest be implemented to prevent an accident like this one from occurring again?
3. Identify and discuss barriers to effective communication that contributed to this problem.
4. What procedures would you suggest be implemented to prevent mistakes such as this from occurring in the future?

**SCENARIO 2**

As always, production of the refrigerator for a special project in Texas was behind schedule. In fact it was so far behind, that the plant manager was trying to decide if working on Easter Sunday would be worth the effort to get the product completed at least close to the scheduled date. A local independent contractor was willing to deliver the refrigerator by private truck to the construction site in Texas. The production control manager had called the supplier in Texas and was urged to do everything possible to ship the refrigerator as close to the due date as possible. The production of the refrigerator was completed on Saturday afternoon, at which time quality control tests were started. These tests required several hours to complete, therefore testing personnel were asked to work on Easter Sunday. Completing the test on Sunday, allowed the refrigerator to be loaded first thing Monday morning and transported to Texas, an approximately 12-hour drive. Everything went as planned and the independent contractor departed Monday morning for Texas.

Two days later when the owner of the private truck returned, he had this story to share. He had arrived at the construction site, a shopping mall, late that night. He had to stay over until the next day to get help in unloading the refrigerator. Early the next morning, the construction supervisor said he did not need the refrigerator, but that it could be stored until needed. You see as most mall construction projects go, this one was no exception. It was behind schedule.

Now for the original question:

*Which is cheaper, a long-distance phone call, or Easter pay and private transportation?*

**Discussion Questions:**

1. From a communication standpoint, what went wrong with the production schedule and shipping?
2. What procedures would you suggest be implemented to prevent an accident like this one from occurring?

**SCENARIO 3**

Frank, a member of the engineering department had just finished the design specs for a new Walk-In refrigerator. Walk-Ins were much larger than the standard commercial refrigerator and some could actually accommodate a large truck. This particular walk-in had been designed for an oil drilling rig off the coast of Louisiana. It was small compared to most walk-ins, but it had to be mounted on a special wooden frame, rather than packaged in corrugated cartons. The walk-in and its frame were to be transported by truck to the coast where it would be delivered to the oil rig by boat. The walk-in was completed on time and taken to the back dock as the truck was arriving to pick it up along with other refrigerators. However, a problem was observed as the walk-in reached the back dock. The roof sloped down too far and at an angle that made it impossible for a forklift to load the walk-in on the truck. In fact without the forklift, it was still too high to be loaded on the truck. This predicament reminded the shipping supervisor of the old story about the boat being built in a basement with no way of getting it out. However, in this particular case, the solution was a simple one; notch a hole in the roof.

Now for the original question:

*What is the total volume of the containers?*

**Discussion Questions:**

1. Did Frank have any miscommunications with anyone? Perhaps a better question would be, did Frank communicate with anyone?
2. What precautions should Arnold have made other than the costs of the refrigerators and their packing volume?

**TEACHING NOTES**

Students should become aware of at least two examples of miscommunication among managers and workers. They should be able to offer suggestions as to how these problems can be avoided.

**Scenario 1 answers:**

1. None of the three men shared information with each other. Each man was preoccupied with peripheral concerns. These containers measure 8’ x 8’ x 20’ for a total volume of 1280 cubic feet. The bid included costs for using the overseas containers as well as the cost of the refrigerators.

Arnold, the home office individual responsible for the bid, calculated that a total of seven containers would be needed for this shipment. He determined this number by taking the size of the refrigerators, 3.5’ x 3.5’ x 7’, to get an individual volume of 85.75 cubic feet. This number was divided into the total volume of 1280 cubic feet to come to the conclusion that 14 or 14 refrigerators could be shipped per container. Since the order was for 95 refrigerators, he calculated that 6.8 or 7 containers would be sufficient for the shipment.

As the refrigerators were being built and placed in the containers, the number of refrigerators stayed at 95, but the number of containers increased to 22. Since they were going overseas, the refrigerators required special bracing for the trip by rail to the docks and additional bracing for the trip by ship to their final destination. They could not be stacked on top of each other. Also, the extra bracing took up much needed space that could have been used for additional refrigerators.

Now for the original question:

*Will a large volume fit in a small one?*

**Discussion Questions:**

1. Did Arnold misunderstand the packing volume?
2. What barriers to communication did Arnold experience?
3. What precautions should Arnold have made other than the costs of the refrigerators and their packing volume?
forming his job and treated that job as if it were separate from any other part of the foam unload-
ing procedure.

2. Several checks and balances should have been implemented to prevent this accident.
   a. The maintenance manager should have
      checked the bill of lading to identify which
      chemical was in which compartment. He
      could have verified this by examining the
      ground for the chemical spill drawn by the
      quality manager for his sample.
   b. While the quality manager was conducting
      his tests, the maintenance manager should
      have asked him which tank contained which
      chemical. This would have been a double
      check against what the maintenance manager
      observed and what the bill of lading showed.
   c. While the maintenance manager was hook-
      ing his hose up on the inside, the truck driver
      was hooking his hose up on the outside. No
      one checked the overall hookup to ensure
      “Foam A” in the truck was hooked up to
      “Foam A” in the building. Either the mainte-
      nance manager or the quality manager should
      have traced the hose from inside the building
to the compartment outside on the truck.
      Only then should the lever have been thrown
      to allow the chemical to flow into the inside
tank.

3. Several barriers could be discussed here.
   a. Sender barrier—Each man fails to speak up
      and question the other as to the correct at-
tachment of the hoses.
   b. Encoding barrier—Maintenance manager
      had meant to unload the foam, one
      container at a time. He intended to start with
      the first compartment.
   c. Decoding barrier—The trucker understood
      the manager’s comments to mean that com-
      partment one would be unloaded first.
   d. None of the managers ask for feedback from
      each other.
   4. A procedural manual should be developed and
      all personnel trained to follow it. To maximize
      similarities between the training and the job,
      the trainee could job shadow an experienced
      manager. The trainee should be given knowledge
      of the dangers of the two foams being mixed
      improperly.

SCENARIO 2 ANSWERS:

1. More time should have been allotted for pro-
   duction of this particular refrigerator, due to its
   importance.

2. Several barriers could be discussed here.
   a. Sender barrier—Production control manager
      and salesperson did not discuss the possibil-
      ity of calling the customer.
   b. Medium barrier—Although the phone was
      used between production control manager
      and salesperson, it was not used to contact
      the customer.
   c. Without contacting the customer, no feed-
      back was provided.

3. While the salesperson and production control
   communicated with each other, no one commu-
   nicated with the customer. Specifically, no one
   investigated the possibility that the construction
   project might be behind schedule. A short phone
call to the construction foreman might have
prevented the use of unneeded production time
at the factory. This time could have been better-
spent producing refrigerators that were crucial to
other customers.

SCENARIO 3 ANSWERS:

1. Frank did not communicate with the appropriate
   people. He knew this was a special product with
   different shipping instructions. The managers of
   the engineering department and the production
   control should have been informed. They in turn
   should have checked with shipping as to how
   much clearance was available on the back dock.

2. While this problem may seem like the excep-
tion, there still needs to be one person assigned
the responsibility of ensuring all products can be
shipped regardless of the type of packaging.

3. Customer orders that have special dimensions
   should be communicated to all departments that
   have a responsibility for producing and shipping.
   These departments should include the heads of
marketing, engineering, and production control.
The marketing department should be sure that
the bid was enough to cover the additional ship-
ing costs. Engineering and production control
should work together to ensure that the most
economical type of shipping is used. Production
control will need to be coordinated with ship-
ing to ensure that the dimensions of the special
order can be shipped by commercial truck.

SCENARIO 4 ANSWERS

1. Arnold evidently did not realize that overseas
   shipping took 2 bracing. He should have contact-
ed the plant’s shipping department in advance of
his bid.

2. Arnold’s primary barrier was complete silence.
   He did not contact anyone.

3. Arnold may need to enroll in a good math class at
   the local community college. Maybe consulting
with the plant’s engineering department would
have given him a hint that there is usually some
wasted space when attempting to load cargo in a
fixed size container.
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INTRODUCTION

Historians believe that early modern man (homo sapiens) persevered over competing humanoid forms via their ability to unite in large numbers due to a shared belief in something powerful and intangible (Harari). Those early shared beliefs were in gods; but later in the course of humanity a shared medium of exchange, a “currency”, forged a common belief in something powerful and intangible.

Now “we may be at the dawn of a new revolution” which started with the digital bitcoin currency (Swan). Bitcoin allows the instant certified transfer of money electronically between possibly unrelated and distant parties without the need for any intermediary trusted authority (i.e. bank); the certification is via an indestructible “public ledger” of the transfer transactions.

But it is really the technology behind bitcoin, something called the “blockchain”, which is the driving factor for this new revolution. What blockchain did for currency, it may do to an even greater extent for many other areas of business and their supporting information systems.

In this paper, we discuss the blockchain technology and the reasons why it may replace tradition business information systems. We also explore and illustrate this in more detail for one of the many possible business disciplines in which the blockchain will be utilized - the accounting discipline.

The BLOCKCHAIN: THE FUTURE OF BUSINESS INFORMATION SYSTEMS?

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ABSTRACT

Historians believe that early modern man (homo sapiens) persevered over competing humanoid forms via their ability to unite in large numbers due to a shared belief in something powerful and intangible (Harari). Those early shared beliefs were in gods; but later in the course of humanity a shared medium of exchange, a “currency”, forged a common belief in something powerful and intangible.

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But it is really the technology behind bitcoin, something called the “blockchain”, which is the driving factor for this new revolution. What blockchain did for currency, it may do to an even greater extent for many other areas of business and their supporting information systems.

In this paper, we discuss the blockchain technology and the reasons why it may replace traditional business information systems. We also explore and illustrate this in more detail for one of the many possible business disciplines in which the blockchain will be utilized - the accounting discipline.

Business is based upon a trust that each party will perform their roles in a transaction. These transactions need to be recorded to reflect the effect of such upon the parties thereto. To an ever increasing extent business transactions are carried out and recorded electronically via our modern business information systems. For an information system to be trustworthy, it must preserve the confidentiality and integrity of the transaction information, and that information system must have a high degree of availability so parties who need to view the information, and who also have authority to do so, can do so upon demand. Thus derives the so called “CIA Triangle” of modern information security: confidentiality, integrity, and availability (Whitman).

A blockchain is a decentralized, distributed, ledger which confirms and stores transactions added to the chain. It is not owned nor controlled by any one party and the entire chain is replicated on many servers. For bitcoin, a blockchain is a chain of blocks each of which holds information about the history of a single bitcoin transaction.

An adopted business information system prevails over competing business information systems due to its ability to reduce the cost, time and risk of completing and recording business transactions while also preserving the CIA of the information. Via bitcoin, blockchain technology has been proven to be a trustworthy information system reducing time, cost, and risk of money transfer and pre-
serving the CIA of the associated information; however it is capable of being applied to many more, and possibly all, business areas.

**THE BLOCKCHAIN**

Blockchain has been enabled by a set of modern technologies including the internet, open-source peer-to–peer protocols (BitTorrent), rapid advancement in communications, enormous computing power, and modern cryptography. It is an electronic shared, replicated, distributed (organizational and geographically), and decentralized transaction file. CIA is a central trait of a blockchain since a transaction is committed in real time to the blockchain and connected via a hash to all those transactions that came before it. The transactions persists forever and cannot be deleted or modified. To ensure availability, the entire block chain of transactions is continuously replicated across many servers so that there is no central point of failure. Privacy is guaranteed by rigid credential checking techniques and protected through modern encryption.

The crypto-technology behind the blockchain is based on asymmetric encryption or “public-key” encryption. This type of encryption uses two different but related keys, either of which can encrypt or decrypt a message or transaction. If one key encrypts the message the other key can decrypt it. One key serves as the private key (retained confidentially by the initiating party) and the other key serves as the public key. Back calculating a private key from a public is either impossible (due to the one-way hashing used) or prohibitively expensive. A party to a blockchain obtains an address, a public key, and a private key; all of which are automatically generated when the blockchain application program (or “app”) that is installed on the party’s computing device. The installed software generates a large random number, and using ECDSA (Elliptic Curve Digital Signature Algorithm) generates a private key, testing values between 228 to 128 bit numbers). From the private key, the public key and address are computed. The address is typically not the public key, but a transformed version of the public key for more efficient usage, greater security, and a checksum. The blockchain unique address is externally represented as a “hash”, and that block is “authorized” by the sending party’s private key.

A distributed consensus system called “mining” is part of the blockchain system to provide for greater integrity. Mining confirms that the transactions are coded into blocks according to the cryptographic rules and enforces the time sequence placing of blocks on the chain. In bit-coin the miners are compensated by earning a fee (in bit-coins) for the use of their servers; other blockchain applica-
tions use other incentives. The blockchain is replicated across a number of nodes (servers) who share the entire chain and perform the mining. Every block contains a hash of the previous block and preserves the entire chain’s “DNA” into each block. Each block is guaranteed to come after the previous block chronologically and integrity is preserved once the block has been added to the chain. The unique feature of some party can always be calculated by scanning the full chain.

**BUSINESS APPLICATIONS**

Most business applications currently maintain data, including asset info and financial transactions, in relational databases (RDBMS). The data in the RDBMS is manipulated using SQL (Structured Query Language) statements. Multiple copies of the data are needed for operational considerations (logs and locks) as well as for backup and business continuity. These RDBMS are for the most part centralized and unencrypted. As well as being relatively expensive and inefficient, they are vulnerable to user errors, fraud, operational failures, and cyber security attacks. Differences between DRMS data item representa-
tions within an organization and between organizations foster inconsistencies that necessitate expensive and time consuming reconciliation.

In general data can be characterized by the “three V’s” of volume, velocity and variety which are useful in understand-
ing the nature of the data and the hardware and software platforms needed to best support such data. In addition to the traditional need to store characters and numbers, the internet and in particular social media have driven businesses to store so-called “big data” which includes images, music, videos, and numerous social media objects such as “tweets.” According to Stonebraker, “current RDBMS while at-
tempting to be a one size fits all solution, in fact, excel at nothing. They are a 25 year old legacy that should be retired in favor of a collection of specialized engines.” To handle the very large volume and velocity of big data, many organizations are replacing or augmenting their traditional RDBMS with these new specialized engines new called “NoSQL.” (Not only SQL) platforms. As illustrated in the figure below, data which has high volume and/or high velocity is now being stored in these new NoSQL type of platforms which typically span multiple servers, thus, improving the number of “commodity” type low cost servers instead of a central-
ized mainframe or server farm. New technology such as Hadoop/MapReduce has been developed to orchestrate the flow of data processing tasks by distrib-
uting a task across many servers.

To meet the unique needs of different kinds of big data, several software database architectures have been devel-
oped for the new NoSQL platforms including key-value, column, graph, and document. Blockchain can be thought of as another NoSQL type of distributed data architec-
ture. As stated by Mougaya, “The blockchain is the new database – get ready to rewrite everything. For developers, the concept represents a paradigm shift in how software engineers will write software applications in the future.” (Mougaya) As just as money is transferred from one party to another via a blockchain, a bitcoin can be used to transfer own-
ship or rights from one party to another involving almost any physical or intangible asset. This includes items that physically move upon the transfer from one party to an-
other and assets that do not physically move upon owner-
ship transfer. Using a blockchain to record such transfers is faster, cheaper, and provides better CIA that existing methods. It is faster and cheaper for a number of reasons, but the most important is the elimination of expensive and delay inducing third party intermediaries. Organiza-
tions who have a need to know about a transfer generally include not just the two (or more) direct parties to the transaction but possibly banks, agents, clearing houses, custodians, and government registrars or regulators. Con-
sider the last time you bought or sold a house. There were many intermediaries and participating parties (banks, at-
torneys, notaries, counties, cities, etc.), and typically each was due some kind of transfer fee or tax. With a common blockchain, time and costs are significantly reduced, since every party to the deal does not have to maintain their own copy of the data. This also minimizes errors and does away with reconciliation.

With a blockchain, and in general terms, instead of each business having to maintain information on their transac-
tions in separate databases (with copies for logs and backups), a communal organization (i.e. trade association) can hold all this information in one distributed database. Sales and asset exchanges can be handled instantaneously and without the time/cost/risk of one or more interme-
diaries. Compliance with industry regulations will also be easier and less expensive since a record of all past transac-
tions is directly available.

Hundreds of possible blockchain applications have been identified including a number of applications in each of these categories: currency and banking, accounting and auditing, financial, asset transfer, contracts, public re-
 cords (birth certificates, passports, voter IDs, vehicle reg-
isters), private records (wills, trusts, warrants, delivery receipts), insurance rights protection (license, copyright, trademark), medical records, reservations, coupons, and gambling. (Swan)

“Financial services firms will be early adopters, …, bankers want to get out in front of the technology, …the Nasdaq is already testing a blockchain-enabled platform” (Kiplinger [1]). Bankers perhaps have the most to lose if they do not “get there first”, so it’s no surprise that “the world’s cen-
tral bankers are contemplating digital currencies of their own” (Economist Staff). One of the criticisms of the pub-
lic ledger based bitcoin is that it makes it easier to laun-
den money, buy and sell drugs or other illegal items, and dodge taxes. But by setting up their own cooperative blockchain, then it could still earn some fees and protect against the aforementioned criticisms of the public bitcoin. Governments also like the idea of industry cooperative blockchains since it gives them access to the information.

As an example of keen interest by the Management Informa-
tion Systems (MIS) community, IBM is a major partner in the newly formed Open Ledger Project to develop an open-source blockchain software. IBM, in terms of the impact upon business higher education, it is not only the MIS discipline that will be significantly im-
pacted, but also other business disciplines including Busi-
ness Law, Economics, Banking, and Finance. As stated by Mougaya: “This is not just a computing phenomenon. Decentralized applications are going to enable a trend at the societal, legal, governance, and business levels because there is a race to decentralize everything and give power to the networks.” (Mougaya) Since there are so many pos-
sible business uses of blockchain, in this paper we are only exploring in more detail the accounting discipline since that is a business area upon which blockchain tech-
nology may have one of the highest impacts.

<table>
<thead>
<tr>
<th>Relational (SQL)</th>
<th>NoSQL</th>
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<tbody>
<tr>
<td>Low Volume</td>
<td>Low Velocity</td>
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<tr>
<td>High Volume</td>
<td>High Velocity</td>
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Fall 2016 (Volume 10 Issue 2)
ACCOUNTING SYSTEMS

Early accounting systems used "single-entry" methodology. Even today this type of bookkeeping system may be used for small business, since they are less expensive to obtain and maintain than modern double-entry systems, which also require a significantly larger amount of expertise to use. According to the U.S. Internal Revenue Service: "A single-entry system is based on the income statement (profit/loss statement) [IRS]. Such a system records the flow of income and expenses through the use of a "checkbook" – a series of deposits for income and checks for disbursements.

For management information purposes, the single entry system only shows cash flow and current cash balance. Although single entry systems are easy and knowing your cash position is important, managing your business with a checkbook is like trying to drive your car to a destination by only looking at the fuel gauge. Disadvantages include the fact that there is no balance sheet to show your overall assets and liabilities, the system is not self-balancing, mathematical errors in the balances are common, preparation of tax returns and other financial reports is difficult, theft and other such issues are less likely to be detected, and reconciliation of the books to external records is difficult.

Modern business accounting uses "double entry bookkeeping" in which a "chart of accounts" or ledger system is used to keep track of dollar amounts in different categories to satisfy the businesses needs for financial reporting both internally and externally. Single-entry systems just record what has happened double-entry, each transaction has to be explained by its effect on multiple accounts. If there is no explanation, then there is no entry. Money cannot just appear or disappear, it has to have both an origination and a destination. This is the basis of debits (DR) and credits (CR) in double entry accounting, where each transaction is booked when the money is received. While cash basis reporting organizations typically use a single-entry system, double entry bookkeeping may be also used.

The balance sheet is also known as the statement of financial position and it reports a company's assets, liabilities, and equity at a specific point in time. The income statement is known as the income statement that reports a company's revenues and expenses and the resulting net income. While the balance sheet is concerned with one point in time, the income statement covers a time interval. The income statement will explain the change (or much of the change) in equity during the time interval between two balance sheets. The organization's GL is not only used to produce the financial statements (balance sheet and income statement), but also used as the basis for tax returns, and for a variety of management reports.

For each transaction in double entry bookkeeping, the same total dollar amount is posted to multiple ledger accounts in which some accounts get a CR and some amounts get a DR with the total of the credits being equal to the total of the debits. "Regular" (standard recurring) transactions are typically established for the organizations business cycles: revenue, expenditure, production, and finance. Most source business transaction documents are posted to journals, and the journal totals are later posted to the general ledger from which financial statements are generated. In pre-computer days the paper journals provided for the "division of work" in larger organizations. So that instead of one accountant posting all transactions to a GL, a number of accountants could post to journals, and then at the end of an accounting period (typically a month), post journal totals to the GL. Journals also provide for easier control and auditing. Typically "journals" are set up for high activity business cycles such as a cash receipts journal and a cash disbursements journal.

With modern information systems, the journals are not separate entities, but logical parts of an overall relational database containing all the accounts and entries. In such a relational database, there are at least two relational tables. One table is for the accounts with account number being the primary key. The other table is for the entries with a control number for the primary key and the account number as the foreign key. Indexes are used for other reporting or sorting fields such as journal, reference numbers, dates, etc. Ledges for larger organization are not linear but hierarchal to provide for reporting at various detail to different levels of management. For a hierarchal master-detail model, a foreign key in the account table references the master account to set up this recursive forest (multiple node) data structure. For example:

<table>
<thead>
<tr>
<th>Account Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1100</td>
<td>Petty Cash</td>
</tr>
<tr>
<td>1110</td>
<td>Cash in Banks</td>
</tr>
<tr>
<td>1111</td>
<td>Bank A</td>
</tr>
<tr>
<td>1112</td>
<td>Bank B</td>
</tr>
<tr>
<td>1113</td>
<td>Bank C</td>
</tr>
</tbody>
</table>

Each accounting transaction, either journal or ledger entry, typically includes:
- Money (i.e. dollar) amount
- Date
- One of more reference numbers (such as the customer number)
- Description
- The general ledger (GL) account number(s) to be credited
- Dollar amount for each if more than one
- The general ledger account number(s) to be debited
- Dollar amount for each if more than one

An example of a sales transaction entry would be for the sale of $1000 of widgets from ABC Company to XYC Company:

<table>
<thead>
<tr>
<th>Account Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1120</td>
<td>Petty Cash</td>
</tr>
</tbody>
</table>

There are many errors that could occur in describing or in the posting (entry) of accounting transactions as:
- A document was skipped (not entered)
- A document was entered twice
- Key errors in the entry of a document including:
  - GL account number(s)
    - Invalid, omitted, or wrong number (mis-key, transposition, etc.)
  - Reference number(s)
    - Invalid, omitted, or wrong number (mis-key, transposition, etc.)
  - Money amount(s)

Before modern computers, recording transaction data to documents, documents to journals, and journals to ledgers was all done manually. This was very time consuming and error prone. Various "writing boards" and other "one-write" systems were developed to reduce the time and errors in this labor extensive process. In the early days of computers, information was entered from source documents onto keypunched cards, and the source documents were typically entered twice – "punch and verify" to minimize key errors. Later with entry onto display screens, and to reduce source document entry costs, the documents were often entered once with a visual verification. Check digits might be used for some numbers such as GL account numbers or reference numbers. Today online single source document error checking is typically done including verifying the GL account number and reference numbers against a database and making sure that dollar amounts for multiple account debits and/or credits add up to the total document dollar amount.

Much of today's transaction entry involves automatic posting by source document automation systems such as in store point-of-sale systems or e-commerce web purchase systems. These source data automation systems minimize not only entry time but also accounting entry errors. The remaining direct manual entry of source documents is typically a physical or virtual batch process for error checking and control purposes; batches might for example be formed from one day's entry of documents. Reports are generated (paper or on-screen) for each batch to typically show number of documents, total dollars, hash total of GL numbers, and hash total of reference numbers. These report totals are compared to manually generated totals and hash counts to find other errors including skipped or duplicated documents and wrong ledger or reference numbers.
In addition to error checking and consistency checking, a number of other measures are typically put into place called “internal controls” to further reduce errors and fraud, and to ensure compliance with applicable laws and regulations. Many of these are policy and procedure relat-
ed such as segregation of duties, supervision, job rotation, dual control, independent reviews, and data/program ac-
counts control (both physical and logical). Others controls may involve tests made by internal examiners to check the computer system and the procedures in place for the use of these systems. The examiners may prepare test data to run thru a parallel copy of the system database. That test data will typically have both valid and invalid source infor-
mation, and testing will check that invalid data has been properly identified and handled. Forward audit traces will show where each source document shows up in the finan-
cial statements, and reverse traces will show every source document that effected a certain value in the financial ledgers. Today sophisticated auditing software is avail-
able to look thru live database information identifying ab-
normal amounts, relationships, patterns, or other unusual situations. This typically includes duplicate checking such as did the same bill get paid twice or did the same cus-
tomer get billed twice for the same service/produce.

The following figure is a high level look at modern com-
plex accounting systems. Most accounting database sys-
tems are "walled-off" within the corporate physical and virtual barriers, so that detailed outside inspection is not possible without specific permission to specific informa-
tion. The complexity of this overall financial environment is costly, but the complexity of these systems has become so necessary to minimize errors and fraud. However that complexity also makes it easy to hide intentional dishon-
ourable situations. This typically includes duplicate checking such as did the same bill get paid twice or did the same cus-
tomer get billed twice for the same service/produce.

When an auditor issues an opinion that the financial statements are properly prepared and reasonably accurate, the public trusts that the auditors have done a diligent job and that all internal biases and self-interest has been put aside. But unfortunately this isn’t always the case, and we ultimately have scandals like the Enron case in 2001 with a loss of public trusts in the organizations, audi-
tors, and the entire system. To address these issues new accounting rules and regulations have been introduced such as the Sarbanes-Oxley Act. As a result, organiza-
tions are spending more on compliance and employing more forensic accountants, auditors and investing in more IT infrastructure. But perhaps the blockchain offers a better-cheaper-faster solution to this complex accounting and auditing nightmare. As a result the web is full of new blockchain approaches and designs for distributed finan-
ced ledgers.

In addition, companies can use the blockchain to track the movements of accounts receivable, accounts payable, and the entire financial statement. All backoffice transactions that are done for the company can be added to a ledger block, and the information about that transaction is distributed across all of the nodes connected to the blockchain. This allows the company to instantly verify the status of any account and to know exactly who has access to it. The result is that the company can reduce the risk of fraud and improve the accuracy of its financial statements.

The blockchain is a decentralized, distributed ledger that records transactions across many computers in such a way that the registered transactions cannot be altered retroactively. This technology is being used in a variety of industries, including the financial sector, to create more efficient and secure systems. In the financial sector, the blockchain is being used to create a new type of accounting system that is based on a distributed ledger. This accounting system is called blockchain accounting.

Blockchain accounting is different from traditional accounting in a number of ways. First, it is based on a distributed ledger, which means that the data is stored across multiple nodes and is not controlled by a single entity. This makes it more secure and resistant to fraud. Second, it is a real-time system that allows companies to see all transactions in real-time. This means that they can quickly respond to changes in the market and make informed decisions. Finally, it is more cost-effective than traditional accounting systems because it eliminates the need for middlemen such as banks and auditors.

In conclusion, the blockchain is a powerful technology that is changing the way we do business. It is particularly well suited for accounting systems, which are complex, expensive, and prone to fraud. By using the blockchain, companies can create a more secure, efficient, and cost-effective system for accounting and auditing.

**Blockchain Accounting Transforming the Finance Sector**

- **Traditional Accounting vs. Blockchain Accounting**
  - Traditional: Centralized, single source, for a single company
  - Blockchain: Distributed, multiple nodes, for many companies

- **Key Benefits**
  - Increased security
  - Real-time visibility
  - Cost savings

- **Challenges**
  - Regulatory hurdles
  - Integration with existing systems

- **Potential Use Cases**
  - Supply chain management
  - Financial transactions
  - Identity verification

- **Conclusion**
  - The blockchain offers a transformative solution for accounting and auditing in the finance sector.
dundancy reduction and cost/time savings would be huge. Essentially blockchain provides an automatic capability to verify accounting transactions between multiple business partners while maintaining data privacy. Conceivably external audits could be fully automated, and thus, the role auditors would be significantly reduced and perhaps even completely eliminated. The Depository Trust and Clearing Corporation is already testing a blockchain distributed ledger in short term lending markets to reduce risk and allow financial firms to share information in real time. (Kiplinger [2])

CONCLUSION

Today “we are living in exponential times” (Fisch) – change keeps happening faster and faster. One day we are buying our movie DVD’s at Blockbuster, and it seems like the next day all the Blockbusters are gone and we’re all downloading from Netflix. One day we’re going to Borders for our books, and suddenly Borders is gone and we’re buying books on Amazon and the like.

Major changes in established business systems can take place very quickly in our times. Those business that are not prepared suffer irreparable damage. Similarly those in higher education should also be prepared for this upcoming major shift in business information systems, not just in the MIS field, but in accounting, banking, finance, economics, law, and beyond.

People across the world have been demanding more “transparency” in corporate and government dealings, and blockchain public ledgers can also satisfy this global need. Finally some relevant and interesting quotes in regard to blockchain’s future are:

“In 2016 we will see the first, limited applications of distributed-ledger technology to wholesale financial markets, based on private permissioned blockchains. And over the subsequent five to ten years we will see these evolve, improve, standardize and proliferate, until eventually they become the new norm” (Masters).

“In time, distributed ledgers will evolve well beyond the world of finance. The blockchain, or something similar, is sure to play a role in the Internet of Things” (Kiplinger), which many forecast to be the major new technology for the next decade.

“It would be wrong to conclude that the blockchain is no more than a fad. Although it will take a while for distributed ledgers to rule the world, they are an idea, to paraphrase Victor Hugo, that will be hard to resist.” (Economist Staff)

“Blockchain technology could become the seamless embedded economic layer the web has never had…and could become the next major disruptive technology and worldwide computing platform” (Swan).

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INTRODUCTION

For a majority of the world’s population, global healthcare is of little concern, but for those that are chronically ill, a cohesive healthcare structure would help ensure life saving drugs and technology. However, despite an increasingly interdependent and globalized society (Clinton, 2016), the 21st century has created, there is still a great need for a healthcare system that can bring the best drugs, doctors, technologies, pharmacies, and more into an accessible system. This also represents a strategic imperative for global organizations that are expanding overseas. Many qualified managers and students forego the opportunity to live, work and study overseas because of inadequate healthcare. This represents concerns at multiple levels including the individual, organization, and host country.

Beyond the necessary professional skills, and subsequent cultural adaptation of the expatriate, spouse and family requirements have been deemed critical regarding (1) sending the most qualified expatriate, and (2) the longer-term success of that manager (Adler and Gunderson, 2007). Similarly, from the perspective of international education, Kashlak and Jones (1996) proved that host country health and safety are highly significant factors in students’ decisions regarding where to study abroad.

This research is an initial attempt to provide both a theoretical and practical linkage between the sophistication of a country’s healthcare system and the strategic placement of the most qualified expatriates. It begins a future exploration and discussion by focusing on a case study regarding countries’ resources and abilities to treat various diseases that may limit international work or education experiences, the paper incorporates a case analysis of cystic fibrosis and relates it to comparative and competitive benefits at both the country-level and organizational-level perspectives.

THE GLOBAL HEALTH ENVIRONMENT AND CYSTIC FIBROSIS

The World Health Organization

In an attempt to promote an international health system, the United Nations established the World Health Organization (WHO) with the mission of attaining the highest level of health for all people. The WHO currently operates in within all of the 193 UN member states; however, their ability to execute all their principles depends on the countries government, the access to basic infrastructure, and the population’s access to healthcare. It is important

to understand that the WHO was created to establish an international standard of healthcare, but they do not pro-
vide the actual care; they believe that the “governments have a responsibility for the health of their peoples which
can be fulfilled only by the provisions of adequate health
and social measures.” The WHO focuses on evaluating
each country’s healthcare system, standardizing disease
definitions and treatment, and health education. It has
created the Global NHIA Data and Indicators Database
which, “provides internationally comparable numbers on
national health expenditures”; but they are often subject to
discrepancies due to differences in definitions, collect-
ion methods, and population coverage.

Although the WHO’s studies are trying to standardize
disease definition and protocol for diseases like Cystic
Fibrosis (CF), they have been unable to create a meaning-
ful impact. The reason that are affected by this disease and
many others like it, global healthcare is something that is
of the utmost importance, not only for those suffering in
countries where there is no healthcare available, but also
for those that are looking for new life saving treatments,
and a possible cure as well for organizations looking to
to expand and send strategically critical personnel overseas.

What is Cystic Fibrosis?

Cystic Fibrosis is a chronic disease caused by a recessive
mutation in which there is a, malfunctions in the pancreas,
intestines, and lungs. The mutations affect the production
of genetic mutation causes the chloride cell to malfunction,
causing thick and sticky secretions that can be found in
the pancreas, liver, and intestines of patients afflicted with the
disease. The American Lung Association recognizes CF, “to be the most common seri-
ous single gene disorder in most Caucasian populations.”
A study conducted by the American Lung Association finds that 1 in 2,500 Caucasians are born with CF,
and 1 in 31,500 Hispanics, 1 in 15,100 African Americans, and 1 in 31,000 to 1 in 100,000 Asian Ameri-
cans and Native Hawaiians. It is because CF does not
can be fully understood, the disease make “the predicted median age of survival for
a person with CF in their late 30s.” The abnormal secre-
tions cause the chloride cell to malfunction, creating thick and sticky secretions that can be found in
different organs that are most commonly
chronic disease causing, like CF, are at the most risk.

Global Healthcare, Expatriates and International Education: A Focus on Cystic Fibrosis
Kasey Seymour & Roger Kashlak

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treatment for CF patients includes, “airway clearance
protocols and medications to clear secretions from the
lungs, prevention and management of infections, and
proper nutrition.”

Many of the basic treatments are extremely expen-
sive, need to be created in specialized pharmacies,
and administered by medical professionals, and are therefore
difficult to access in countries that do not have adequate
healthcare services. But the lack of healthcare is not the
only thing that can impact the treatments available to pa-
tients; government agencies such as the FDA and other
similar agencies affect which drugs are approved for use.
In the United States the FDA is very strict when deciding
which drugs to allow in the market, and some of their de-
cisions have impact those struggling with the disease. Fur-
thermore, there is a significant variance among countries.
For instance, some drug agencies have allowed more potent
drug cocktails to be given to CF patients, which are a great help for those that have run out of any other options.

International and Country-Level Responses

In response to the lack of global healthcare to coordinate
the multiple aspects of CF care, the CF community cre-
ated Cystic Fibrosis Worldwide (CFW). CFW currently has 67 member countries, and their primary function is,
“to spread information about the disease among scientists,
medical professionals, caregivers, patients, and families
and to act as a platform for the international exchange of
information.” Because CF is a predominantly Europe-
"Health Care Challenges in Republic of Georgia"17

The WHO is working closely with Armenia to try and
rebuild their healthcare, but the system has experienced
great difficulties since the end of communism. According
to a new report from the WHO, since the end of communism, “the system has fragmented along par-
tially free-market lines and is today failing the majority of patients because the health-care system’s lack of resources for the disease.16 Like Armenia, the Republic of Georgia was a part of the Soviet Union, and after they
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2013, http://www.who.int

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countries will correspondingly enhance their respective comparative advantages, as the ultimate goal of a nation is to improve the standard of living of the citizens of a country through activities like trade, investment, production, and education (Waheeduzzaman and Ryan; 1996). Likewise, Porter (1990) suggests that appropriate factor conditions are a prerequisite for a nation’s competitiveness. Subsequently, an associated increase in investment and trade will lead to a future increase in both revenues and knowledge. This paper further suggests that health care and health systems must evolve and become a critical factor condition. Thus, both the competitive and comparative points of view, the following propositions are advanced:

Proposition 1: As the health care system of a host country develops, the degree of country-level attractiveness will increase.

Proposition 1a: As the health care system of a host country develops, the pool of qualified expatriates will increase.

Proposition 1b: As the health care system of a host country develops, the demand for study abroad in that country will increase.

Proposition 2: As the health care system of a host country develops, comparative advantage of that country will increase.

Proposition 2a: As the health care system of a host country develops, foreign direct investment will increase.

Proposition 2b: As the health care system of a host country develops, the flow of international students into that country will increase.

**COMPETITIVE AND COMPARATIVE ADVANTAGES OF HEALTH CARE**

To fight global diseases, such as CF as well as many others, there is a necessity to develop a set of standards that each country implements in order to get the best outcome for the patients. However, it is important to note that not every country can implement these standards in the same way; the different healthcare structures demand different implementation methods. Because there needs to be a global focus, yet locally different implementations, a globalization (Phatak, 2005) strategy for healthcare would ensure that all those affected by diseases around the world would get the care they need.

Beyond the social and humanity implications, there are also strategic implications for firms, universities and countries. At the firm-level, as health systems become more sophisticated in strategically-targeted countries, firms will have increased flexibility to staff in-country positions with the most qualified personnel. Previous under-developed health care systems that historically limited this flexibility would have limitations mitigated, allowing for the firm to (1) increase likelihood of success in the host country by optimizing expatriate placement, and (2) accrue long-term benefits of knowledge and growth once the expatriate was repatriated. Likewise, universities, competing with each other on the rigor and robustness of study abroad programs, would see added flexibility in overseas offerings, thus attracting a potential higher quality and greater number of applicants.

From the host country perspective, developing health care adequacies and beyond would attract for firm and university initiatives leading to an increase in firm-level investment, and university-level tuitions. Ultimately, the revenues, knowledge, and skills will enhance a country’s comparative advantage.

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INTRODUCTION
Entrepreneurship is a common dream in capitalistic economies around the world. Highly successful and highly visible entrepreneurs, including Elon Musk and Richard Branson, have inspired many others to leave behind the drudgery of their stable, corporate job, and create a new business that will provide freedom, as well as financial and personal fulfillment. The purpose of this research was two-fold: 1) literature needed to be updated to reflect today’s entrepreneur and the current economic state; and 2) to provide support to anyone interested in becoming an entrepreneur. This research offered knowledge from those that have successfully made the transition from a stable career to entrepreneurship through a grounded theory methodology. Researchers created a questionnaire to interview 21 participants, ranging in age from 33 to 68. Motivations for starting a business included organizational politics, lack of job satisfaction and/or opportunity, a drive to be creative, and the desire to put their particular knowledge and skills to a more productive use.

The consistent theme of these interviews and research demonstrated how dissatisfied workers are in corporate America. The lack of attention organizational leadership has a detrimental effect on its workers’ satisfaction. However, these influences provide the opportunity for people to leave and become entrepreneurs, where they might otherwise have stayed in an unhappy work environment. People today want satisfaction in their work, and if employees cannot find it with their current company, they will leave. The economic and corporate environments have forced many people to rethink their career paths.

MOTIVATIONS FOR ENTREPRENEURSHIP
Starting a business and making millions of dollars is not just the American dream, rather it is a dream that is common in capitalistic economies around the world. Fueled by the visions of Steve Jobs, Bill Gates, Mark Zuckerberg, and other highly successful entrepreneurs who started their businesses while still in college and ultimately made millions, many others envision creating a new business that give them freedom, as well as financial and personal fulfillment. Entrepreneurs have generally earned positive perceptions in the media and in state and local governments; bookstores are filled with new volumes on starting and running a business, and colleges and universities are experiencing significant growth in enrollments in their entrepreneurship programs. Entrepreneurship is seen positively both socially and culturally, as evidenced through the thousands of new businesses that are started each year. While this image of the entrepreneur, working away at a business he or she loves, is one that is both fascinating and frightening, few take the brave step and set out on their own. For all of the garage or dorm room entrepreneurs, there are equally as many famous, or infamous, individuals who have left their successful careers to chart their own paths. There is a particular fascination with the second career entrepreneurs who have left promising careers to start their own businesses. The term “second career” entrepreneur refers to individuals who were previously employed and who chose to leave their jobs and pursue a dream. It includes those accidental entrepreneurs, who began by moonlighting with a hobby or a skill that was in demand, and then the outside activities grew to the point where a greater focus was needed. These are individuals who did not intend to start a business, but found their products or services were in sufficient demand that a business de-

ABSTRACT
This research explored motivating factors for second career entrepreneurship. These second career participant entrepreneurs experienced push and pull factors for self-employment, supporting Shinnar and Young’s research (2008). Five common themes emerged from this study. All participants were tired of corporate politics and had experienced a lack of job satisfaction. Some participants began entrepreneurial ventures in the same industry they worked while others ventured into new industries, but all had creative or innovative spirits. Lastly, success was defined as having some form of freedom, happiness, and having a quality of life balance, which all participants stated they had achieved success.
Motivations for Entrepreneurship

Suzanne Minarcine & Cassandra Shaw

International Journal of the Academic Business World

Spanx was born in her spare bedroom, and the company Blakely could not afford to pay an attorney the $7,000
Sara Blakely was an office equipment salesperson who was successful second career entrepreneurs.
Stewart remains one of today’s most visible and highly successful second career entrepreneurs.
Lagasse’s television shows, product lines, and cookbooks. radio and television programs, and the rights to Emeril
art Living Omnimedia has product lines in Macy’s and
entrepreneurial venture, however, having previously established
much for him to handle. This was not his first entrepre-
renderer, however, having previously established
home. Her shrewd business sense, combined with a tal-
et for business, propelled Stewart from a Connecticut
on television, radio and in the form of cookbooks. Stew-
art Living Omnimedia has product lines in Macy’s and
Even after a prison sentence for insider trading, Martha Stewart remains one of today’s most visible and highly successful second career entrepreneurs.
Sara Blakely remains an office equipment salesperson who was
discovering, and she bought a book from Barnes and Noble and figured out how to do it herself.
Spanx was born in her spare bedroom, and the company has expanded to include a full line of undergarments and clothing for men and women. Spanx is a multi-million dollar company, solely owned by Blakely.
Michael Bloomberg was an investment banker who was fired when his company merged with Citigroup. He
formed his own company, Innovative Maker Systems, to provide high quality business information, with Merrill Lynch as its first customer. The company later changed its name to Bloomberg and Bloomberg is reportedly the most well-known person in the world (Forbes, 2013). Bloomberg stepped down as CEO of Bloomberg to enter politics, and served three terms as mayor of New York City. Since stepping down as CEO, Bloomberg has been generous in his philanthropic endeavors, but he has stated he intends to return to his company as CEO.

This research set out to explore the driving factors that lead successful individuals to leave established careers and potentially risk their life savings and livelihood to open a business. The four entrepreneurs highlighted were certainly successful, but given the perception of risk in
starting a new business, this move would not necessarily seem to be a rational one. At the same time, the entrepreneurs have seen their secure pensions disappear, as economic pressures have forced even large corporations to rethink their retiree benefits. The paternalistic attitudes and commit-
tments to employees previously offered by large corpora-
tions have diminished, as pension plans have disappeared
or been reformed. These issues, along with other factors,
have led some people to take control of their future and
start a business, even with the high probability of longer hours and less money. It would seem that money,
alone, would not be a significant factor in triggering an
individual to pursue an entrepreneurial venture as a sec-
ond career.
The term copreneur has been used to describe couples
(married or life partners) in business together, who chose to start or purchase a business, with one or both leaving their former jobs. The motivations for business and where both are involved in the day to day op-
erations of the business. Muske and Fitzgerald (2006) fur-
ther defined copreneurs as two people in marriage or mar-
triage-type relationships, with the spouse actively working in the business and acknowledged as an active part of the business. Muske and Fitzgerald noted that approximately 40% of family businesses involved copreneur,
and the copreneurs group typically employed other family members than other family businesses. There is little information available about copreneurs as a separate subgroup from family businesses.

According to the Small Business Administration (Nazar, 2013), there are about 8 million small businesses cur-
rently operating in the United States and about 22 mil-
lion people are self-employed. Small businesses employ over half of the workforce in the United States, and these
firms generate over 65% of the new jobs. While there are approximately 43,000 new businesses starting each month, the number for closures each month is even high-
er than that. While the numbers of new business starts seems staggering, so does the number of small business failures. Less than one-third of all new businesses survive for 10 years, with only about half surviving for five years. This would lead one to question why someone would be willing to accept this level of risk since the successful en-
trepreneurs are statistically a very small minority.

LITERATURE REVIEW

The purpose of this research was to explore the motivating forces that would drive individuals with stable careers or comfortable retirements to start a business. Given the un-
certainty and risk of new ventures, there would seem to be significant perceived rewards behind the decisions. Joskin (2012) discussed the risk-propensity of entrepreneurs within the context of Carland’s trichotomy of entrepre-
norial orientation. Carland and Carland (1997) noted that entrepreneurs, macroentrepreneurs, microentrepreneurs, and entrepreneurs. Carland defined macroentrepreneurs as risk-takers seeking self-actualiza-
tion, innovative and creative, and highly driven despite extreme wealth. Microentrepreneurs were more willing to accept debt and equity financing in order to grow their businesses rapidly. The microentrepreneurs included the smaller family businesses with only a few employees, and the entrepreneurs could be described as an attempt to live, rather than to live. They were also typically much more casual about their businesses. The entrepre-
nor’s willingness to take risks and their ability to be innovative and take responsibility for business failures were key components in the study. The major findings were that the study would likely classify as microentrepreneurs or entrepreneurs.

Arora (2014) examined the work motivation of 60 en-
trepreneurs, in terms of intrinsic and extrinsic rewards, the level of job satisfaction, and the extent to which fulfillment using the Work Motivation Questionnaire, designed by K. G. Agrawal (1988). The study was de-
scriptive and also looked at role stress. The overall result of the study was that the entrepreneurs were motivated high among entrepreneurs, and their dependency on the job and their status as a business owner made them work harder. The entrepreneurs appeared to feel positive about their ability to work under stress, but also identified the need for additional training to help them be successful in their endeavors.

Berthold and Neumann (2008) compared the motiva-
tions of entrepreneurs with those of employed managers, with the risk of uncertainty being one of the distinguishing factors in the work of the two categories. Given that
both needed to satisfy the needs of the consumers and both were generally concerned with the growth of the organization, there were similarities in tasks. Self-fulfill-
ment was a motivating factor in job satisfaction for both groups, but the ability to be innovative and take responsi-
ability for the success of the organization was higher for the entrepreneurs. Stewart and Ross (2007) further identified successful entrepreneurs as those with a clear sense of achievement motivation, and found that entrepreneurs preferred a more flexible environment with more auton-
omy.

Rae (2005) identified the need for entrepreneurial training later in life, as a mechanism to expand economic opportu-
nities and to extend the working years of older individu-
als with entrepreneurial interests. Similarly, Holmes and Cartwright (1994) found that people between the ages of 35 and 55 had a high level of dissatisfaction, yet were at the peak of their career potential. At the older end of the age range, the “baby boomer” generation has already experi-
enced multiple changes, in particular in terms of technol-
y and communications, and has generally been quick to embrace the changes. Rae found that while these individu-
als had significant bodies of business knowledge, much of this knowledge needed to be unlearned and replaced with more of entrepreneurial skills and thought processes.

The rigidity and predictability commonly found in larger organizations did not accommodate flexibility and a more entrepreneurial approach, leading to career dissatisfaction. Aldrich and Yang (2013) postulated that second career entre-
preneurs were more successful when they had established positive habits and routines.

Mallon and Cohen (2001) found that women moved to part-time employment, at both the micro and macrolevels, to the corporate world. Similar findings were discovered by Hughes (2003), who found that constraints and perceived
limitations on women’s careers were common drivers in type relations to decide to start business. Women were found to prefer the risk of self-employment to the issues they felt were unresolved, and the lack of opportunity. Mujaj and Aggarwal (2003) noted that while there were entrepreneurial skills involved in career change decisions, and found that personal intention was a stronger motivating factor than social net-
works, indicating that the decision for entrepreneurship was an individual one, rather than externally mediated.

Weintraub (1980) discussed the adjustment challenges of second-career entrepreneurs. Despite a wealth of ex-
perience and knowledge in the business world, the adjust-
ment to entrepreneurship and its demands were often too great. Weintraub also observed that when these people move from a small firm to a larger organization, and the uncertainty and instability of self-employment, as well as the turbulence, was sometimes too great. For former ex-
Motivations for Entrepreneurship

Suzanne Minarcine & Cassandra Shaw

Motivations for Entrepreneurship

Motivations for entrepreneurship differ in the start-up phase where actions result in deliberate self-directed learning, while the pull factors for starting business are self-fulfillment and gaining experience.

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caterer, marketer/advertiser, school counselor, car dealer, insurance executive, airline pilot, waiter, financial advisor, and delivery courier, all working for someone else. After becoming entrepreneurs, the careers included hair salon owner, international vintner, realtor, innkeeper, restaurateur, spa owner, landscape designer, instructional designer, marketing/advertisting firm, engineer and architecture. In the past, these entrepreneurs had been in an organization where they did not feel valued. Some participants stated they were made suggestions to management but those suggestions would go unnoticed, not taken seriously, or management would look at them as if to say, “Who are you to make this suggestion?” One of the participants was forced to retire while another participant was not rehired to the state Senate. One female participant felt “forced” to leave for putting family first and was told she would not amount to anything. This is right in line with Mallon and Cohen’s findings (2003) that women moved to self-employment because of corporate frustration.

While Shinnar and Young’s (2008) study focused on the Hispanic immigrant population, it has been surmised here that this study supported the push and pulling motivating factors for self-employment. All participants experienced a negative push factor, as evidenced by the participants: “discrimination,” “downward mobility,” “male dominance of reported research and leadership positions,” “own- er of company wasn’t growing and business was failing,” “corporate politics and harassment,” “corporate restructuring,” and “I craved management responsibility but did not get it.” These push factors made the entrepreneurs feel as though they were not valued. They believed job opportunities or promotions were scarce or nonexistent, and there was a limit to wage potential. Organizational poli- tics were very difficult for these entrepreneurs to handle.

Participants wanted to take charge of their own business, be their own boss, control their own career and destiny, and take charge of their happiness. Now, these participants were all happy, though they felt stressed as a different level. The participants agreed their stress was manageable, that they now have job satisfaction, and they thoroughly enjoy being entrepreneurs. No longer do they have the fear of losing their job or surviving in a disruptive marketplace.

Theme 1 – Organizational Politics

All participants stated they had enough of corporate life and politics and felt there must be something better in life. They did not want to be “tied” to an organization where they did not feel valued. Some participants stated they would make suggestions to management but those suggestions would go unnoticed, not taken seriously, or management would look at them as if to say, “Who are you to make this suggestion?” One of the participants was forced to retire while another participant was not rehired to the state Senate. One female participant felt “forced” to leave for putting family first and was told she would not amount to anything. This is right in line with Mallon and Cohen’s findings (2003) that women moved to self-employment because of corporate frustration. The entrepreneurs also had an internal desire to start a business, be their own boss, control their own career and destiny, and take charge of their happiness. Now, these participants were all happy, though they felt stressed as a different level. The participants agreed their stress was manageable, that they now have job satisfaction, and they thoroughly enjoy being entrepreneurs. No longer do they have the fear of losing their job or surviving in a disruptive marketplace.

Theme 2 – Lack of Job Satisfaction

A glaring theme from all participants was the lack of job satisfaction with their former jobs before becoming an entrepreneur. Participants in this study ranged in age from 33 to 68; those who were not in retirement but working for companies were highly dissatisfied with their job and/or their environments. These participants were at the peak of their careers, yet experienced job dissatisfaction, support- ed by Holmes and Cartwright’s research findings (1994).

Job dissatisfaction has been an unfortunate by-product of corporate culture for decades. As the years progress, the generations vary. Corporate loyalty has not been as preva- lent as it once was in the 1950’s by either side – the com- pany or the employee. Companies have changed the pay structure, benefits, eliminated pensions, and eliminated seniority. This has spurred the change in loyalty and job satisfaction in generations. As the researched entrepre- neurs stated, they could not foresee themselves not working with one company until retirement age as their parents or grandparents did. Companies today are not the same as they were with their parents’ generation; corporate politics have heightened and as a result has provided moti- vation for workers to leave and become entrepreneurs. For some participants, the buildup of corporate politics over time was the “final straw” for the decision to leave and become an entrepreneur. Others who experienced a job loss of some form did not want to re-enter the corpo- rate world because of these factors and made the decision to become an entrepreneur. The rigidity and inflexibility of the companies, in part, led to job dissatisfaction of the participants.

Theme 3 – Creative or Innovative Spirit

Most participants felt as if they were “always into some- thing,” meaning they had always been creative or innova- tive in some form, from the time they were young chil- dren into adulthood. For most participants, their current business venture was not their first. All participants de- scribed themselves as having creative or innovative spirits, whether it was recognized early as young children or later in life as adults. While a few entrepreneurs had parents that were entrepreneurial, most participants faced this as a second, new career but the internal motivation to move was there for both. This result was consistent to Rigby, Mueller, Partridge, & Kriel (2008), who found that most entre- preneurs had at least one parent that was an entrepre- neur. Having family and friends to support that spirit was “crucial” for trying this new venture. The decision to move into entrepreneurship can vary by person, context, and support from family and friends. All participants had some level of family and friends’ support. They were helped during transi- tion and to keep the creative and innovative spirit alive.

Most tried some form of entrepreneurial spirit in their younger years but did not recognize it as being an entre- preneur. Today, when they reflected on yesterday, they saw the progression of that spirit. Being a young entrepreneur did not mean taking a high level risk or trying something huge. Participants in this study noted some simple yet ef- fective innovative ventures, such as burningly working a discount and reselling to friends, becoming a disc jockey to meet gigs, recreating photographer backdrops, and painting murals. These would be considered as moon- lighting jobs as adults, but as children and young teens, there was an exercise in the creative and innovative spirit while at the same time being fun and learning the basics of an entrepreneurial start-up. These same lessons would allow them through life to the entrepreneurial stage to- day as an adult. Examples that helped to shape their career today were:

1. Participant 11, an artist, as a young adult innovat- ed a way to paint backgrounds for photographers taking photos of people. The problem this entrepre- neur was solving was that the backgrounds were a major expense for the photographer. The solution was cost effective for participant 11 to recreate the backgrounds with a savings at a frac- tion of the cost to the photographer, while both still made a profit.

2. Participant 16 had been working at a local hair salon and had the passion for the business but had a “burning” for more responsibility, “craving” it. He felt he was not given the opportunities he needed to work both personally and profes- sionally. Not being able to have that “burning” met for working by someone else, participant 16 moved to another hair salon but still that need was not met. Participant 16 decided it was time to open a business – a hair salon; that “burning need” has been met.

Theme 4 – Knowledge and Training

All participants had some knowledge of either owning their own business or knowledge of their industry but needed additional knowledge about being an entrepre- neur. They had the fear of losing their job (1995), these entrepreneurs identified a need for entrepreneurial training and used their network for connections, researched and planned the transition into a new career. Supporting Weinachts’ (1990) re- search, some participants carefully planned start- ing their career while other participants described their process as “very quick” or “I thought about it three and a half years.” Some were better when you took the time to recognize the process and take the time for those moving into a
new career. There was some level of entrepreneurial training for all participants.

One participant stated that she and her business partner, who had previously worked together, decided to leave and start their own company in the same field. However, they had no experience in a start-up of this scale and sought help from their bank loan officer, who provided valuable advice. "Don’t leave your current job until you have established your new business." It took nine months of careful planning before they were ready to leave. Another entrepreneur (with a future partner) took about six months to leave the company after solid planning. Because they had been trying to help their current employer grow and brought in a business coach, and that business owner was not being interested, they used that knowledge to help make the decision to leave. Another entrepreneur researched and conducted informational interviews as part of the entrepreneurial training process and stated, "I couldn’t have done it [made the transition] without those." Most entrepreneurs have evolved through the years of self-employment. The entrepreneurial training is ongoing and should never end. When asked if they would do this all over again, most said, "Yes!" Others stated, "Well, I’m not sure, but probably yes." It is hard work to make the transition, to create customers, to build relationships, etc. but well worth the return of success.

**Theme 5 – Success**

Success can have different meanings to different people. All entrepreneurs in this study defined it as some form of having the freedom of choice with money, security, or being in charge of their own destiny, happiness, and having a quality of life balance. To many people, not just entrepreneurs, success means having interesting work, feeling valued, feeling excited about something, and feeling satisfied.

All entrepreneurs interviewed for this study have achieved that success. To them, money was only a part of success – money is needed to live – but it was not the over-arching factor of success.

No entrepreneurs defined success as being enormously wealthy. To them, success meant living a life where they were in control and living comfortably with money or being financially secure. Longevity for the participants meant "having enough money to do what I want, and to make a difference." Others described success as “living well, doing what I want to do, not having to be careful [financially]." Having quality of life or work-life balance was a response that occurred repeatedly during the interviews. Many started the business or venture with that in mind and being able to "maintain and hang on to a quality of life that [I] started the business for" meant they were successful. One entrepreneur defined success quiteeloquent-

**CONCLUSION AND IMPLICATIONS**

Research has found that entrepreneurs are likely to have at least one parent who was an entrepreneur (Rigby, Mueller, Partridge, & Kriel, 2008). This was different from what was found in this study. It is possible that parents who are entrepreneurs have set the stage for their children; they become role models to the children. Is entrepreneurship hereditary, innate, or both? These children are growing up in a household that promotes entrepreneurship, promotes innovation and creation, and supports the ideas the children have. Children are gaining invaluable entrepreneurial training early in life, which may help to promote confidence and success.

The economic and corporate environments have forced many people to rethink their career paths. The entrepreneurs who participated in this study chose to take advantage of both. They did not want to return to the corporate polices that had plagued them during their first career; they knew another company would likely have the same environment. Participants wanted something better for themselves and their families, especially those with children. All were realistic and optimistic. All participants of this study were internally motivated to become entrepreneurs. They felt a push, whether a loss of job, job dissatisfaction, or being forced out, to do something better, to do something different, and they also felt a pull. Their life needed to change for the positive and that internal drive led them to make the decision to leave a stable career to start their own venture. For these participants, entrepreneurship was the clear solution.

**REFERENCES**


**NEW FORMATTER**

**APPENDIX A**

**Demographic Questions**

1. What is your age?
2. What is your sex?
3. What is your marital status?
4. Do you have children? How many?

**Interview Questions**

1. What were you doing before?
2. What are you doing now?
3. Is this your first transition to be an entrepreneur?
   a. If yes: What drove you to leave your prior career and become an entrepreneur?
   b. If no: What motivates you to keep pursuing an entrepreneurial career?
4. What were the attractors/distractors from your decision?
5. Were your friends/family supportive of your transition to become an entrepreneur? Please explain how they were/were not supportive.
6. What motivates you to be an entrepreneur?
7. Are you successful? How do you define success?
8. Were you the single “bread winner?” How did your economic/financial situation influence your decision to leave your career and become an entrepreneur?
9. Did your income reduce, stay the same, or increase after becoming an entrepreneur?
   a. By what percent? (if reduced or increased)
10. How has your lifestyle changed?
INSTRUCTOR’S NOTES

Students confronted with research projects often find themselves adrift. For many, the most difficult aspect of the research project is starting. It is difficult for students to know what they are really looking for.

The benefit of this project is that it provides students with a clear set of questions to guide their search. Additionally, the project can create cooperative linkages among students, faculty and information literacy specialists at the college or university library. Finally, the role-play component of the assignment places the student in the position of researcher, advisor and decision maker. Critical thinking is required as students make recommendations to a fictitious corporation based on their interdisciplinary research.

The LIFE Project case encourages students to think along interdisciplinary lines by providing engagement with different streams of peer-reviewed scholarly articles. This helps wean students from dependence on non-scholarly sources such as those found in traditional Internet searches, which present reliability concerns (Calkins & Kelley, 2007). The goal is to bring about a more mature and robust use of scholarly resources and to help students transcend the discipline of their major in preparation for functioning in a world of complex, interdependent systems (Trewella 2009). Nevertheless, instructors face a challenge in finding methods to move scholarly sources from the realm of suggestion to requirement. Robinson and Schlegl (2004) found that effective collaboration with information literacy specialists at university libraries, the formulation of projects with the formal requirement of scholarly sources, and the inclusion of penalties for failing to use scholarly sources resulted in significant increases in the use of required source type.

After the introduction of the assignment, a library information literacy specialist should be invited to train the students in the use of library databases and the value of scholarly sources. Following this, students should be reminded of the assignment requirements and penalties for failure to use scholarly sources.

Having read the case and consulted the literature, students are to write a paper that addresses case questions covering two main areas: 1) a comparative look at the scope of the literacy problem in the chosen demographic and possible interventions, and 2) the types and profitability impact of social responsibility projects on comparably-sized businesses. Finally, students are asked to make an informed recommendation about the direction and feasibility of the proposed project.
The LIFE Project: A Case of Social Responsibility
Donald J. Wood & Lynette I. Wood

The LIFE Project is a case of social responsibility. The completed assignment is graded using Turnitin.com. This is a great resource for APA and other style instruction. The Purdue Owl website is a great resource for APA and other style instruction. https://owl.english.purdue.edu/owl/resource/560/01/).

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THE PROJECT

With this in mind, you have been asked to serve as a researcher for Jonus Company’s Community Development Team (CDT). Under the direction of Lisa Granger, VP for Community Development, this team is tasked with developing a social responsibility project that addresses a passionate concern of Mr. Fortrel: literacy deficits among young African-American males, nationwide.

You will assist with creating the LIFE project: Literacy Is For Everyone. To initiate this program, the CDT needs to conduct research to understand the literacy problem and to determine the appropriate intervention strategies. The following is a list of critical information that must be ascertained to develop an effective program:

• Literacy
  - How big is the literacy problem facing African-American males? How does it compare to other major groups in the U.S.?
  - What are some of the contributing factors to the literacy gap between the target group and other groups in society?
  - Which interventions or methods have been proposed to resolve the crisis?

Social Responsibility Projects

• Who are Jonus Company’s chief competitors?
  - What other companies are comparable in size and net income?
  - What are some of the more successful social responsibility projects initiated by these companies?
  - How have social responsibility projects affected profitability of large companies?
  - Are there any risks associated with such programs?
  - Based on your research, how can a retailer with little experience in the field of education make a difference in addressing the literacy problem?

Your research is critical to making this project a reality.

The LIFE Project: A Case of Social Responsibility
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REFERENCES

APPENDIX

Student Feedback
Following is a sample of comments received from students who completed the assignment:

“Putting this project together was not as simple as I thought it would be. To complete this project successfully, intensive research and forward planning is definitely required. It was a great project overall and it forced critical thinking, which is an excellent thing.”

“I thoroughly enjoyed working on this project. . . . It opened my eyes to see that projects are not given just to be a pain but to help educate in the process. My only concern was developing a starting point and having to work two different topics into one paper. Once I found the starting place, it began to flow together with ease.”

“Required us as students to think outside of the box to understand what the assignment was. At certain points I would find myself at a dead end because the information I would search would not be sufficient. I had to go to the library a couple times and once I had a little push I was able to complete the assignment.”
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The aim of Academic Business World is to promote inclusiveness in research by offering a forum for the discussion of research in early stages as well as research that may differ from ‘traditional’ paradigms. We wish our conferences to have a reputation for providing a peer-reviewed venue that is open to the full range of researchers in business as well as reference disciplines within the social sciences.

Business Disciplines

We encourage the submission of manuscripts, presentation outlines, and abstracts pertaining to any business or related discipline topic. We believe that all disciplines are interrelated and that looking at our disciplines and how they relate to each other is preferable to focusing only on our individual ‘silos of knowledge’. The ideal presentation would cross discipline borders so as to be more relevant than a topic only of interest to a small subset of a single discipline. Of course, single domain topics are needed as well.

International Conference on Learning and Administration in Higher Education (ICLAHE.org)

All too often learning takes a back seat to discipline related research. The International Conference on Learning and Administration in Higher Education seeks to focus exclusively on all aspects of learning and administration in higher education. We wish to bring together, a wide variety of individuals from all countries and all disciplines, for the purpose of exchanging experiences, ideas, and research findings in the processes involved in learning and administration in the academic environment of higher education.

We encourage the submission of manuscripts, presentation outlines, and abstracts in either of the following areas:

Learning

We encourage the submission of manuscripts pertaining to pedagogical topics. We believe that much of the learning process is not discipline specific and that we can all benefit from looking at research and practices outside our own discipline. The ideal submission would take a general focus on learning rather than a discipline-specific perspective. For example, instead of focusing on “Motivating Students in Group Projects in Marketing Management”, you might broaden the perspective to “Motivating Students in Group Projects in Upper Division Courses” or simply “Motivating Students in Group Projects”. The objective here is to share your work with the larger audience.

Academic Administration

We encourage the submission of manuscripts pertaining to the administration of academic units in colleges and universities. We believe that many of the challenges facing academic departments are not discipline specific and that learning how different departments address these challenges will be beneficial. The ideal paper would provide information that many administrators would find useful, regardless of their own disciplines.