# DARE TO DREAM:

# ENHANCING BUSINESS SCHOOL PERFORMANCE THROUGH A COLLABORATIVE, SYSTEMATIC AND INTEGRATED RESEARCH PROGRAM.

# REPORT PREPARED FOR THE BUSINESS SCHOOL RESEARCH NETWORK



Institute for Innovation and Entrepreneurship



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#### **PURPOSE**

A group of 23 researchers from 16 business schools established in 2014 the *Business School Research Network* (BSRN). The collaborative research targets the establishment of metrics of performance indicators of business schools, the *business school scorecard*. The main goal is to propose methodologically solid assessments of the impact of business schools on students, practitioner, scholars and communities. This report is the result of the seminal work of the research team conducted throughout 2014, which culminated on the BSRN colloquium, when researchers from 16 business schools, school administrators, students, members of the business and broad community conveyed to Calgary and produced the work that follows.

- 1. Scope
  - a. Measuring What for Whom?
- 2. Methods
- 3. Phase 1: The business school scorecard
- 4. Disaggregating the components of business school value
  - a. Business school input variables
  - b. Business school process variables
  - c. Business school outcome variables
- 5. Defining business school activities
  - a. Learning and teaching activities
  - b. Intellectual contributions
  - c. Service activities
- 6. A stakeholder view of value
  - a. Student stakeholders
  - b. Practitioners stakeholders
  - c. Community stakeholders
  - d. Scholar stakeholders
- 7. Pilot instrumentation development
- 8. From theory to the real world
- 9. Conclusion
- 10. Appendix
  - a. Profile of working group
  - b. Student outcome measures inventory
  - c. Practitioner outcome measures inventory
  - d. Community outcome measures inventory
  - e. Scholarly outcome measures inventory
  - f. Proposed scorecard instruments
    - i. Undergraduate student survey template
    - ii. Graduate student survey template
    - iii. Alumni survey template
    - iv. Practitioner survey template
    - v. Community stakeholder survey
  - g. Key Definitions

## 11. References

#### ABSTRACT

Business Schools, while ubiquitous in institutions of higher education, educating a significant proportion of graduates, face an unprecedented challenge to their legitimacy and suffer from the fragmentation of performance measures. Many measures are conferred by stakeholders disconnected from governments and policy makers responsible for funding higher education. This has a profound influence on both the management of business schools and the capacity of scholars to conduct rigorous, evidence-based research on performance in ways relevant to a wider spectrum of stakeholders. To confront this challenge, a multi-stakeholder working group, the Business School Research Network (BSRN) was established to facilitate collaborative interinstitutional research focused at studying the management and practice of business schools.<sup>1</sup> The BSRN defined a multi-phase, multi-year integrated research plan. The first phase, and the focus of this paper, identifies the most relevant outcome measures of business schools. The work began with extant assessments and identified of a new set of outcome measures, leading to the development of research instruments and associated data collection methods that will soon proceed to an empirical pilot test phase. The final instrumentation will represent a holistic and integrated business school scorecard that will become the foundation for all future research of the BSRN.

<sup>&</sup>lt;sup>1</sup> To protect the integrity of the blind review process the name of the working group is concealed. If this paper is accepted, it is our intention to use the working group name in this manuscript.

#### **SCOPE**

#### Measuring What and for Whom?

For decades, many in the business of business schools have claimed that our industry is at a crossroads (Ghoshal, 2005, Hambrick, 1994; Holland, 2009; Koontz, 1961). The Global Foundation for Management Education (GFME, 2008) estimates that there are as many as 26 million business students attending over 8,000 business schools, representing an annual expenditure on university-level business education of up to US \$30 billion (GFME, 2008). In the United States and Canada, an estimated 21% of all undergraduate university students study business today, increasing from 14% in 1960 (Statistics Canada, 2009; Clarke, 2013; NCES, 2013), and business degrees remain the most popular amongst Canadian post-secondary students (Statistics Canada, 2011). Not surprisingly, 92% of all postsecondary institutions in the United States now offer business education (Pfeffer & Fong, 2002).

However, globalization and rapid improvements in technology are transforming, indeed challenging the delivery models of post-secondary education and the return on investments in education by students. Analysts and scholars question the relevance, impact and ultimately the legitimacy of business schools today (e.g. AACSB, 2013; Datar, Garvin & Cullen, 2008; Ghoshal, 2005; Holland, 2009; Koontz, 1981; Mintzberg & Gosling, 2002; Pfeffer & Fong, 2004). These challenges have only increased since the Global Financial Crisis of 2008, in which graduates of business schools played a prominent role (Di Meglio, 2009; Holland, 2009). Some argue there is little empirical evidence that the current business school focus on academic scholarship impacts business practice (Pfeffer & Fong, 2004; Bartunek & Rynes, 2010); others question whether influencing business practice should even be considered a goal of business schools (Keleman & Bansal, 2002). In a drive to demonstrate legitimacy and relevance, there has

been a significant expansion of scholarly research (e.g. Bartunek & Rynes, 2010; Rubin & Martell, 2009), accreditation guidelines (e.g. AACSB, 2013; EQUIS, 2014), media ranking systems (e.g. Financial Times, 2012; Business Week, 2013) and interest group research (e.g. Aspen Institute, 2014; GFME, 2013) that focus on empirically measuring the outcome and performance of business schools. However, this proliferation of conflicting measures limits the ability of scholars to conduct rigorous evidence-based research focused on understanding the complex variables that predict business school performance (Adler & Harzing, 2009; Aguinis Aguinis, Shapiro, Antonacopoulou, & Cummings; Clinebell & Clinebell, 2008; Ghoshal, 2005; Gioia & Corley, 2002). The result, it has been argued (Adler & Harzing, 2009; Mintzberg & Gosling, 2002; Pfeffer & Fong, 2004), is that the management of business schools has become highly politicized and focused less on enhancing actual performance and more on enhancing perceived performance as defined by the priorities of external ranking systems conducted primarily by the popular business press and aimed at elite institutions.

In summary, this study is a response to Hambrick's (1994: 15) address to the Academy over two decades ago: "It's been said that there are three kinds of people: those who make things happen, those who watch things happen, and those who wonder what happened. To a great extent, the role of a scholar is in the middle category: to observe, analyze, critique, and disseminate". Yet, we contend that the fragmentation and politicization of performance measures over the past two decades has created a significant barrier to observing, analyzing and critiquing business school performance across the spectrum of institutions that deliver business school education. In response, the goal of this study is the development of an holistic Business School Scorecard (hereafter BSSC) and associated instrumentation that will allow researchers to rigorously analyze the performance of business schools with diverse missions and in multiple

regulatory and policy environments. The paper will begin by reviewing the underlying methodology used in our study. Following this, we will provide an overview of the conceptual BSSC and pilot instrumentation. Next, we review the second phase of the research which will include the pilot testing of the proposed scorecard instrumentation.

#### **METHODS**

#### Step 1: The Establishment of a Multi-Stakeholder Working Group

The development of integrated and consistent measures across such diverse contexts is inherently complex. Fortunately, we can draw on similar efforts from related disciplines. Researchers in cross-cultural leadership were faced with a similar challenge over two decades ago. In 1991, confronted with increasingly complex and dynamic research questions which constrained the ability to develop cohesive theory that could guide both scholars and practitioners, researchers established a project called Global Leadership and Organizational Behavior Effectiveness Research (hereafter GLOBE). GLOBE is a multi-phase, multi-method project that includes one hundred and fifty researchers in 62 countries focused at developing "an empirically based theory to describe, understand, and predict the impact of specific cultural variables on leadership and organisational processes and the effectiveness of these processes" (House, Javidan & Dorfman, 2001: 492). Within a decade of its establishment, GLOBE researchers had made over 100 presentations at professional meetings and published over 30 papers and book chapters (House et al.2001: 492). In this project, we are embarking on a similar path in developing the BSSC that can enable business schools to reclaim lost relevance and legitimacy.

A multi-stakeholder working group (hereafter, the BSRN) was established to facilitate collaborative research focused on studying business schools. The initial BSRN is composed of

23 researchers from 16 North American business schools. In addition, the BSRN was designed to include representatives from four stakeholder groups: (a) business school faculty and university administration; (b) practicing managers; (c) policymakers; and (d) students/alumni. The academic members were stratified to include representation from schools with diverse missions including medical-doctoral universities, comprehensive universities, undergraduate universities, polytechnics, career and technical colleges, and distant learning universities. Refer to Table 1 for background on the members of the BSRN. Figure 1 provides an overview of the BSRN project governance.

Insert Figure 1 & Table 1 about here

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The first deliverable in the development of the BSSC was the identification and alignment of key outcome measures and associated data collection methods. Once finalized, these outcome measures are designed to become the dependent variable in future collaborative research. The BSRN lies in not only the development of the measures themselves, but also extends to become a forum to support for stimulating ongoing debate: "It is the measurement process more than the measurements themselves that shape the institution and guide its members' activities. The right success measures provoke the right kinds of conversations. Ultimately it is those conversations that keep the university evolving adaptively" (Christensen & Eyring, 2011: 395). First, the BSRN defined the following five principles that would guide future collaboration:

1. The BSSC unit of analysis is the business school, however the data must allow the ability to examine the variance between disciplines and programs within universities.

- 2. The BSSC must measure the probable causal impact of business school activities and interventions on business school stakeholders. Supporting qualitative methods will be leveraged to provide context and depth to the quantitative data.
- 3. The BSSC is focused at enhancing overall business school performance and will <u>not</u> be used as a tool for the ranking participating schools.
- 4. The weighting or priority of BSSC measures will be defined by the participating institution and ensure alignment to their mission.
- 5. To ensure validity, all participating business schools must consistently collect the scorecard measures.

The following section will review the next step in the development of the BSSC.

#### **Step 2: An Integrated Literature Review**

Based on the GLOBE research model, the BSRN conducted a literature review to identify the breadth of contributions that has previously attempted to define business school outcomes. Cooper (1982: 292) stated that the core objective of an "integrative review is to summarize the accumulated state of knowledge concerning the relation(s) of interest and to highlight important issues that research has left unresolved". The scope of our review analyzed scholarly articles, media ranking systems and accreditation guidelines associated with business schools outcomes published from 2000 - 2014. We used Google Scholar<sup>2</sup> and a large number of keyword search terms in the title, abstract, and keyword list to gather relevant scholarly works associated with the definition and measurement of business school outcomes (Xiao & Nicholson, 2012).

This search identified a total of 187 sources including 160 scholarly articles, nine ranking systems, and three accreditation guidelines. Following this, a citation count analysis was

 $<sup>^2</sup>$  Adler and Harzing (2009) suggested that Google Scholar offers a broader reach and is a more comprehensive reflection of scholarly work when compared with more proprietary and thereby limited scholarly search tools.

conducted to count the number of times the works have been cited in scholarly publications. The frequency with which others use a field's published works demonstrates their influence on the community (Podsakoff, MacKenzie, Podsakoff & Bachrach, 2008). Scholarly influence in the field of management: A bibliometric analysis of the determinants of university and author impact in management literature in the past quarter century. Journal of Management, 34(4), 641-720.).<sup>3</sup> Based on the importance of defining a concise data-coding scheme and associated data analysis methods to maximize validity (Pless, Maak & Stahl, 2011). A consistent *a priori* coding model was developed based on four criteria: (a) the methodology employed by the researchers (including data collection process); (b) the population of interest and associated sample; (c) the empirical measures included in the study; (d) the business school activities that were the target of the outcome measures. After the findings from the reviews were collated and synthesized, any differences of opinion between two authors were then discussed until an agreement was reached and adjustments were made accordingly. The outcome of this literature review became the intellectual foundation for the BSRN.

#### Step 3: Multi-Stakeholder Research Conference

Following the literature review phase, the BSRN held a two-day research conference in October, 2014 to develop a collective understanding of the project and to define a project plan. The results of the integrated literature review were shared with participants prior to the meeting. Participants were given a selection of the more influential readings in advance but were requested to use the literature review as support rather than as a constraint. In addition, a survey of all participants was conducted in advance to support the development of the agenda and identify areas of alignment and disagreement. At the conference, participants were broken into

<sup>&</sup>lt;sup>3</sup> Non-scholarly sources such as media ranking systems and accreditation guidelines were excluded from the citation analysis.

four working groups each focused on a major stakeholder group (students, practitioners, community and scholars). The membership of the stakeholder working groups was stratified to ensure a diverse representation of business school missions and stakeholders. We now review the output of this process.

#### RESULTS

#### **Defining the Scope of Business School Activities**

Following the identification of input, process and output variables, researchers focused on defining the scope of activities of a business school. Researchers, policy makers, administrators and accreditation bodies have long recognized that business schools have diverse missions and mandates (AACSB, 2013; Palmer & Short, 2008). However, the BSRN identified that defining the concise scope of variables as an essential prerequisite to developing research instrumentation (House, Javidan & Dorfman, 2002). The BSRN defined business school activities as all interventions of business schools at both an individual-level (e.g. faculty, student, administrators, and staff) and group-level (e.g. business school, program, student organization). The BSRN broadly clustered these activities into three categories: learning and teaching activities, intellectual contributions and service activities (AACSB, 2013; Bennis & O'Toole, 2005; Boyle, 2004). We will now consider the scope of each.

#### Learning and teaching activities

Management education is an obvious mandate of business schools (Bennis & O'Toole, 2005; Boyle, 2004; AACSB, 2013). It is the basis for funding of public universities and plays an important role in business schools. The learning and teaching activities of business schools include all dimensions from curriculum design (including content, pedagogies and structures), operationalization (process for implementation of curriculum) and learning assurance processes

that confirm the effectiveness of educational activities relative to defined learning goals of a program (AACSB, 2013).

More specifically, management scholars (McEvoy et al., 2013) and accreditation bodies (AACSB, 2013; EQUIS, 2014) contend that management education includes two dimensions: the transmission of conceptual knowledge and the development of skills that aid in knowledge construction. Conceptual knowledge is the foundation of any discipline and possesses a protracted lifecycle that is deeply rooted and very stable (Schlee & Harich, 2010; Davis, Misri, & Van Auken; 2002). In contrast, skills are competencies that are specific to the performance of a task (McEvoy et al., 2005). Skills can be further broken into two categories: (a) meta-skills, such as oral communication and critical thinking (Finch, Nadeau & O'Reilly, 2013), and (b) technical skills, such as the ability complete a balance sheet (Dunne & Martin, 2006). Knowledge construction takes place at the intersection of the transmission of conceptual knowledge and the development of skills, where students learn by doing, solving scenario-based problems and testing their skills on problems faced in practice.

#### Intellectual contributions

Intellectual contributions are original forms of scholarship based on accepted principles of research that advance theory, practice and/or teaching (AACSB, 2013). These intellectual contributions are validated by either academic or professional review processes (AACSB, 2013; Aguinis et al., 2014). The AACSB (2013) identifies three distinct types of intellectual contributions (a) discovery scholarship that focuses on contributing to theory, knowledge and/ or practice; (b) applied scholarship that focuses on the integration or interpretation of existing knowledge normally intended to impact practice; and (c) teaching and learning scholarship that focuses on advancing the teaching and methods of learning.

#### Service activities

The third explicit activity of business schools is associated with the service of faculty, staff and students (Mitchell, 2007). This service may be internally oriented, such as participating in committees associated with curriculum design or governance; or it may include service that is externally oriented, such as being actively engaged in support of practitioners or communities; for example, consultation provided without charge to charities by students and faculty.

#### **Disaggregating the Components of Business School Value**

Researchers in strategic management (e.g. Barney & Clarke, 2007; Kaplan & Norton, 2001; Porter, 1980) have long argued that value is generated not by individual components but rather by the systematic interaction of components. As Kaplan and Norton (1996: 31) state, effective performance management "should identify and make explicit the sequence of hypotheses about the cause-and-effect relationships between outcomes and measures and the performance drivers of those outcomes". As a first step, we identify and examine the difference between business school input, process and outcome variables, which is a framework that has been used before to understand business programs (Hamlen & Southwick, 1989).

#### **Business school input variables**

The BSRN defines *input variables* as variables that are antecedents of business school activities (AACSB, 2013). Today, input variables represent a significant number of existing measures used in global business school ranking systems (e.g. Economist, Financial Times) and for accreditation (AACSB, 2014). Input variables are often considered at the school-level (e.g. student, faculty). For example, input variables may include percentage of faculty with PhDs (AACSB, 2014) or the international composition of the student body (Business Week, 2014); see Table 2 for examples of input variables.

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### Business school process variables

The BSRN defines *process variables* as variables that contribute towards the operation of business school activities. These variables are considered most often at a business school or program level (e.g. MBA). These include such variables as business school mission (AACSB, 2013), class size (Business Week MBA, 2014) and learning activities (Financial Times, 2013). Refer to Table 3 for examples of these variables.

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### Business school outcome variables

The BSRN defines *outcome variables* as variables that are the result of business school activities (Aguinis et al., 2014; Yorio & Ye, 2011). The outcome variable may be assessed at the business school or program level. For the development of the BSSC, outcome variables are assessed using *outcome measures*. The BSRN defines *outcome measures* as the measures used to evaluate the impact (i.e. what has been changed, accomplished, or improved) as a result of business school activities (AACSB, 2013). For example, business school outcome measures include job placement of graduates (Business Week MBA, 2014), dissemination of faculty research (Times Higher Education, 2014) or commercialization revenue linked to intellectual contributions (DiGregorio & Shane, 2003). Outcome measures are often specific to stakeholders (Bennis & O'Toole, 2005; Boyle, 2004), including students (Ghoshal, 2005), practitioner

(Clinebell & Clinebell, 2008), communities (Boyle, 2004) and scholars (Starkey & Madan, 2001). Refer to Table 4 for examples of these variables.

Insert Table 4 about here

#### A Stakeholder View of Business School Value

Based on the analysis above, the BSRN concluded that the effective measurement of business school value must be done at a stakeholder level. In other words, it is a question of *value for whom*? Both scholars (e.g. Bennis & O'Toole, 2005; Ghoshal, 2005) and accreditation bodies (e.g. AACSB, 2013) contend that business school outcomes are defined by the contextual nature of value. Similarly, Freeman (2010) argued that legitimate stakeholders are central to organizational performance, and contended that organization–stakeholder relationships are a mutual exchange driven by self-interest, making policy makers and public ministries key stakeholders in business schools. Thus, stakeholder relationships are founded fundamentally on a reciprocal exchange of resources (tangible or intangible) that generates value for the relational partners (Arnett, German, & Hunt, 2003; Barney & Clarke, 2007). Therefore, the nature of value is defined individually by each stakeholder and positively or negatively influences the motivation of a stakeholder to enter a relationship for the purpose of exchange. Therefore, identifying and examining the priority stakeholders of business schools is essential to defining outcome variables and associated measures (Lester, Tomkovick, Wells, Flunker, & Kickul, 2005).

Researchers in stakeholder relations have approached the analysis and segmentation of stakeholder groups in a variety of ways. (Arnett, German, & Hunt, 2003; MacMillan et al., 2005, Freeman, Wicks & Parmar, 2004). Stakeholder theory and "the corporate objective revisited". Organization science, 15(3), 364-369.). Mitchell, Agle and Wood (1997) contended that

stakeholders should be defined by three criteria: legitimacy, power and urgency. Recent challenges to legitimacy, discussed above have created urgency for business schools to begin the process of reclaiming or reasserting that legitimacy amongst its stakeholders. Power, however, is an ongoing, negotiated outcome based on positions, hierarchy, and validation by stakeholders. Literature on business schools identifies a range of stakeholders critical to business school success (Bennis & O'Toole, 2005; Lester et al., 2005; Starkey & Madan, 2001). For the development of a BSSC, the BSRN research team identified four stakeholder groups: students (including alumni), practitioners, communities (including government ministries and legislatures that fund public universities) and scholars (including scholarly outlets and funding agencies). Based on this, four stakeholder-centric working groups were established to examine the valuedrivers that underlie the resources exchange with a business school. This systematic link between resource value and outcome measures will form the foundation for the scorecard. The following section will examine the scope of each of these four stakeholder groups and identify the specific value derived from a resource exchange with a business school. Figure 1 provides a conceptual view of the links between input, process and outcome variables and their relationship with business school activities and stakeholders.

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An important next step in this process was the definition of each stakeholder and the specific value they may extract from their direct or indirect relationship with a business school. The four stakeholder groups will now be reviewed.

#### Student stakeholders

The BSRN defines a *student* as an individual taking a program at an accredited business school. Given the diversity of students and programs, it is valuable to divide this stakeholder group based on the following:

- Program-type (e.g. MBA, Executive Education, Undergraduate);
- Student-level input variables (e.g. socio-demographic variables).

We include alumni in this group because they are former students who successfully completed a business school program (both credential and non-credential).

Scholars have identified value-drivers for business students to include the acquisition of conceptual knowledge (Blackwell, 1981); development of technical and meta-skills (Laker & Powell, 2011; Lievens & Sackett, 2012); the development of professional networks (Boyatzis, Stubbs & Taylor, 2002); mentoring (Raymond & Kannan, 2014); and pre-graduate work experience (Gault, Leach & Duey, 2010). Table 5 defines each of these value-drivers and the associated literature support.

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### Practitioner stakeholders

The BSRN defines *practitioners* as an individual or group who engages in business or management. At an individual-level it includes all individuals who engage in business or management. At a group-level it includes all organizations (e.g. profit, non-profit, government), professional associations (e.g. CPA) and industries. Practitioner stakeholders may engage a business school directly through business school initiatives (e.g. fund joint research), mentoring of students, or they may engage a business school indirectly (e.g. through hiring). Individuals and organizations may also engage with business schools through guest lectures, or as executives in residence. Student clubs often rely on executives to fund activities, such as travel to conferences, or sponsorship of events. Academic administrators seek their support for competitions, such as MBA Games or case competitions such as those sponsored by Net Impact, relying on them for judges and coaches. Professional associations often exert a direct influence over curriculum through the provision of certifications, such as the Certified Human Resource Professional conferred by the Canadian Human Resource Professional Association, which evaluates individual courses for compliance with its guidelines. They rely on business schools for the provision of executive education. Business degree programs that have a mandatory co-op component also rely on partner institutions for student Co-op placements. This wide range of activities serves to create legitimacy for business schools with students and other community members.

Scholars (e.g. Chia & Holt, 2008; Bennis & O'Toole, 2005; Rynes, Bartunek & Daft, 2001; Starkey & Madan, 2001; Tanyel, Mitchell & McAlum, 1999) suggest that practitioners access value from business schools through two channels. First, they access knowledge through hiring graduates and co-op students or interns and through the professional development of employees. Secondly, they access knowledge by engaging faculty directly through consulting or collaborative research (Bennis & O'Toole, 2005). They may also access knowledge and expertise through dissemination in channels relevant to practitioners (e.g. conferences, practitioner journals or mass media). Table 6 defines each of these value-drivers and the associated literature support.

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#### Community stakeholders

Community stakeholders have been identified as critical to business school success (AACSB, 2010). *Community stakeholders* are defined by the BSRN as collectives of individuals, organizations and governments with an interest in the school. Communities may be defined by geography (e.g. city or country) or sociological grouping such as language, history, culture or interest (Boothroyd & Davis, 1993). A priority *community* for many business schools is defined by the political jurisdiction(s) that provide public funding and accreditation to postsecondary institutions (Fekete, 2013). For government bodies, the education of business graduates who can be placed in employment commensurate with their degree attainment is critical. In fact, Boyle (2004) argued that business schools face a legitimacy challenge from the communities they serve. Since the recession of 2008, the number of bachelor-degree holders facing under employment has increased (Abel, Dietz & Su, 2014), and has arguably contributed to an increase in students seeking degrees within business schools rather than in base disciplines of the social sciences and humanities.

In our approach, the establishment of a scorecard assessing community impact starts by separating the broader community from groups most closely associated with the mandate of business schools. As such, we exclude the main stakeholders of business schools: students, businesses, and the academic community that form the stakeholders included above. Here we are interested in the benefits from business schools that could accrue to the broader society, specially public and third-sector organizations (Corry, 2010).

A challenge in establishing a scorecard assessing the impact of business schools in their communities is that every business school's jurisdiction is different, and many communities benefit differently from the contributions of a variety of business schools. For example, some

communities may be under strong natural-environment stresses, whereas others may face larger social constraints. Consequently, business schools and their constituents may engage in different community-development initiatives and actions, depending on their jurisdictions. As such, we measure the values, attitudes and behaviors (Triandis, 1979) that are associated with positive community effects. If those values and attitudes are promoted among its students and alumni and ingrained among the constituents of a business school, the inference is that there would be more positive community outcomes, regardless of the forms that such benefits may take. In fact, such perspective is supported by the vast literature in social capital, arguing that positive social cognitions (Nahapiet, & Ghoshal, 1998) and norms (Portes, 2000) have positive community wide effects (Coleman, 1988).

This approach is also consistent with critiques levelled at business schools since the financial crisis of 2008. We identify some common underlying values that should be present if communities are to benefit from the activities of business schools (Fukuyama, 2001). We propose that if community-driven values and attitudes are embraced by the institution and by its members, at the same time that they are part of the school's academic and educational objectives, there should be behavior manifestations with students and alumni groups that will positively impact their communities. The value-drivers for business schools' communities include: (1) enhancing ethical leadership (Boyle, 2004); (2) developing citizenship behaviours (Boyle, 2004); (3) building managerial capacity within the community (Benn & Martin, 2010; Wood, Davenport, Blockson, & Van Buren 2002); (4) providing ethics and social responsibility skills (Giacalone & Thompson, 2006); (5) acting as transformative social enterprises. All these factors should improve the impact of management education and the practice of an ethically oriented

economy (Akrivou & Bradley-Huang, 2014). Table 7 defines each of these value-drivers and the associated literature support.

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Insert Table 7 about here

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#### Scholar stakeholders

The BSRN defines a *scholar* as an individual who makes an intellectual contribution to advance the theory, practice, and/or teaching of business management (AACSB, 2013). Scholarship incorporates the use of generally accepted research principles, is validated by peers and disseminated to appropriate audiences. Validation of intellectual contributions includes the traditional academic or professional pre-publication peer review, but may encompass other forms of validation, such as online post-publication peer reviews, ratings, surveys of users (AACSB, 2013). Related stakeholders of scholars include funding agencies and scholarly outlets (e.g. peer-reviewed publications and conferences). Table 8 defines each of these value-drivers and the associated literature support.

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#### PILOT INSTRUMENTATION DEVELOPMENT

Following the process used by GLOBE, the literature review developed an inventory of 74 outcome variables across the four stakeholder groups. The data collection sources varied from attitudinal surveys (e.g. student satisfaction) to business school-level data sources (e.g. composite service-learning activities) to faculty-level data (e.g. total citation counts over previous five years). Table 9 represents example outcome measures by stakeholder group.

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This inventory became the foundation for the individual stakeholder working group to refine and develop instrumentation for the pilot phase. This refinement process involved the working groups identifying outcome measures that link to the identified stakeholder specific value-drivers. For example, the practitioner BSRN members identified employee knowledge and skill development as an important value-driver. This BSRN then identified that employer satisfaction with new graduate hires as an important outcome measure related to this value driver. Following an assessment of candidate measures (and associated instruments) the BSRN identified the thirteen items used in Rindova et al (2005) as optimal measures for practitioner evaluation of new graduate performance. In addition, the BSRN recommended these items be adapted and used in the scorecard as importance and performance measures as this will enable researchers to evaluate the relative relationship between the employer perception of the importance of skills and knowledge areas and the associated performance of new graduates in these areas.

In summary, the four stakeholder working groups developed a set of five comprehensive research instruments that is now the foundation of the conceptual BSSC.<sup>4</sup> The five instruments are:

- 1. Existing student survey undergraduate
- 2. Existing student survey graduate student
- 3. Alumni survey

<sup>&</sup>lt;sup>4</sup> The five BSSC instruments include hundreds of individual measures totaling 37 pages and given the constraints of this submission, they could not be included. Please contact the first author for a set of the full appendix including the instrumentation and associated methods and definitions.

- 4. Practitioner survey
- 5. Community stakeholder survey

The following section will review the next stage of our research study – the pilot testing of the scorecard instrumentation.

#### FROM THEORY TO PRACTICE

This paper presents a conceptual BSSC that, if implemented across a range of business schools, would provide researchers and administrators access to rich data to better understand the complex and dynamic nature of business school performance. Thus far, this has been a relatively academic and theoretically driven exercise. The next phase of this project will focus on transitioning theory to practice. We recognize the inherent challenges we will face. Ironically, the greatest challenges are not external but rather internal to the practices and cultures of our own organizations. Collaboration, compromise and consensus are rarely easy and sharing is even more difficult, because these metrics are closely tied to the interests of university-level administrators, legislatures, and ministries that fund university education. Yet, this is the only path forward. With an eye on legitimacy, urgency and negotiated power (by reaffirming the value that business schools provide), we strive to establish this BSSC as a viable, testable, dynamic tool to allow business schools across the globe to find ways to track their own performance and impact amongst their key stakeholders. To this extent, the next phase of the project will focus on pilot testing the psychometric properties of the proposed measures that will comprise the BSSC. In addition, this pilot will allow us to test and refine the operational processes associated with the required and complex inter-institutional collaboration. The pilot will focus on the following issues:

- 1. The need to define consistent data collection methods across participating business schools and researchers.
  - a. Student data collection (at graduation)
    - i. Inclusion of consistent questions on business student graduate survey (both undergraduate and graduate).
  - b. Alumni data collection (year 3 & 5)
    - i. Inclusion of consistent questions for business school alumni survey.
  - c. Practitioner (employer) data collection (annually)
    - i. Inclusion of consistent questions on employer survey. For consistency, this may involve potential regional collaboration amongst business schools.
- 2. The need to align on faculty annual reporting items.
  - a. Inclusion of consistent variables and associated definitions in faculty annual reporting systems.
- 3. The need to align on business school-level reporting.
  - a. Inclusion of consistent variables and associated definitions for business school reporting.
- 4. The need to align on inter-institutional data sharing protocols.
  - a. Data ownership protocol
  - b. Data access protocol
  - c. Privacy of personal data

#### CONCLUSION

This study is the first output of this BSRN which was formed based on a goal - to enhance the positive impact of business schools on students, practitioners, scholars and

communities through facilitating collaborative, highly rigorous research of business schools' management and practice. By adopting a stakeholder-driven view of business schools - it is essential that we adopt a holistic and inclusive view of our role. This call comes at a time when higher education is experiencing pressures for change due to the rapid development of technologies for delivering programs, and the global flow of workers from areas with fewer opportunities to those with more vibrant economies. As business schools that have emphasized research, which have a stake in the funding policies by governments and donors, it is essential that business schools from a variety of institutions participate in the conversations about the future. The interests of business schools differ from journalists producing rankings and international accreditation bodies, in that we represent the providers of education to students, the vast majority of whom earn credentials in non-elite institutions. Direct communication with stakeholders can best be accomplished through evidence-based discussion that transcends local and regional boundaries. The BSRN to date has been, primarily, a collaboration amongst a relatively small group of researchers and business schools who share this common vision. However, as we move forward it is essential that we engage a broader range of stakeholders who share this same vision. To this end, this is an open invitation for engagement and contribution to the community. We recognize that there are many management scholars, alumni, practitioners, policymakers and community leaders who share a common passion about the positive role that business schools play in society - but also recognize we must continually focus on enhancing our contribution. We hope that the BSRN and the BSSC can be a conduit to facilitate and support the goal of continuous improvement in the measurable performance of business schools.

# TABLE 1

Stakeholder	Title	Gender
Business School (Career College)	Dean	Male
Business School (Comprehensive)	Associate Professor & Co-Director	Male
Business School (Polytechnic)	Instructor	Male
Business School (Medical-Doctoral)	Associate Dean (PhD Programs) & Professor	Male
Business School (Undergraduate)	Assistant Professor	Male
Business School (Distance Learning)	Director	Female
Business School (Undergraduate)	Associate Professor	Male
Business School (Medical-Doctoral)	Associate Professor	Male
Community	Public Policy Consultant	Male
Business School (Medical-Doctoral)	Executive in Residence	Male
Business School (Undergraduate)	Assistant Professor	Male
Business School (Undergraduate)	Dean	Female
Business School (Undergraduate)	Student	Male
Business School (Undergraduate)	Alumni	Male
Business School (Undergraduate)	Director	Male
Business School (Distance Learning)	Associate Dean & Program Director	Female
Business School (Undergraduate)	Program Director & Associate Professor	Female
Business School (US -Undergraduate)	Professor of Business & Chair	Male
Business School (Polytechnic)	Associate Dean	Female
Practitioner	Director of Policy, Research & Government Relations	Male
Business School (Medical-Doctoral)	Vice Dean – Research	Female
Business School (Comprehensive)	Assistant Professor	Male
Business School (Medical-Doctoral)	Associate Professor	Female
Business School (Undergraduate)	Visiting Scholar	Male
Business School (Undergraduate)	Associate Dean	Male

# **PROFILE OF WORKING GROUP MEMBERS**

# **TABLE 2:**

# **EXAMPLE INPUT VARIABLES**

Example input variables	Level	Source
Student diversity	Student	Economist MBA Ranking, 2014
% faculty with PhDs	Faculty	AACSB, 2013
% female faculty	Faculty	Financial Times, 2013
Pre-MBA salary	Student	Economist MBA Ranking, 2014
Research funding	Business school	Powers, 2003

# TABLE 3:

# **EXAMPLE PROCESS VARIABLES**

Example process variables	Level	Source
Student-Faculty ratio	Business school	QS World Rankings, 2013
Learning activities	Program	Financial Times, 2013
Business school mission	Business school	AACSB, 2013
Curriculum design	Program	Bedggood & Donovan, 2012
Value of network	Business school	Economist Ranking EMBA, 2014

## TABLE 4:

# **EXAMPLE OUTCOME VARIABLES**

Example outcome variables	Stakeholder	Source
Graduate placement	Student	Business Week MBA, 2014
Citation counts	Scholars	Times Higher Education, 2014
Consulting contracts	Practice	Bekkers & Bodas Freitas, 2008
Commercialization revenues	Practice	DiGregorio & Shane, 2003
Graduate salary	Student	Financial Times, 2013

# TABLE 5:

# **STUDENT VALUE-DRIVERS**

Resource value	Scope	Literature support
Conceptual	Conceptual knowledge is the theoretical foundation of	Cunningham, Reuler,
Knowledge	a discipline. It is argued that areas of conceptual	Blackwell,& Deck, 1981;
	knowledge have a longer lifecycle and are more stable.	Locke, 2002
Technical Skills	Technical skills include the use of technical knowledge	Huang & Lin, 2011; Laker &
	needed to meet the requirements of specific jobs.	Powell, 2011; Pang & Ming,
	Technical skills are often tangible and specific, for	2005; Smith, Smarkusky &
	example, creating a balance sheet or analyzing a data	Corrigall, 2008;
	set using statistics.	
Meta-Skills	Meta-skills include broad skills applicable across most	Finch, Hamilton, Baldwin &
	business functions. This includes dimensions	Zehner, 2013; Lievens &
	associated with interpersonal skills, problem solving,	Sackett, 2012; Rynes, Orlitzk
	adaptability, communications skills, time management	& Bretz, 1997
	and leadership.	
Networking	Researchers suggest that in the context of education,	Bennis & O'Toole, 2005:
	knowledge creation and transfer can occur through	Boyatzis, Stubbs & Taylor,
	explicit channels (e.g. courses) and tacit channels (e.g.	2002; Pfeffer & Fong, 2004.
	networking). The role of networks in value creation	
	has been amplified in the past decade with the advent	
	of phenomena such as social media which both	
	amplify and accelerate the diffusion of information	
	within these networks.	
Mentoring	Mentoring is defined as the "informal transmission of	Raymond & Kannan, 2014;
	knowledge, social capital, and psychosocial support	Bozeman & Feeney, 2007.
	. between a person who is perceived to have greater	Boyle & Boice, 1998; Ragins
	relevant knowledge, wisdom, or experience (the	Cotton & Miller, 2000.
	mentor) and a person who is perceived to have less	
	(the protege) (Bozeman & Feeney, 2007: 731).	
	Evidence from the literature indicates that mentoring	
	can enhance academic career and psychosocial	
	outcomes and that business schools can improve	
	faculty retention by implementing well-designed	
	programs.	

Pre-graduate work experience may include in-program	Callanan & Benzing, 2004;
experiential learning opportunities (e.g. co-op and	Gault, Leach & Duey, 2010;
internships) or more informal career related work	Sulaiman& Mohezar, 2006.
experience such as part-time or summer employment.	
Pre-graduate work experience has been directly linked	
to future employment and is a factor that is candidly	
looked at by employers when evaluating new graduate	
potential (Callanan & Benzing, 2004).	
	experiential learning opportunities (e.g. co-op and internships) or more informal career related work experience such as part-time or summer employment. Pre-graduate work experience has been directly linked to future employment and is a factor that is candidly looked at by employers when evaluating new graduate

# TABLE 6:

# **PRACTITIONER VALUE-DRIVERS**

Resource value	Scope	Literature support
Employee skill	An educated and skilled workforce is essential for	Amaram, 2005; Lin, Tsai, Joe, &
& knowledge	competitive advantage. For example, the development	Chiu, 2012; Batra, 2010; Hitt,
development	of innovative new products and services is vital for	Beirman, Shimizu, & Kochhar,
	long-term growth and performance. Consequently,	2001; Ismall, Omar, &
	recruitment of educated and intellectually advanced	Bidmeshgipour, 2010; Bekkers &
	employees (and development of existing employees) is	Bodas Freitas, 2008;
	pivotal to an organization's success.	
Explicit	External knowledge transfer occurs when faculty,	Adler & Harzing, 2009; Bekkers
practitioner	student or staff of business schools activity engage and	& Bodas Freitas, 2008; Bennis &
knowledge	support practitioner. This may occur through a diverse	O'Toole, 2005.
transfer	range of mediums (Adler & Harzing, 2009; Bekkers &	
	Bodas Freitas, 2008). Direct forms include faculty	
	engagement in collaborative research projects with	
	practitioners, industry consulting activity, board	
	appointments, or being active in practitioner-centric	
	media (e.g. industry publications).	

# **TABLE 7:**

# **COMMUNITY VALUE-DRIVERS**

Resource value	Scope	Literature support
Ethical	Scholars contend that personal traits such as integrity	Boyle, 2004; Brown & Treviño,
leadership	would be important to perceptions of leadership	2006; Shapiro, 2001
	effectiveness and research has borne that out. For	
	example, survey research has linked perceived leader	
	effectiveness with perceptions of the leader's honesty,	
	integrity, and trustworthiness (Den Hartog et al., 1999;	
	Kirkpatrick & Locke, 1991; Kouzes & Posner, 1993;	
	Posner & Schmidt, 1992). This aspect of ethical	
	leadership represents the leader's proactive efforts to	
	influence followers' ethical and unethical behavior.	
	Such explicit behavior helps the ethical leader to make	
	ethics a leadership message that gets followers'	
	attention by standing out as socially salient against an	
	organizational backdrop that is often ethically neutral	
	at best (Treviño et al., 2000, 2003)	
Citizenship	Citizenship are activities that advance social welfare	Boyle, 2004; Labaree, 1997
	and contribute to the public good, while potentially	
	also providing private gain (Labaree, 1997).	
	Citizenship activities of a business school consider	
	activities by faculty, students and staff that extend into	
	the community and may encompasses ethics, corporate	
	social performance, stakeholder relationships, and	
	concerns over major social, political, and	
	human issues. Therefore, citizenship considers good at	
	both the individual and community level.	
Capacity	Capacity building is the process by which communities	Eade, 1997; Wood, Davenport,
building	(including individuals, organizations) increase their	Blockson,& Van Buren, 2002.
	ability to solve problems and achieve defined objectives.	
Skills	Ability to apply technical knowledge from Human	
	Resources, Accounting/Finance, Operations and	
	Information Technology.	

# **TABLE 8:**

# SCHOLAR VALUE-DRIVERS

Resource value	Scope	Literature support
Tangible	Business schools provide access direct or indirectly to	Adler & Harzing, 2009; Mitchell,
resources	financial support to scholars to support research. This	2007
	may include research grants, post-doctoral fellow-	
	ships, offices, library access or visiting professorships.	
Legitimacy	Legitimacy is the acceptability of a subject to its social	Bennis & O'Toole, 2005; Boyle,
	system (Deephouse & Suchman, 2008; Meyer &	2004; Pfeffer & Fong, 2004;
	Scott, 1983). Acceptability includes expectations	Ghoshal, 2005
	defined by explicit rules and laws (Ruef & Scott,	
	1998) and implicit norms that emerge over time	
	(Deephouse & Carter, 2005; Suchman, 1995).	
	Legitimacy is a key enabling resource essential for	
	scholars to make an intellectual contribution to their	
	discipline and profession. Research shows that	
	acquiring and maintaining legitimacy within a social	
	group involves making both symbolic and real	
	substantive actions to align the group norms and	
	expectations (Ashforth & Gibbs, 1990; Deephouse,	
	1996).	
Explicit	Explicit scholarly knowledge transfer may occur	AACSB, 2013; Adler & Harzing,
scholarly	through a diverse range of scholarly focused medium	2009; Bekkers & Bodas Freitas,
knowledge	(Adler & Harzing, 2009; Bekkers & Bodas Freitas,	2008; Bartunek , 2007; Chia &
transfer	2008). Scholarly knowledge transfer channel includes	Holt, 2008; Cohen, 2007; Karim
	the publication in peer-reviewed forums. The	& Dastmalchian, 2011; Nonaka e
	dissemination of knowledge in peer-reviewed forum is	al., 1994; Rynes, Bartunek &
	generally accepted as a measure of currency, relevancy	Daft, 2001; Van de Ven &
	and scholarly knowledge creation (AACSB, 2013;	Johnson, 2006
	Cohen, 2007).	

# TABLE 9:

Constructs	Example Measure	Citation/ Source <sup>5</sup>	Data Source	
Example Student Outcome Measures				
Composite satisfaction measures	<ul> <li>Satisfaction of current students with university</li> <li>Satisfaction of graduating students with university</li> <li>Satisfaction of alumni with university</li> <li>Composite life satisfaction</li> </ul>	<ul><li>AACSB, 2013</li><li>Financial Times, 2013</li><li>Rode et al., 2005</li></ul>	Existing student and alumni survey	
Career advancement measures	<ul> <li>Career advancement</li> <li>Salary increase</li> <li>Median salary</li> <li>Weighted salary over three years</li> <li>Placement success</li> <li>Debt payback</li> </ul>	<ul><li>Financial Times 2013</li><li>Economist</li></ul>	Alumni survey	
	Example Practitione	r Outcome Measures		
Employer satisfaction measures	<ul> <li>Employer satisfaction</li> <li>Graduate reputation</li> <li>Intern assessment</li> <li>Employment %</li> </ul>	<ul> <li>AACSB, 2013</li> <li>Business Week, 2014</li> <li>QS World University Rankings, 2013</li> </ul>	Employer survey	
Research: Industry funding measures	<ul><li>% research funded by industry.</li><li>Sponsored research</li></ul>	<ul> <li>Times Higher Education Rankings 2012-2013</li> <li>VanAken (2005) (387)</li> </ul>	Business school data	
Example Community Outcome Measures				
Public good measures	• Contribution to mission of state	• Estudio Comparativo de Universidades Mexicanas (2014).	Business school data and regional economic data	
Regional economic impact measures	<ul><li> R&amp;D expenditures</li><li> Patents</li><li> Employment share</li></ul>	• Drucker, & Goldstein (2007). (157)	Business school data	
Funding measures	<ul> <li>Number of Business School Faculty</li> <li>Creation of Business</li> </ul>		Business school data	

# **EXAMPLE OUTCOME MEASURE INVENTORY**

<sup>5</sup> If applicable, citation counts in parenthesis.

\_\_\_\_\_

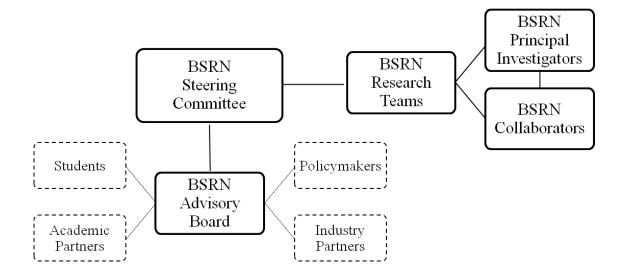
Incubators and projects with industry such as coop and internships

#### **Scholar Outcome Measures**

Scholarly productivity measures	<ul> <li>Books (research/ chapters)</li> <li>Textbooks</li> <li>Scholarly journals</li> <li>Case studies published</li> <li>Scholarly conferences</li> <li>Research income</li> </ul>	<ul> <li>Times Higher Education Rankings 2012-2013</li> <li>Huff, A. S. (2000)</li> <li>Van Aken, J. E. V. (2005). (387)</li> <li>AACSB, 2014</li> <li>Aguinis et al (2014)</li> </ul>	Faculty annual reports
Scholarly impact measures	<ul> <li>Citations per paper</li> <li>Citations per faculty</li> <li>h-index</li> <li>i-index</li> </ul>	<ul> <li>Times Higher Education Rankings 2012-2013</li> <li>QS World University Rankings</li> <li>Financial Times, 2013</li> <li>Aguinis et al., 2014</li> <li>Huang &amp; Lin, 2007(20)</li> </ul>	Faculty annual reports

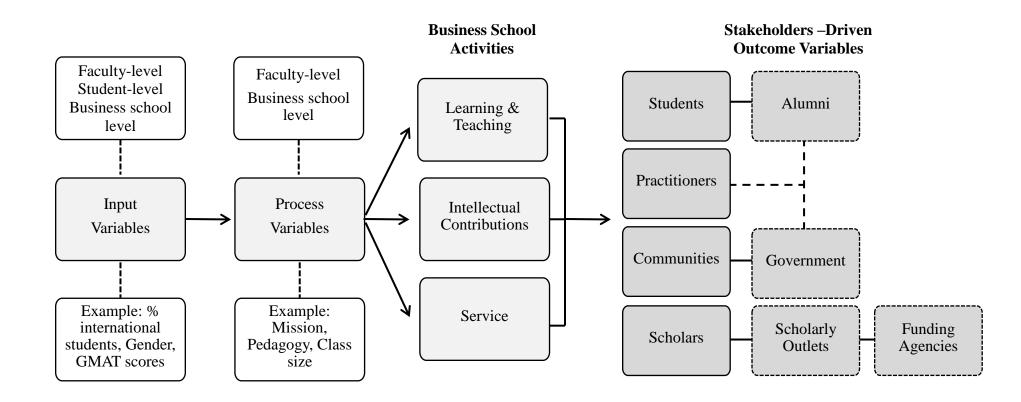
# FIGURE 1:

# **BSRN PROJECT GOVERNANCE**



### FIGURE 2:

### A STAKEHOLDER VIEW OF BUSINESS SCHOOL VALUE



APPENDIX

### **APPENDIX A:**

<b>PROFILE OF</b>	WORKING	<b>GROUP MEMB</b>	ERS

Stakeholder	Title	Gender
Business School (Career College)	Dean	Male
Business School (Comprehensive)	Associate Professor & Co-Director	Male
Business School (Polytechnic)	Instructor	Male
Business School (Medical-Doctoral)	Associate Dean (PhD Programs) & Professor	Male
Business School (Undergraduate)	Assistant Professor	Male
Business School (Distance Learning)	Director	Female
Business School (Undergraduate)	Associate Professor	Male
Business School (Medical-Doctoral)	Associate Professor	Male
Community	Public Policy Consultant	Male
Business School (Medical-Doctoral)	Executive in Residence	Male
Business School (Undergraduate)	Assistant Professor	Male
Business School (Undergraduate)	Dean	Female
Business School (Undergraduate)	Student	Male
Business School (Undergraduate)	Alumni	Male
Business School (Undergraduate)	Director	Male
Business School (Distance Learning)	Associate Dean & Program Director	Female
Business School (Undergraduate)	Program Director & Associate Professor	Female
Business School (US -Undergraduate)	Professor of Business & Chair	Male
Business School (Polytechnic)	Associate Dean	Female
Practitioner	Director of Policy, Research & Government Relations	Male
Business School (Medical-Doctoral)	Vice Dean – Research	Female
Business School (Comprehensive)	Assistant Professor	Male
Business School (Medical-Doctoral)	Associate Professor	Female
Business School (Undergraduate)	Visiting Scholar	Male
Business School (Undergraduate)	Associate Dean	Male

# **APPENDIX B:**

Variable	Example Measure	Citation (count)	Data Source
Overall satisfaction measures • Current students • Graduating students • Alumni		<ul> <li>AACSB (2013)</li> <li>Financial Times</li> <li>Rowan (2012)</li> <li>Ginns (2007)</li> <li>Douglas (2006)</li> </ul>	Existing student survey New graduate survey Alumni survey
Student retention measures	<ul> <li>% of students who persist from one academic year to the next.</li> <li>% of students who graduate.</li> </ul>	<ul> <li>AACSB (2013)</li> <li>DeShields Jr. (2005)</li> <li>Allen (2011)</li> <li>Braxton (2000)</li> <li>Jamelske (2009)</li> </ul>	Business school data
Career advancement measures	<ul> <li>Career advancement</li> <li>Salary increase.</li> <li>Median salary</li> <li>Weighted salary over three years</li> <li>Placement success</li> <li>Debt payback</li> </ul>	<ul><li>Financial Times</li><li>Economist</li><li>Business Week</li></ul>	Alumni survey
Graduate school measures	• % of students that attend graduate school	<ul><li>AACSB (2013)</li><li>Safon (2007)</li></ul>	New graduate survey
Student knowledge measures	• Standardized testing on key concepts	<ul> <li>AACSB</li> <li>Gurin <i>et al.</i> (2002) (1069)</li> <li>Carini (2006)</li> <li>Miller (1992)</li> <li>Rowan (2012)</li> </ul>	New graduate survey
Gross student outcome	• A single multi-dimensional scale of student outcomes.	• Williams& Van Dyke (2007). (41)	New graduate survey Business school data

# STUDENT OUTCOME MEASURES INVENTORY

## **APPENDIX C:**

Variable	Example Measure	Citation (count)	Data Source
Employer satisfaction Measures	<ul> <li>Employer satisfaction</li> <li>Graduate reputation</li> <li>Intern assessment</li> <li>Employment %</li> </ul>	<ul> <li>AACSB</li> <li>Business Week</li> <li>QS World University Rankings</li> <li>Gault, J. (2010)</li> <li>Wickramasinghe (2010)</li> </ul>	Practitioner survey Employer survey
Research: Industry funding measures	<ul><li>% research funded by industry.</li><li>Sponsored research</li></ul>	<ul> <li>Times Higher Education</li> <li>VanAken (2004) (387)</li> </ul>	Business school data
Research: Industry utilization measures	<ul> <li>Instrument use</li> <li>Conceptual use</li> <li>Practitioner publications</li> <li>Speaker invites</li> <li>Expert witness</li> <li>Paid consulting</li> <li>Joint research</li> <li>Invitations for participation</li> </ul>	<ul> <li>Nutley, Walter &amp; Davies (2003) (325)</li> <li>Arundel <i>et al.</i> (1995).</li> <li>Aguinis <i>et al</i> (2014)</li> <li>D'Este (2007) (504)</li> <li>Nicolai (2010)</li> <li>Huff (2000)</li> <li>Bartunek (2007)</li> <li>Starkey (2001)</li> <li>Aken (2004)</li> <li>Rynes (2001)</li> </ul>	Faculty annual reports
Research: Commercialization measures	<ul> <li>Licenses</li> <li>Licensing revenue</li> <li>Royalties</li> <li>Patents</li> <li>Start-up companies</li> <li>Product development</li> <li>Economic development</li> </ul>	<ul> <li>Siegel, Waldman, &amp; Link (2003) (825)</li> <li>Markman, Gianiodis, Phan &amp; Balkin (2005).</li> <li>Di Gregorio &amp; Shane (2003).</li> <li>Zucker, Darby &amp; Armstrong (2002) (811)</li> <li>Rothaermel &amp; Thursby (2005).</li> <li>Powers (2003)</li> </ul>	Business school data

# PRACTITIONER OUTCOME MEASURES INVENTORY

### **APPENDIX D:**

Variable	Example Measure	Citation (count)	Data Source
Public good measures	• Contribution to mission of state	<ul> <li>Estudio Comparativo de Universidades Mexicanas</li> </ul>	Community stakeholder survey
Regional economic impact measures	<ul><li> R&amp;D expenditures</li><li> Patents</li><li> Employment share</li></ul>	• Drucker & Goldstein (2007). (157)	Regional data
Societal impact measures	<ul> <li>Stakeholder specific</li> <li>Children</li> <li>Social groups</li> <li>Defines benefits by group</li> <li>Benefit to People</li> <li>Attitude/ behaviour</li> <li>Skill development</li> <li>Quality of life</li> <li>Benefit to organizations</li> <li>Capacity building</li> <li>Environment</li> </ul>	<ul> <li>Making a Difference Report (2009)</li> <li>Mwasalwiba (2010)</li> </ul>	Community stakeholder survey
Indirect measures	<ul> <li>Media coverage</li> <li>Expert witness</li> <li>Book sales</li> <li>Blog mentions</li> <li>Wikipedia mentions</li> <li>Social media measures (e.g. Twitter followers, Facebook likes; research gate)</li> </ul>	<ul> <li>Aguinis <i>et al</i> (2014)</li> <li>Safon (2007)</li> </ul>	Various

### COMMUNITY OUTCOME MEASURES INVENTORY

## **APPENDIX E:**

Variable	Example Measure	Citation (count)	Data Source
Recognition measures	Conference or Journal awards	<ul> <li>Academic Ranking of World Universities.</li> <li>Dubois (2000)</li> <li>Adler (2009)</li> </ul>	Faculty annual reports
Scholarly productivity measures	<ul> <li>Books (research/ chapters)</li> <li>Textbooks</li> <li>Scholarly journals</li> <li>Case studies</li> <li>Scholarly conferences</li> <li>Webpage data</li> <li>Research income</li> </ul>	<ul> <li>Times Higher Education</li> <li>Huff (2000)</li> <li>Van Aken (2004). (387)</li> <li>EQUIS (2014)</li> <li>AACSB (2013)</li> <li>Leiden University</li> <li>Aguinis <i>et al</i> (2014)</li> <li>CHE Rankings (2010)</li> <li>QS World University Rankings</li> <li>Abbott, M. (2003)</li> </ul>	Faculty annual reports
Scholarly impact measures	<ul> <li>Citations per paper</li> <li>Citations per faculty</li> <li>Google Scholar</li> <li>h-index</li> <li>i-index</li> </ul>	<ul> <li>Times Higher Education</li> <li>QS World University Rankings</li> <li>Financial Times</li> <li>Aguinis <i>et al</i> (2014)</li> <li>Huang (2011). (20)</li> <li>Padsakoff (2008)</li> <li>Abbott (2003)</li> </ul>	Faculty annual reports Content analysis
Scholarly Reputation measures	Reputation measures	<ul> <li>Times Higher Education</li> <li>Rindova (2005)</li> <li>Safon (2007)</li> <li>Padsakoff (2008)</li> </ul>	Scholar survey

## SCHOLARLY OUTCOME MEASURES INVENTORY

# APPENDIX F: PROPOSED SCORECARD INSTRUMENTS

# THE BUSINESS SCHOOL SCORECARD UNDERGRADUATE STUDENT SURVEY TEMPLATE

As a student, we would like your feedback on how (SCHOOL) contributed to your professional development. We estimate that this survey will take no more than 15-20 minutes to complete. Please review the instructions and respond to each of the questions on the basis of your first impression. You may withdraw at any time by exiting the survey. All responses are confidential and only aggregate data will be reported. Completion of this survey signifies your informed consent. Please note that this study has been approved by the university Human Research Ethics Board (Chair: \_\_\_\_\_).

If you have general questions about this study please contact \_\_\_\_\_

Thank you for your support

#### **BUSINESS SCHOOL SATISFACTION**

#### Satisfaction with program

1. According to your experience, please rate your satisfaction level of the following, where 1 is NOT satisfied, 7 is VERY satisfied.

	1	2	3	4	5	6	7
The ability of instructors.							
The friendliness of instructors.							
The approachability of instructors.							
Interaction between administration and students							
Instructors took an active interest in my learning.							
The concern shown when you have a problem.							
The respect for your feeling, concerns and opinions.							
Interaction between faculty and students							
The intellectual capacity of student body							
Student organizations							
The sense of competence, confidence and professionalism conveyed by the ambience in the classes.							
The balance between theory and practice.							
The amount of theory incorporated into the curriculum.	٦						
The appropriate amount of practice-based learning.	٦						
Overall, my learning experience was intellectually stimulating.							

Overall, my learning experience has been enjoyable.				
Internships and/or work placement opportunities				
Career placement assistance				
Career planning assistance				
Career fair				

#### Overall satisfaction with business school

2. According to your experience, please rate your agreement with the following statements, where 1 is strongly DISAGREE, 7 is strongly AGREE.

	1	2	3	4	5	6	7
My choice to attend the school was a wise one.							
If I had to do it again, I would attend the school.							
I would recommend the school to students interested in a business career.							
I would consider returning to (SCHOOL) for a graduate degree							
I would recommend to friend a business degree from the (SCHOOL)?							
My program prepared me better for employment than I expected.							
The intellectual environment was worse than I expected (R).							

Comments:

3. What were the most important dimensions related to your business school. Please RANK the top three:

- a. The degree I earned
- b. The mentoring I received
- c. The pre-graduation work experience I received
- d. The professional network I developed.
- e. Social and extracurricular activities
- f. The business school reputation
- g. The conceptual knowledge I gained
- h. The soft-skills I developed.
- i. The technical skills I developed

#### **OVERALL LIFE SATISFACTION**

4. According to your experience, please rate your agreement with the following statements, where 1 is strongly DISAGREE, 7 is strongly AGREE.

	1	2	3	4	5	6	7
In most ways my life is close to my idea.							
The condition of my life is excellent.							
I am satisfied with my life.							
So far I have gotten the important things I want in life.							
If I could live my life over, I would change almost nothing.							

Comments:

#### SELF-EFFICACY

5. According to your experience, please rate your agreement with the following statements, where 1 is strongly DISAGREE, 7 is strongly AGREE.

General Self-Efficacy	1	2	3	4	5	6	7
When I make plans, I am certain I can make them work.							
If I can't do a job the first time. I keep trying until I can.							
I am a self-reliant person.							
Failure just makes me try harder.							
When I have something unpleasant to do, I stick to it until I finish it.							
When I decide to do something, I go right to work on it.							
When trying to learn something new, I soon give up if I am not initially successful. (R).							
When unexpected problems occur, I don't handle them well. (R).							
I avoid trying to learn new things when they look too difficult for me. (R)							
I feel insecure about my ability to do things. (R)							
I give up easily. (R).							
I do not seem capable of dealing with most problems that come up in life. (R).							
One of my problems is that I cannot get down to work when I should. ( R )							

When I set important goals for myself, I rarely achieve them. (R).			ū				
I give up on things before completing them. (R).							
I avoid facing difficulties. (R)							
If something looks too complicated, I will not even bother to try it. (R)							
Social Self-Efficacy	1	2	3	4	5	6	7
It is difficult for me to make new friends. (R)							
If I meet someone interesting who is hard to make friends with. I'll soon stop trying to make friends with that person. (R)							
I do not handle myself well in social gatherings. (R)							
If I see someone I would like to meet, I go to that person instead of waiting for him or her to come to me.							
When I'm trying to become friends with someone who seems uninterested at first, I don't give up easily.							
I have acquired my friends through my personal abilities at making friends.							

#### BACKGROUND

The final section will collect some basic information on your background as a student.

- 6. What year did you graduate with your undergraduate degree?
- 7. What best describes the approach you took to your degree?
  - a. Fulltime student
  - b. Part-time student
  - c. Other
- 8. What is your age?
  - a. 17-24
    - b. 25-34
    - c. 35-44
    - d. 45-54
    - e. 55-64
    - f. 65 years and older

- 9. What is your gender?
  - a. Male
  - b. Female
  - c. Other

10. What is your overall GPA?

- a. < 2.00
- b. 2.01-2.50
- c. 2.51 3.00
- d. 3.01 3.50
- e. 3.51 4.00

11. What year of studies are you currently in?

- a. 1
- b. 2
- c. 3 d. 4
- e. 5 +

12. How did you get into your program?

- a. High School Entryb. Transfer from other University/College
- c. Entry from Open Studies
- d. Mature Student
- e. Other
- 13. Have you declared a major?
  - a. Yes
  - b. No
- 14. If you have declared a major, which is it?
  - a. Accounting
  - b. General Management
  - c. Entrepreneurship
  - d. Finance
  - e. Hotel & Restaurant Management
  - f. Human Resources
  - g. Information Systems & Technology
  - h. International Business
  - i. Marketing & Sales
  - j. Operations Managementk. Other
- 15. Have you declared a minor?
  - a. Yes
  - b. No

- 16. If you have declared a minor, which is it?
  - a. Accounting
  - b. General Management
  - c. Entrepreneurship
  - d. Finance
  - e. Hotel & Restaurant Management
  - f. Human Resources
  - g. Information Systems & Technologyh. International Business

  - i. Marketing & Sales
  - j. Operations Managementk. Other

#### THE BUSINESS SCHOOL SCORECARD

#### **<u>GRADUATE</u> STUDENT SURVEY TEMPLATE**

As a student, we would like your feedback on how (SCHOOL) contributed to your professional development. We estimate that this survey will take no more than 15-20 minutes to complete. Please review the instructions and respond to each of the questions on the basis of your first impression. You may withdraw at any time by exiting the survey. All responses are confidential and only aggregate data will be reported. Completion of this survey signifies your informed consent. Please note that this study has been approved by the university Human Research Ethics Board (Chair: \_\_\_\_\_).

If you have general questions about this study please contact

Thank you for your support

#### **BUSINESS SCHOOL SATISFACTION**

#### Satisfaction with program

1. According to your experience, please rate your satisfaction level of the following, where 1 is NOT satisfied, 7 is VERY satisfied.

	1	2	3	4	5	6	7
The ability of instructors.							
The friendliness of instructors.							
The approachability of instructors.							
Interaction between administration and students							
Instructors took an active interest in my learning.							
The concern shown when you have a problem.							
The respect for your feeling, concerns and opinions.							
Interaction between faculty and students							
The intellectual capacity of student body							
Student organizations							
The sense of competence, confidence and professionalism conveyed by the ambience in the classes.							
The balance between theory and practice.							
The amount of theory incorporated into the curriculum.							
The appropriate amount of practice-based learning.							
Overall, my learning experience was intellectually stimulating.							
Overall, my learning experience has been enjoyable.							
Internships and/or work placement opportunities							
Career placement assistance							
Career planning assistance							
Career fair							

#### Overall satisfaction with business school

2. According to your experience, please rate your agreement with the following statements, where 1 is strongly DISAGREE, 7 is strongly AGREE.

	1	2	3	4	5	6	7
My choice to attend the school was a wise one.							
If I had to do it again, I would attend the school.							
I would recommend the school to students interested in a business career.							
I would consider returning to (SCHOOL) for a graduate degree							
I would recommend to friend a business degree from the (SCHOOL)?							
My program prepared me better for employment than I expected.							
The intellectual environment was worse than I expected (R).							

#### Comments:

- 3. What were the most important dimensions related to your business school. Please RANK the top three:
  - j. The degree I earned
  - k. The mentoring I received
  - 1. The pre-graduation work experience I received
  - m. The professional network I developed.
  - n. Social and extracurricular activities
  - o. The business school reputation
  - p. The conceptual knowledge I gained
  - q. The soft-skills I developed.
  - r. The technical skills I developed

#### **OVERALL LIFE SATISFACTION**

4. According to your experience, please rate your agreement with the following statements, where 1 is strongly DISAGREE, 7 is strongly AGREE.

	1	2	3	4	5	6	7
In most ways my life is close to my idea.							
The condition of my life is excellent.							
I am satisfied with my life.							
So far I have gotten the important things I want in life.							
If I could live my life over, I would change almost nothing.							

Comments:

#### SELF-EFFICACY

5. According to your experience, please rate your agreement with the following statements, where 1 is strongly DISAGREE, 7 is strongly AGREE.

General Self-Efficacy	1	2	3	4	5	6	7
When I make plans, I am certain I can make them work.							
If I can't do a job the first time. I keep trying until I can.							
I am a self-reliant person.				٦			
Failure just makes me try harder.							
When I have something unpleasant to do, I stick to it until I finish it.							
When I decide to do something, I go right to work on it.							
When trying to learn something new, I soon give up if I am not initially successful. (R).							
When unexpected problems occur, I don't handle them well. (R).							
I avoid trying to learn new things when they look too difficult for me. (R)							
I feel insecure about my ability to do things. (R)							
I give up easily. (R).							
I do not seem capable of dealing with most problems that come up in life. (R).							
One of my problems is that I cannot get down to work when I should. ( $R$ )							

When I set important goals for myself, I rarely achieve them. (R).			ū				
I give up on things before completing them. (R).							
I avoid facing difficulties. (R)							
If something looks too complicated, I will not even bother to try it. (R)							
Social Self-Efficacy	1	2	3	4	5	6	7
It is difficult for me to make new friends. (R)							
If I meet someone interesting who is hard to make friends with. I'll soon stop trying to make friends with that person. (R)							
I do not handle myself well in social gatherings. (R)							
If I see someone I would like to meet, I go to that person instead of waiting for him or her to come to me.							
When I'm trying to become friends with someone who seems uninterested at first, I don't give up easily.							
I have acquired my friends through my personal abilities at making friends.	٦						٦

#### **EMPLOYMENT BACKGROUND**

- 6. Which one of the following best describes your employment prior to starting graduate school?
  - a. Temporary or casual
  - b. Fixed-term contract up to 12 months
  - c. Fixed-term contract more than 12 months.
  - d. Permanent or open-ended contract.
  - e. Not working
- 7. Do you still work for this employer?
  - a. Yes
  - b. No
- 8. How many years did you work for this employer?
  - a. <1 year
  - b. 1-3 years
  - c. 4-5 years
  - d. 6-10 years
  - e. >10 years

- 9. What was your employer's business name in full?
- 10. What was your employer's main business? (e.g. sector)
  - a. Agri-business
  - b. Arts & Culture
  - c. Bio-technology & Life Sciences
  - d. Education
  - e. Energy
  - f. Financial Services
  - g. Government
  - h. Healthcare
  - i. Non-Profit
  - j. Packaged Goods
  - k. Sports & Recreation
  - 1. Technology
  - m. Telecommunications
  - n. Tourism
  - o. Utilities
  - p. Other
- 11. Based on employees, specify the size of this company?
  - a. 1 employee (sole proprietorship)
  - b. 2-10 employees
  - c. 10-19 employees
  - d. 20-49 employees
  - e. 50-99 employees
    - f. 100-299 employees
    - g. 300-499 employees
    - h. >500 employees
- 12. What was your title?
  - a. President/ CEO/ Sole Proprietor
  - b. Vice President
  - c. Director
  - d. Manager
  - e. Coordinator
  - f. Assistant
  - g. Other

13. On average, how many hours per week were you working on this job?

- a. <10
- b. 11-20
- c. 21-30
- d. 31-40
- e. 41-50
- f. >51

- 14. <u>What was</u> your gross (pre-tax) annual salary in (LOCAL CURRENCY) in this job prior to starting graduate school? Estimate if necessary.
  - a. <\$20,000
  - b. \$20,000--\$60,000
  - c. \$60,000-\$100,000
  - d. \$100,000-\$150,000
  - e. >\$150,000
- 15. Do you have confirmed employment when you complete your graduate degree?
  - a. Yes
  - b. Not
- 16. If you have confirmed employment when you graduate, <u>what is</u> your estimated gross (pre-tax) annual salary in (LOCAL CURRENCY) of this position?
  - a. <\$20,000
  - b. \$20,000--\$60,000
  - c. \$60,000-\$100,000
  - d. \$100,000-\$150,000
  - e. >\$150,000

#### BACKGROUND

The final section will collect some basic information on your background as a student.

- 17. In what month and year did you start graduate degree?
- 18. What month and year do you anticipate completing your graduate degree?
- 19. What degree program did you graduate from?
  - a. Masters
  - b. Doctorate
- 20. What best describes the approach you took to your degree?
  - a. Fulltime student
  - b. Part-time student
  - c. Executive education
  - d. Other

- 21. Are you an international student?
  - a. Yes
  - b. Not
- 22. From what country are you from?
  - a. China
  - b. India
  - c. Korea
  - d. Saudi Arabia
  - e. United States
  - f. United Kingdom
  - g. Other

If other, please specify which country:

23. Which major or area of specialization did you declare?

- a. Accounting
- b. General Management
- c. Entrepreneurship
- d. Finance
- e. Hotel & Restaurant Management
- f. Human Resources
- g. Information Systems & Technology
- h. International Business
- i. Marketing & Sales
- j. Operations Management
- k. Other

24. What is your age?

- a. 17-24
- b. 25-34
- c. 35-44
- d. 45-54
- e. 55-64
- f. 65 years and older
- 25. What is your gender?
  - a. Male
  - b. Female
  - c. Other
- 26. What was your overall GPA at graduation?
  - a. <2.50
  - b. 2.51 3.00
  - c. 3.01 3.50
  - d. 3.51 4.00

- 27. What year of studies are you currently in?
  - a. 1
  - b. 2
  - c. 3
  - d. 4
  - e. 5+
- 28. Have you declared an area of specialization?
  - a. Yes
  - b. No
- 29. If you have declared area of specialization, which is it?
  - a. Accounting
  - b. General Management
  - c. Entrepreneurship
  - d. Finance
  - e. Hotel & Restaurant Management
  - f. Human Resources
  - g. Information Systems & Technology
  - h. International Business
  - i. Marketing & Sales
  - j. Operat k. Other Operations Management

#### STUDENT INSTRUMENT REFERENCES

- Haistead, D., Hartman, D., & Schmidt, S. L. (1994). Multisource effects on the satisfaction formation process. *Journal of the Academy of Marketing Science*,22(2), 114-129 (Citation 316)
- Coates, H., & Edwards, D. (2009). The 2008 graduate pathways survey: graduates education and employment outcomes five years after completion of a bachelor degree at an Australian university. *Higher Education Research*, 12. (citations 37)
- Diener, E. D., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The satisfaction with life scale. *Journal of personality assessment*, 49(1), 71-75. (10034 citations)
- Douglas, J., Douglas, A., & Barnes, B. (2006). Measuring student satisfaction at a UK university. *Quality Assurance in Education*, 14(3), 251-267. (Citation 174)

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#### THE BUSINESS SCHOOL SCORECARD

#### **ALUMNI SURVEY TEMPLATE**

As alumni, we would like your feedback on how (SCHOOL) contributed to your professional development. We estimate that this survey will take no more than 15-20 minutes to complete. Please review the instructions and respond to each of the questions on the basis of your first impression. You may withdraw at any time by exiting the survey. All responses are confidential and only aggregate data will be reported. Completion of this survey signifies your informed consent. Please note that this study has been approved by the university Human Research Ethics Board (Chair: \_\_\_\_\_).

If you have general questions about this study please contact

Thank you for your support

#### **BUSINESS SCHOOL SATISFACTION**

#### Satisfaction with program

1. According to your experience at (SCHOOL), please rate your satisfaction level of the following, where 1 is NOT satisfied, 7 is VERY satisfied,

	1	2	3	4	5	6	7
The ability of instructors.							
The friendliness of instructors.							
The approachability of instructors.							
Interaction between administration and students							
Instructors took an active interest in my learning.							
The concern shown when you have a problem.							
The respect for your feeling, concerns and opinions.							
Interaction between faculty and students							
The intellectual capacity of student body							
Student organizations							
The sense of competence, confidence and professionalism conveyed by the ambience in the classes.		ū	ū				
The balance between theory and practice.							
The amount of theory incorporated into the curriculum.							
The appropriate amount of practice-based learning.							
Overall, my learning experience was intellectually stimulating.							
Overall, my learning experience has been enjoyable.							
Internships and/or work placement opportunities							
Career placement assistance							
Career planning assistance							
Career fair							

#### Overall satisfaction with business school

2. According to your experience, please rate your agreement with the following statements, where 1 is strongly DISAGREE, 7 is strongly AGREE.

	1	2	3	4	5	6	7
My choice to attend the school was a wise one.							
If I had to do it again, I would attend the school.							
I would recommend the school to students interested in a business career.							
I would consider returning to (SCHOOL) for a graduate degree							
I would recommend to friend a business degree from the (SCHOOL)?							
My program prepared me better for employment than I expected.							
The intellectual environment was worse than I expected (R).							

Comments:

#### **OVERALL LIFE SATISFACTION**

3. According to your experience, please rate your agreement with the following statements, where 1 is strongly DISAGREE, 7 is strongly AGREE.

	1	2	3	4	5	6	7
In most ways my life is close to my idea.							
The condition of my life is excellent.							
I am satisfied with my life.							
So far I have gotten the important things I want in life.							
If I could live my life over, I would change almost nothing.							

Comments:

### SELF-EFFICACY

4. According to your experience, please rate your agreement with the following statements, where 1 is strongly DISAGREE, 7 is strongly AGREE.

General Self-Efficacy	1	2	3	4	5	6	7
When I make plans, I am certain I can make them work.							
If I can't do a job the first time. I keep trying until I can.							
I am a self-reliant person.							
Failure just makes me try harder.							
When I have something unpleasant to do, I stick to it until I finish it.							
When I decide to do something, I go right to work on it.							
When trying to learn something new, I soon give up if I am not initially successful. (R).							
When unexpected problems occur, I don't handle them well. (R).							
I avoid trying to learn new things when they look too difficult for me. (R)							
I feel insecure about my ability to do things. (R)							
I give up easily. (R).					٥		
I do not seem capable of dealing with most problems that come up in life. (R).							
One of my problems is that I cannot get down to work when I should. ( R )							
When I set important goals for myself, I rarely achieve them. (R).							
I give up on things before completing them. (R).							
I avoid facing difficulties. (R)							
If something looks too complicated, I will not even bother to try it. (R)							
Social Self-Efficacy	1	2	3	4	5	6	7
It is difficult for me to make new friends. (R)							
If I meet someone interesting who is hard to make friends with. I'll soon stop trying to make friends with that person. (R)							
I do not handle myself well in social gatherings. (R)							
If I see someone I would like to meet, I go to that person instead of waiting for him or her to come to me.							
When I'm trying to become friends with someone who seems uninterested at first, I don't give up easily.							
I have acquired my friends through my personal abilities at							

making friends.					
	making friends.				

#### CAREER DEVELOPMENT

- 5. Which one of the following best describes your employment?
  - a. Temporary or casual
  - b. Fixed-term contract up to 12 months
  - c. Fixed-term contract more than 12 months.
  - d. Permanent or open-ended contract.
  - e. Not working
- 6. What is your employer's business name in full?
- 7. What is your employer's main business? (e.g. sector)
  - a. Agri-business
  - b. Arts & Culture
  - c. Bio-technology & Life Sciences
  - d. Education
  - e. Energy
  - f. Financial Services
  - g. Government
  - h. Healthcare
  - i. Non-Profit
  - j. Packaged Goods
  - k. Sports & Recreation
  - l. Technology
  - m. Telecommunications
  - n. Tourism
  - o. Utilities
  - p. Other
- 8. Based on employees, specify the size of your company?
  - a. 1 employee (sole proprietorship)
  - b. 2-10 employees
  - c. 10-19 employees
  - d. 20-49 employees
  - e. 50-99 employees
  - f. 100-299 employees
  - g. 300-499 employees
  - h. >500 employees

- 9. What is your current title?
  - a. President/ CEO/ Sole Proprietor
  - b. Vice President
  - c. Director
  - d. Manager
  - e. Coordinator
  - f. Assistant
  - g. Other
- 10. What were the main tasks or duties of your job?

11. In what month and year did you start this job?

12. On average, how many hours per week are you working on this job?

- a. <10
- b. 11-20
- c. 21-30
- d. 31-40
- e. 41-50
- f. >51

13. What is your gross (pre-tax) annual salary in (LOCAL CURRENCY) in this job? Estimate if necessary.

- a. <\$20,000
- b. \$20,000--\$60,000
- c. \$60,000-\$100,000
- d. \$100,000-\$150,000
- e. >\$150,000
- 14. What were the most important dimensions related to your business school. Please RANK the top three:
  - a. The degree I earned
  - b. The mentoring I received
  - c. The pre-graduation work experience I received
  - d. The professional network I developed.
  - e. Social and extracurricular activities
  - f. The business school reputation
  - g. The conceptual knowledge I gained
  - h. The soft-skills I developed.
  - i. The technical skills I developed

15. According to your experience, please rate your agreement with the following statements, where 1 is strongly DISAGREE, 7 is strongly AGREE.

	1	2	3	4	5	6	7
I am very satisfied with my current job.							
The employability skills I developed in school prepared me for my current job.							
My current job is directly related to my field(s) of study in business school.	٦						
Overall, business school prepared me for my current job.							
I definitely see myself doing this work in the next five years.							

Comments:

#### BACKGROUND

The final section will collect some basic information on your background as alumni.

16. What year did you graduate?

### 17. What degree program did you graduate from?

- a. Bachelors
- b. Masters
- c. Doctorate
- 18. Which major or area of specialization did you declare?
  - a. Accounting
  - b. General Management
  - c. Entrepreneurship
  - d. Finance
  - e. Hotel & Restaurant Management
  - f. Human Resources
  - g. Information Systems & Technology
  - h. International Business
  - i. Marketing & Sales
  - j. Operations Management
  - k. Other

- 19. What was your overall GPA at graduation?

  - a. < 2.00 b. 2.01-2.50
  - c. 2.51 3.00
  - d. 3.01 3.50
  - e. 3.51 4.00
- 20. Are you an international student?
  - a. Yes
  - b. Not
- 21. From what country are you from?
  - a. China
  - b. India
  - c. Korea
  - d. Saudi Arabia
  - e. United States
  - f. United Kingdom
  - g. Other

If other, please specify which country:

22. What is your age?

- a. 17-24
- b. 25-34
- c. 35-44
- d. 45-54
- e. 55-64
- f. 65 years and older

23. What is your gender?

- a. Male
- b. Female
- c. Other

#### **ALUMNI REFERENCES**

- Haistead, D., Hartman, D., & Schmidt, S. L. (1994). Multisource effects on the satisfaction formation process. *Journal of the Academy of Marketing Science*,22(2), 114-129 (Citation 316)
- Coates, H., & Edwards, D. (2009). The 2008 graduate pathways survey: graduates education and employment outcomes five years after completion of a bachelor degree at an Australian university. *Higher Education Research*, 12. (citations 37)
- Diener, E. D., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The satisfaction with life scale. *Journal of personality assessment*, 49(1), 71-75. (10034 citations)
- Douglas, J., Douglas, A., & Barnes, B. (2006). Measuring student satisfaction at a UK university. *Quality Assurance in Education*, 14(3), 251-267. (Citation 174)

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## THE BUSINESS SCHOOL SCORECARD <u>PRACTITIONER</u> SURVEY TEMPLATE

We are studying how (SCHOOL) impact professional practice. We estimate that this survey will take no more than 15-20 minutes to complete. Please review the instructions and respond to each of the questions on the basis of your first impression. You may withdraw at any time by exiting the survey. All responses are confidential and only aggregate data will be reported. Completion of this survey signifies your informed consent. Please note that this study has been approved by the university Human Research Ethics Board (Chair: \_\_\_\_\_).

If you have general questions about this study please contact

Thank you for your support

#### FACTORS THAT INFLUENCE HIRING

1. Please rate the importance of the following factors in evaluating and hiring new graduates of business schools. 1 is NOT important, 7 is VERY important.

	1	2	3	4	5	6	7
Competencies required in their specialized area (e.g. accounting, marketing, finance, etc.).							
Real-world experience							
Specialized technical skills (e.g. graphic design, specialized engineering, etc.)							
Ability to adapt							
Critical thinking skills							
Written communication skills	٦						
Verbal communication skills							
Listening skills							
Mathematical skills							
Creative thinking skills							
Leadership ability required in their job							
Interpersonal skills							
Business ethics							
Professionalism							
Self-confidence							
Knowledge of specific software							
Importance of professional references							
Importance of Institutional reputation							
Importance of program reputation							

Academic performance							
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#### PERFORMANCE ASSESSMENT

2. In general, please rate your satisfaction level of the following qualities/skills in new graduates of business schools that you have hired in the past, where 1 is NOT satisfied, 7 is VERY satisfied, and 8 is not applicable.

	1	2	3	4	5	6	7
Competencies required in their specialized area (e.g. accounting, marketing, finance, etc.).							
Real-world experience							
Specialized technical skills (e.g. graphic design, specialized engineering, etc.)							
Ability to adapt							
Critical thinking skills							
Written communication skills							
Verbal communication skills							
Listening skills							
Mathematical skills							
Creative thinking skills							
Leadership ability required in their job							
Interpersonal skills							
Business ethics							
Professionalism							
Self-confidence							
Knowledge of specific software							

#### PRIORITY ACADEMIC AREAS FOR HIRING NEW BUSINESS SCHOOL GRADUATES

3. Please rate the importance of the specific academic areas/fields when hiring new graduates for your organization. 1 is NOT an important area, 7 is a VERY important area.

	1	2	3	4	5	6	7
Accounting							
General Management		٦			٦		٦
Entrepreneurship							
Finance							
Hotel & Restaurant Management							
Human Resources							
Information Systems & Technology							
International Business							
Marketing & Sales							
Operations Management							
Other							

Comments:

#### **OVERALL PERCEPTION**

4. According to your experience, please rate your agreement with the following statements, where 1 is strongly DISAGREE, 7 is strongly AGREE.

	1	2	3	4	5	6	7
The quality of the graduates of this school met my expectations.							
If given the choice, I would hire <u>more</u> graduates from (SCHOOL) in the future.							

I would recommend hiring graduates of (SCHOOL) in the future.				
I don't think it is important for business schools to collaborate with the business community.				
I think business schools are very removed from the real world.	٦			
It would be an outstanding opportunity to collaborate with business school faculty on joint-research projects.				

### COLLBORATION WITH BUSINESS SCHOOLS

5. According to your experience, please rate your agreement with the following statements, where 1 is NEVER, 7 is very OFTEN.

	1	2	3	4	5	6	7
Hire new graduates of business schools.							
Hire current students of business schools on internships.							
Works with business school students on class oriented projects.							
Work with business school faculty in joint research projects.							
Fund research at a business school.							
Hire business school faculty for consulting projects.							
Have business school faculty in to speak to employees or management.							
Have employees take professional development or executive education courses at a business school.							
Work with a business school to develop an in-house professional development programs or workshops.							
Support employees to complete a degree program at a business school (e.g. MBA).							
Purchase a subscription to an academic journal (e.g. Harvard Business Review).							
Have employees sit on a business school industry advisory committee.							

#### BACKGROUND

The final section will collect some basic information on your background as an employer.

- 6. In which industry are you currently employed?
  - a. Agri-business
  - b. Arts & Culture
  - c. Bio-technology & Life Sciences
  - d. Education
  - e. Energy
  - f. Financial Services
  - g. Government
  - h. Healthcare
  - i. Non-Profit
  - j. Packaged Goods
  - k. Sports & Recreation
  - 1. Technology
  - m. Telecommunications
  - n. Tourism
  - o. Utilities
  - p. Other

#### Comments:

- 7. Based on employees, specify the size of your company?
  - a. 1 employee (sole proprietorship)
  - b. 2-10 employees
  - c. 10-19 employees
  - d. 20-49 employees
  - e. 50-99 employees
  - f. 100-299 employees
  - g. 300-499 employees
  - h. >500 employees
- 8. What is your current title?
  - a. President/ CEO
  - b. Vice President
  - c. Director
  - d. Manager
  - e. Coordinator
  - f. Other

- 9. In your current role, are you the decision-maker when it comes to hiring new graduates?
  - a. Yes
  - b. No
  - c. No, but I influence this decision.
  - d. Other

Comments:

- 24. What is your age?
  - a. 17-24
  - b. 25-34
  - c. 35-44
  - d. 45-54
  - e. 55-64
  - f. 65 years and older

25. What is your gender?

- a. Male
- b. Female
- c. Other

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#### THE BUSINESS SCHOOL SCORECARD

#### COMMUNITY STAKEHOLDER SURVEY TEMPLATE

### **CONSTRUCT: SECOND ORDER CONSTRUCT ETHICAL LEADERSHIP**

### I. SCALE: Ethical Leadership Behaviours

SUBJECTS:	Graduates
	School Leadership

# DATA COLLECTION: Coworkers DATA COLLECTION: Faculty

According to your experience, please rate how the statements below represent <SUBJECT>, where 1 is <u>highly unlikely</u>, 7 is <u>highly likely</u>,

	1	2	3	4	5	6	7
Conducts h/h personal life in an ethical manner							
Defines success not just by results but also the way that they are obtained							
Listens to what employees have to say							٦
Disciplines employees who violate ethical standards							٦
Makes fair and balanced decisions							
Can be trusted							
Discusses business ethics or values with employees							
Sets an example of how to do things the right way in terms of ethics							
Has the best interests of employees in mind							
When making decisions, asks "what is the right thing to do?"							

### II. SCALE: Multidimensional Ethics Scale

Students 1 <sup>st</sup> year	DATA COLLECTION: Self
Graduates	DATA COLLECTION: Self
Academic Staff	DATA COLLECTION: Self
School Leadership	DATA COLLECTION: Self
	Graduates Academic Staff

#### Auto Scenario:

A person bought a new car from a franchised automobile dealership in the local area. Eight months after the car was purchased, he began having problems with the transmission. He took the car back to the dealer, and some minor adjustments were made. During the next few months he continually had a similar problem with the transmission slipping. Each time the dealer made only minor adjustments on the car. Again, during the thirteenth month after the car had been bought the man returned to the dealer because the transmission still was not functioning properly. At this time, the transmission was completely overhauled. Action: Since the warranty was for only one year (12 months from the date of purchase), the dealer charged the full price for parts and labor.

	1	2	3	4	5	6	7	
Fair								Unfair
Just								Unjust
Morally right								Not morally right
Acceptable to my family								Unacceptable to my family
Traditionally acceptable								Traditionally unacceptable
Culturally acceptable								Culturally unacceptable
Violate an unspoken promise								Does not violate an unspoken promise
Violate an unwritten contract								Does not violate an unwritten contract

What do you think the actions of the dealer were?

# Sales Scenario:

A young man, recently hired as a salesman for a local retail store, has been working very hard to favorably impress iris boss with his selling ability. At times, this young man, anxious for an order, has been a little over-eager. To get the order, he exaggerates the value of the item or withholds relevant information concerning the product he is trying to sell. No fraud or deceit is intended by his actions, he is simply over-eager.

Action: His boss, the owner of the retail store, is aware of the salesman's actions but he has done nothing to stop such practice.

	1	2	3	4	5	6	7	
Fair								Unfair
Just								Unjust
Morally right								Not morally right
Acceptable to my family								Unacceptable to my family
Traditionally acceptable								Traditionally unacceptable
Culturally acceptable								Culturally unacceptable
Violate an unspoken promise								Does not violate an unspoken
violate an unspoken promise					]		ļ	promise
Violate an unwritten contract								Does not violate an unwritten
violate all all written contract	ļ	ļ	ļ	ļ	ļ	ļ	ļ	contract

What do you think the actions of the salesman's boss were?

#### Retail Scenario:

A retail grocery chain operates several stores throughout the local area including one in the city's ghetto area. Independent studies have shown that prices do tend to be higher and there is less of a selection of products in this particular store than in the other locations.

Action: On the day welfare checks are received in the area of the city the retailer increases prices on all of his merchandise.

What do you think the actions of the retailer were?

	1	2	3	4	5	6	7	
Fair								Unfair
Just			٦	٦	٦	٦		Unjust
Morally right								Not morally right
Acceptable to my family								Unacceptable to my family
Traditionally acceptable							٦	Traditionally unacceptable
Culturally acceptable								Culturally unacceptable
Violate an unspoken promise								Does not violate an unspoken promise
Violate an unwritten contract						٦		Does not violate an unwritten contract

# II. SECOND ORDER CONSTRUCT: Cross Cultural Citizenship

# 1. SCALE: Global Citizenship

**SUBJECTS:** 

Students 1<sup>st</sup> year Graduates Academic Staff School Leadership

### a. Sub tem: Global Social Responsibility

According to your experience, please rate your agreement with the following statements, where 1 is strongly DISAGREE, 7 is strongly AGREE.

	1	2	3	4	5	6	7
I think that most people around the world get what they are entitled to have. (r)			٦	٦			
It is OK if some people in the world have more opportunities than others. (r)		٦	٥	٥		٦	
I think that people around the world get the rewards and punishments they deserve. (r)		٦	٥	٥		٦	
In times of scarcity, it is sometimes necessary to use force against others to get what you need. (r)		٦	٦	٦			
The world is generally a fair place. (r)		٦	٦	٦		٦	
I think that many people around the world are poor because they do not work hard enough. (r)							

### b. Global Competence: Self Awareness

According to your experience, please rate your agreement with the following statements, where 1 is strongly DISAGREE, 7 is strongly AGREE.

	1	2	3	4	5	6	7
I know how to develop a place to help mitigate a global environmental or social problem.			٦	٦			
I know several ways in which I can make a difference on some of this world's most worrisome problems.			٦	٥	٦	٦	
I am able to get other people to care about global problems that concern me.				٦			

### c. Global Competence: Intercultural Communication

According to your experience, please rate your agreement with the following statements, where 1 is strongly DISAGREE, 7 is strongly AGREE.

	1	2	3	4	5	6	7
I unconsciously adapt my behavior and mannerisms when I am interacting with people of other cultures.		٦					٥
I often adapt my communication style to other people's cultural background.							٦
I am able to communicate in different ways with people from different cultures.							٦

### d. Global Competence: Global Knowledge

According to your experience, please rate your agreement with the following statements, where 1 is strongly DISAGREE, 7 is strongly AGREE.

	1	2	3	4	5	6	7
I am informed of current issues that impact international relationships.		٦					
I feel comfortable expressing my views regarding a pressing global problem in front of a group of people.							
I am able to write an opinion letter to a local media source expressing my concerns over global inequalities and issues.							

### e. Global Competence: Involvement in Civic Organizations

According to your experience, please rate your agreement with the following statements, where 1 is strongly DISAGREE, 7 is strongly AGREE.

	1	2	3	4	5	6	7
Over the next 6 months, I plan to do volunteer work to help individuals and communities abroad.							
Over the next 6 months, I will participate in a walk, dance, run, or bike ride in support of a global cause.		٦					٦
Over the next 6 months, I will volunteer my time working to help individuals or communities abroad.							
Over the next 6 months, I plan to get involved with a global humanitarian organization or project.							
Over the next 6 months, I plan to help international people who are in difficulty.							

Over the next 6 months, I plan to get involved in a program that addresses the global environmental crisis.					
Over the next 6 months, I will work informally with a group toward solving a global humanitarian problem.		٦	٦		
Over the next 6 months, I will pay a membership or make a cash donation to a global charity.		٦	٦		

# f. Global Competence: Political Voice

According to your experience, please rate your agreement with the following statements, where 1 is strongly DISAGREE, 7 is strongly AGREE.

	1	2	3	4	5	6	7
Over the next 6 months, I will contact a newspaper or radio to express my concerns about global environmental, social, or political problems.							
Over the next 6 months, I will express my views about international politics on a website, blog, or chat room.							
Over the next 6 months, I will contact or visit someone in government to seek public action on global issues and concerns.							
Over the next 6 months, I will participate in a campus forum, live music, or theater performance or other event where young people express their views about global problems.							

# g. Global Competence: Global activism

According to your experience, please rate your agreement with the following statements, where 1 is strongly DISAGREE, 7 is strongly AGREE.

	1	2	3	4	5	6	7
If at all possible, I will always buy fair-trade or locally grown products and brands.		٦	٦	٦			
I will deliberately buy brands and products that are known to be good stewards of marginalized people and places.							
I will boycott brands or products that are known to harm marginalized global people and places.							

# **CONSTRUCT: SECOND ORDER CONSTRUCT COMMUNITY CAPACITY BUILDING**

#### SUBJECTS: Business Schools

### 1. FIRST COMMUNITY INTERACTION

In completing the questionnaire below, consider the activities of your business school (individual faculty's activities, institutional initiatives and joint task forces, collaborative research projects, workshops and so on) that have connected your schools activities to the

#### Public and third sector.

Firstly they are organized, i.e., they possess some institutional reality. They are private, i.e., institutionally separate from government. They are non-profit-distributing, i.e., not returning any profits generated to their owners or directors. They are self-governing, i.e., equipped to control their own activities. They are voluntary, at least in part, i.e., they involve some meaningful degree of voluntary participation, either in the actual conduct of the agency's activities or in the management of its affairs. (Salamon and Anheier 1997, p. 9)

In considering the interactions of your business school with the third and public sectors, please inform the following.

1. Financial resources invested in collaborative research	\$
2. Financial resources invested in contracted research	\$
3. Number of third sector and public organizations	
4. Total number of employees and or volunteers in these organizations	
5. Total aggregated annual budget of these organizations	\$
6. Number of consultancy projects	
7. Value of the consultancy projects	\$
8. Aggregated total number of hours of professional development provided	
9. Aggregated value of regenerated financial benefit	\$
10. Number of new IP created (patents)	
11. Number of IP licences granted	
12. Total income from new IPs	\$

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Higher Education - Business and Community Interaction survey 2012-13

#### **APPENDIX G:**

#### THE BUSINESS SCHOOL SCORECARD

#### **KEY DEFINITIONS**

Academic Unit: In the context of the scorecard, the business school is defined as the academic unit (AACSB, 2013).

Alumni: Are graduates of programs of business schools where a credential (e.g. certificate, diploma, degree). Alumni in the context of the scorecard exclude non-credential students.

**Business School Activities:** All activities and interventions of business schools at both an individual-level (e.g. faculty, student administration) and group-level (e.g. business school, department, student club). These activities can be broadly clustered into learning and teaching, intellectual contributions and service.

**Career College:** These institutions focus on offering certificate, diploma, university- transfer or continuing education programs. Their mission statements focus on the development of employable skills. Research conducted at career colleges are of an applied nature (Statistics Canada, 2009).

**Community stakeholders:** Community stakeholders are defined by the BSRN as collectives of individuals and organizations. Communities may be defined by geography (e.g. city or country) or sociological grouping such as language, history, culture or interest (Boothroyd & Davis, 1993). A priority community for many business schools is defined by the political jurisdiction(s) that provide public funding and accreditation to postsecondary institutions (Fekete, 2013).

**Consulting activity:** The BSRN identifies two types of consulting activity. *Management consulting* is when a faculty member or student is contracted and financially compensated by an organization to provide expertise and advice. These services may include (but not be limited to) strategic planning, facilitation, education and research (CMC-Canada, 2014). *Pro bon consulting* is consulting provided to non-profit community organizations, but where no financial compensation is provided to the faculty member or student.

**Conference presentations (refereed):** Refereed scholarly presentations made at academic conferences.

**Conference presentations (non-refereed): S**cholarly presentations made at academic conferences but were not refereed.

**Conference presentations (practitioner):** Non-refereed presentations made at conference where practitioners were the primary attendee.

**Executive education:** Executive education involves educational activities that do not lead to a degree but have educational objectives at a level consistent with higher education in management (AACSB, 2013: 13).

**Impact:** Impact is defined by the AACSB (2013) as the difference made or innovations fostered (e.g. what has been changed, accomplished, or improved) as a result of education or research activities at a business school.

**Institution:** The AACSB defines an institution as the legal entity that is accredited to offer an academic credential (e.g. university, college).

**Intellectual contribution:** Intellectual contributions are original forms of scholarship, based on accepted principles of research that advances theory, practice and/or teaching (AACSB, 2013). These intellectual contributions are validated by either academic or professional pre or post-peer review processes (AACSB, 2013; Aguinis *et al*, 2014). The AACSB (2013) identifies three distinct types of intellectual contributions (a) discovery scholarship that focuses on contributing to theory, knowledge and/ or practice; (b) applied scholarship that focuses on the integration or interpretation of existing knowledge normally intended to impact practice; and (c) teaching and learning scholarship that focuses on advancing the teaching and methods of learning.

**Joint research:** Applied or scholarly research that is jointed funded and/ or executed jointly between scholars and practitioners. Joint research activities may be at the individual or business school-level.

**Measures:** The measures of the scorecard are composed of both tangible and intangible dimensions. Tangible measures are defined as quantifiably objective measures linked directly to stakeholder impact. Examples of tangible measures may range from employment statistics, research grants or scholarly citation impact counts. Intangible measures are indirect indicators of stakeholder impact. These measures may include attitudinal dimensions such as alumni or employer satisfaction data. In addition, they may include quantifiable indirect measures associated with stakeholder impact such as the dissemination of expertise to non-scholarly audiences through mass media channels (e.g. interviews or conference presentations).

**Media mentions:** When a faculty or students specific intellectual contribution is recognized in mass media (including print and broadcast). This may be in the form of a reference to specific research or it may be in the context of an interview in which a faculty member or student is recognized as an expert in a specific field. Media mention excludes social media.

**Mission:** Defines the core purposes of a business school or academic unit (e.g. business school) and considers the current and futuren aspirations (AACSB, 2013; EQUIS, 2014).

**Normal time-to-degree:** Is the period of time that it is customary to complete a program at a specific business school (EQUIS, 2014).

**Retention rate**: The proportion of credential students who enter and complete their designated program (AACSB, 2013).

**Professional engagement:** Professional engagement is defined when a faculty member or student actively engages in their profession or industry (AACSB, 2013). Forms of professional engagement may include joint-research, paid consulting or executive education.

**Practitioner stakeholders:** The BSRN defines *practitioner* as an individual or group who engage in business or management. At an individual-level it includes all individuals who engage in business or management. At a group-level it includes all organizations (e.g. profit, non-profit, government), professional associations (e.g. CPA) and industries. Practitioner stakeholders may engage a business

school directly through business school initiatives (e.g. fund joint research) or they may engage a business school indirectly (e.g. through hiring graduates of business schools).

**Scholars:** An individual who makes an intellectual contribution to advance the theory, practice, and/or teaching of business and management. Scholarship incorporates the use of generally accepted research principles, are validated by peers and disseminated to appropriate audiences. Validation of the quality of intellectual contributions includes the traditional academic or professional pre-publication peer review, but may encompass other forms of validation, such as online post-publication peer reviews, ratings, surveys of users. Intellectual contributions may fall into discovery scholarship, applied scholarship and teaching & learning scholarship. (AACSB, 2013).

**Service activities:** The third explicit activity is associated with the service of faculty, staff and students (Mitchell, 2007). This service may be internally oriented activities, such as sitting on committees associated with curriculum design or governance; or it may include service that is externally oriented, such as being actively engaged in support of practitioner or communities.

**Student:** An individual taking a program at an accredited business school. For the purpose of the scorecard there is an important requirement to differentiate students based on the credential (e.g. Degree, certificate or diploma) or non-credential (e.g. one day executive education course); program (e.g. MBA); and student level-input variables including international students, mature students and demographics.

**University:** A degree granting institution that was created under the authority of a province's universities act or the equivalent (Statistics Canada, 2009). The BSRN identifies three major categories of university based on the primary degrees awarded (Statistics Canada, 2009). A *primarily undergraduate university* offers primarily first degrees (e.g. Bachelor of Commerce); a *comprehensive university* has a significant amount of research and offer both Bachelor and masters degrees with a limited number of doctoral programs; a *medical-doctoral university* invests in intensive research and has a wide range of doctoral programs and a medical-school.

Variables: There are three categories of variable defined by the BSRN:

*Input variables:* The BSRN defines *input variables* as independent variables that are antecedents of business school activities (AACSB, 2013). Today, input variables represent a significant number of existing measures used in global business school ranking systems (e.g. Economist MBA Ranking, 2014; Financial Times MBA, 2014) and for accreditation (AACSB, 2014). Input variables are often considered at the individual-level (e.g. student, faculty).

*Process variables:* The BSRN defines *process variables* as independent variables that contribute towards the operation of business school activities. These variables are considered most often at an business school or program-level (e.g. MBA). These include such variables as business school mission (AACSB, 2013), class size (Business Week MBA, 2014) and learning activities (Financial Times MBA, 2014).

*Outcome variables:* The BSRN defines *outcome variables* as dependent variables that are the result of business school activities (Aguinis *et al*, 2014; Yorio & Ye, 2011). The outcome variable may be assessed at an business school, program and individual-level. For the development of the business school scorecard, outcome variables are assessed using *outcome measures*.

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