AN ANALYSIS OF THE RELATIONSHIP BETWEEN PERSONAL BRANDING AND EMPLOYABILITY: (FOCUS ON ENGINEERING STUDENTS IN INDIA)

Dr. MURALI S

ASSOCIATE PROFESSOR, TRAINER, COUNSELOR

ABSTRACT

This paper ventured to investigate the relationship between personal branding and employability among engineering students in the Indian city of Bangalore. The study followed a stratified purposive sampling design involving 70 senior students from an institution of higher learning in technology, 15 faculty members from the same institution, and selected employers who typically hire engineering students in their respective organizations. Descriptive and inferential statistics were employed in the analysis and treatment of empirical data. Findings showed that personal branding and employability of engineering students in a Bangalore institution of technological learning are significantly related ($r=0.833$, $n=140$, $p<0.001$). Results also revealed that the personal brands which students intend to project do not concur with the faculty- and employer-evaluators' perception of personal branding ($W=0.200$, $n=210$, $p<0.001$). Recommendations called for the integration of personal branding inputs among applicable courses in the engineering curriculum and the conduct of a series of seminar-workshops to guide students in conveying their personal brands to significant people in the Indian and global job markets.

Table of Contents

Outline

1. Introduction

1.1 Research Objectives

1.1.1 Identify the elements of an effective brand and how the students prioritize each element in their personal branding;

1.1.2 Measure the employability of the students;

1.1.3 Assess the students personal brands and compare these brand to how faculty members and prospective employers perceive their brands;

1.1.4 Analyze the relationship between personal branding and employability;

1.1.5 Offer insights on improving the employability of engineering students and graduates based on the evidence gathered.

1.2 Research Hypotheses[1]

1.2.1 There is no significant difference in the level of importance attributed by the students to the elements of their personal brands.

1.2.2 There is no significant difference in the employability of the students based on the assessment of faculty members and employers.

1.2.3 There is no significant concordance in the respondents' perceptions of the students' personal branding.

1.2.4 There is no significant relationship between personal branding and employability.

1.3 Scope and Delimitation

1.3.1 Sample size: 100 total (70 students, 15 faculty members, and 15 employers) selected through stratified purposive sampling; engineering students were recruited from the following specializations: civil engineering,

1.3.2 Five variables (See research objectives - Sec 1.1 in the outline or complete paper) and four hypotheses (See Sec. 1.2);

1.3.3 Questionnaire is the primary research instrument, whereas a personal branding worksheet is the secondary research instrument.

[1] Only the null hypotheses are provided in the outline. However, it is understood that "hypotheses always come in pairs: the null and the alternative hypothesis" (Lee, et al. 489)

1.3.4 Descriptive and inferential statistics (See Sec. 3.5), two-tailed hypothesis testing at the 0.05 level of significance.

2. Literature Review
   - 2.1 Personal Branding
     - 2.1.1 Elements of Personal Branding
     - 2.1.2 Perceptions of Personal Branding
   - 2.2 Employability
     - 2.2.1 Elements of Employability
   - 2.3 Studies on Personal Branding and/or Employability
   - 2.4 Conceptual Framework of the Study
3. Methodology
   - 3.1 Research Design: Positivist philosophy, quasi-experimental and correlational research.
   - 3.2 Sampling Design: Stratified purposive sampling
   - 3.3 Instrumentation
     - 3.3.1 Instrument Design
       - 3.3.1.1 Questionnaire-Rating Scale (primary) - 5 parts, 29 items and 24 sub-items
       - 3.3.1.2 Personal Branding Worksheet (secondary),
       - 3.3.1.3 Resume and student portfolio (supplemental);
     - 3.3.2 Pilot Testing
       - 3.3.2.1 Carried out among 10 students
     - 3.3.3 Validity
       - 3.3.3.1 Face and content validity
       - 3.3.3.2 Internal consistency reliability
         - 3.3.3.2.1 Part 2: Cronbach alpha = 0.853
         - 3.3.3.2.2 Part 3: Cronbach alpha = 0.925
         - 3.3.3.2.3 Part 4, item 29 (24 sub-items): Cronbach alpha = 0.836.
   - 3.4 Data Gathering Procedure
   - 3.5 Statistical Treatment
     - 3.5.1 Coding Guide

3.5.2 Descriptive Statistics

3.5.2.1 Frequency and percentage distribution of students as to how elements of personal branding are prioritized

3.5.2.2 Frequency and percentage distribution of students in terms of their employability

3.5.2.3 Frequency and percentage of personal branding as perceived by the three groups of respondents

3.5.2.4 Means and standard deviations of the above distributions

3.5.3 Inferential Statistics

3.5.3.1 One-way analysis of variance (ANOVA): Significant difference in the level of priority attributed by the students to the elements of their personal brands

3.5.3.2 Independent sample t-test: Significant difference in the employability of the students based on the assessment of faculty members and employers

3.5.3.3 Kendall's Coefficient of Concordance: Significant concordance in the respondents' perceptions of the students' personal branding (Students, Faculty Members, and Prospective Employers)

3.5.3.4 Pearson's Coefficient of Correlation: Significant relationship between personal branding and employability

4. Presentation of Results

4.1 Tables, Graphs, and Discussion of Results

4.2 Summary of Findings

5. Conclusions and Recommendations

5.1 Conclusions

5.2 Recommendation

5.3 Limitations of the Study and Directions for Future Research

1. Introduction

Business tycoon Richard Branson, of the Virgin™ fame articulated his mantra that "there is almost no limit to what a brand can do, but only if used properly" (qtd. in Walliser 1). Brand, according to Peca, is the tangible part of vision, and is thus, an essential part of marketing and success (161). Walliser's views on branding and success are quite congruent with Peca, although the former was more specific about why branding is crucial to ensure success - it is all about differentiation and competitive advantage (1). Tons of reference books, authoritative article, and studies had been conducted to measure practically every aspect of branding and business success, as well as branding and marketability of a product, service or solution. Embarking on a research on these themes would just sound like playing a broken vinyl record, since vinyl is now used in precision polymers (Borner 117).

Certainly, vinyl records are a still hot collectors' item and some people prefer to listen to music the old school way. Vinyl has not outgrown its use. Yet, there are a host of emerging uses that are either as important, or even more important than it being a medium of music. Such importance is a function of who is weighing the essence and the interests being considered by the assessor. Branding can be likened to vinyl. It has never outgrown its use in business and marketing, but there are now new uses, say personal branding.

Personal branding, as described in Chritton (10), pertains to the expression of one's real self by allowing oneself to develop into the person one is meant to be. It is further described in the same work as a strategic procedure where a person takes an active role in directing the course of his own life. In verbatim, Chritton argued that "through personal branding, you find out how to bring more value to your work and to the target market that you serve". (10) It does not, however, mean that personal branding is developed overnight right after graduation or anytime a person wishes to find employment. Personal branding starts at the time a person builds a personal relationship that makes way for another person to perceive the former's value. The event causes a person's brand equity to accrue. (89)

It follows that the "another person" phrase delimited from the viewpoint of one's target market for possible work opportunities may not necessarily be family members, but rather people in school and in one's social life outside of the family circle, unless the family engages in some

form of business. It should be clearer now that the theme of this research paper tackles personal branding and employability. At this juncture, the paper is now being framed in terms of its research locale. India presents an interesting setting for a study on the personal branding-employability link. There are a number of reasons for the special attention on India in general and on Bangalore in particular, on top of the researcher's ethnic background:

- First, the latest available figures show that one in every three Indian graduates is jobless (i.e., 32%);
- Second, ironically the same report disclosed a distressing trend, especially for a student - the higher the students' educational level goes, the higher the unemployment rate increases;
- Third, unemployment is not simply an economic challenge - the ramifications of joblessness spawns social ills, including among others, poverty, criminality, and anarchy (Sharma).

The whole of India as a research locale poses formidable threats to resource availability and practical viability[2] of the study owing to its geographical expanse and its vast population. It is, therefore, more feasible to concentrate on a smaller chunk of the Indian demography in a specific city. Bombay is an easy choice since it is the capital city of one of urban India's industrial hubs and is, therefore, an employment haven for India's jobseekers. But Bangalore presents an equally interesting research locale, based on Mezak's arguments:

- The city has earned the moniker "Silicon Valley of India";
- It is a very popular city owing to the many job opportunities available;
- In fact, there were too many job opportunities, especially for the industry thriving in the city since the dawn of the second millenium;
- There are not "enough qualified engineers to fill" the job openings since the 1990s. (34)

Thus, there is a strong case for the study locale to be set in Bangalore. Bombay may be the industrial hub of India, but Bangalore is the technology hub. The present study may help ease the unemployment crunch and looking at the personal branding angle is still a virgin area for research. The last item in the foregoing bulleted list had been going on for decades and continues

[2] Whitley and Kite's insights in Chapter 5 offers great inputs about some important the characteristics of good research: feasible, researchable, can expand the present state of knowledge (115-117).

to the present time. The skills-job mismatch is discussed in more detail in the literature review. (Sec. 2.2, particularly Sarkar and Chaudhary)

In the Google generation, the job market steadily demands for engineering graduates, but not mediocre engineering graduates. Additionally, the Center for Educational Research and Innovation is crystal clear on this matter,

> The fast turnover of scientific and technical knowledge and the resulting need to keep pace with advances in the applied sciences and with engineering systems of growing complexity is becoming a concern of engineering firms and many of the advanced technology firms where engineers are employed ... The demand for highly competent, creative, and versatile engineers is intensifying as a result of the rapid growth of knowledge-intensive industries and increasing competition for national and international markets (169, 170).

The foregoing discussion provides a succinct backdrop for the main theme of the study - **An Analysis of the Relationship between Personal Branding and Employability: Focus on Engineering Students**. On top of the background, the importance of the study is also highlighted in the discussion. The following sub-sections complete the structure of the introduction of this research paper: (a) Research Objectives, (b) Research Hypotheses; (c) Problem Statement; and (d) Scope and Delimitation.

1.1. Research Objectives

The present study endeavored to evaluate the relationship between personal branding and employability among engineering students in Bangalore, India with the end in view of addressing not just the unemployment problem, but the growing discrepancy between level of education and rate of joblessness. Specifically, the research paper aims to achieve the following objectives:

1.1.1. Identify the elements of an effective brand and how the students prioritize each element in their personal branding;

1.1.2. Measure the employability of the students;

1.1.3. Assess the students' personal brands and compare these brands to how faculty members and prospective employers perceive the brands;

1.1.4. Analyze the relationship between personal branding and employability; and

1.1.5. Offer insights on improving the employability of engineering students and graduates based on the evidence gathered.

1.2. Research Hypotheses

The following hypotheses were tested using a 0.05 level of significance and a two-tailed or non-directional analysis. Null (Ho) and alternative (Ha) hypotheses were formulated using the appropriate test statistics.

1.2.1. Prioritizing Personal Brand Elements: Ho - There is no significant difference in the level of importance attributed by the students to the elements of their personal brands. Ha - There is a significant difference in the level of importance attributed by the students to the elements of their personal brands.

1.2.2. Employability of the Students: Ho - There is no significant difference in the employability of the students based on the assessment of faculty members and employers; Ha - There is a significant difference in the employability of the students based on the assessment of faculty members and employers.

1.2.3. Agreement among Students', Faculty Members', and Prospective Employers' Perceptions of the Students' Personal Branding: Ho - There is no significant concordance in the respondents' perceptions of the students' personal branding; Ha - There is a significant concordance in the respondents' perceptions of the students' personal branding;

1.2.4. Relationship Between Personal Branding and Employability: Ho - There is no significant relationship between personal branding and employability; Ha - There is a significant relationship between personal branding and employability.

1.3. Problem Statement

Unemployment is a big problem in India. It is rather alarming that in such a populous country, the higher the educational level gets, the more unemployment becomes a problem. One possible explanation for the ironic trend may have something to do job-seekers' personal branding. Those who seek employment may not be conveying their personal brands the way employers need to perceive them to be 'employable'. Thus, this study endeavored to evaluate the relationship between personal branding and employability among engineering students with the end in view of suggesting initiatives to alleviate the burden of unemployment. Particularly, the study addressed the following research questions:

1.3.1. What are the most important elements or attributes of personal branding among the student-respondents?

1.3.2. Are there significant differences in the level of importance attributed by the students to the elements/attributes of their personal brands?

1.3.3. How do the three groups of respondents perceive the students' personal brands?

1.3.4. Is there significant concordance in the respondents' perceptions of the students' personal branding?

1.3.5. How employable are the student-respondents based on the assessment of faculty members and prospective employers?

1.3.6. Are there significant differences in the employability of the students based on the assessment of faculty members and prospective employers?

1.3.7. Is there a significant relationship between personal branding and employability?

1.3.8. What recommendations can be offered to improve the employability of engineering students and graduates based on the evidence gathered?

1.4. Scope and Delimitation

The study is an empirical research that looks primarily into the relationship between personal branding and employability among selected Indian engineering students in their senior year as of the current school year. The respondents include:

- 70 students from the field of civil, computer, and electrical/electronics engineering;
- 15 faculty members from the institution where the students were recruited; and
- 15 human resource (HR) professionals from companies that employ engineering graduates.

A total of 100 respondents, selected using stratified purposive sampling, voluntarily participated in the study. Student- and faculty-respondents were recruited from a technology institute in Bombay. Employer-respondents were recruited from Bombay and other Indian cities.

Five variables investigated in the study: (1) level of importance of selected elements or attributes of personal branding among the student-respondents; (2) perception of the students' personal branding among the three groups of respondents; (3) employability of the students based on faculty and employer assessments; (4) relationship between personal branding and employability; and (5) ways of improving student employability based on the findings of the

study. The study utilized primary data. The questionnaire was used as the main data-gathering instrument, with the personal branding worksheet as a secondary instrument. Both descriptive and inferential analyses were used in the statistical treatment of data. Descriptive results on all five variables were presented in terms of frequency and percentage distribution either in tabular or graphical form, as well as means and standard deviations when applicable.

Hypotheses were tested using two-tailed analysis and a 0.05 level of significance. Significant differences in the level of importance attributed to personal branding attributes were evaluated using one-way analysis of variance. Meanwhile significant difference in the assessment of employability between the faculty and employers was determined using independent sample t-test. Significant concordance in the respondents' perceptions of the students' personal branding was assessed using the Kendall coefficient. Significant relationship between personal branding and employability was verified using Pearson's correlation.

2. Literature Review

This section presents a survey of pertinent literature and studies which have a bearing on the subject of the present research to offer a concise, but comprehensive narrative of state of knowledge on personal branding and employability in the selected engineering fields. The review is divided in four sub-sections: (1) personal branding, its elements or attributes, and perceptions on personal branding; (2) employability and its elements; (3) studies on personal branding and/or employability; and (4) the conceptual framework of the study.

2.1. Personal Branding

The first part of this study saw Chritton's description of personal branding (10). A myriad of authors have written about personal branding and their works have all defined the term in somewhat similar manner. For one, Mobray defines personal branding as the ability to consciously use qualities that demonstrate a person's capability to manage expectations that "another person" will perceive based on an encounter with the former[3]. (4) A few more definitions follow:

- Montoya looks at personal branding as an "identity that stimulates precise, meaningful perceptions in its audience about the values that a person stands for" (Montoya, qtd. in Rampersad 7)
- Honaman defines personal branding as one's own unique value derived from a set of actions and behaviors that cultivate and balance one's relationships in the context of family, community, faith and career (3, 4).
- Hitchings envisions personal branding as a unique perception of one person in the mind of other people, which the former can take part in creation and control through personal discovery or guidance from coaches/experts (4).

All the above definitions signify personal branding in terms of how a person is perceived by other people. The rest of the other resources browsed in connection with this study reflect the same idea. However, these resources vary as to the elements, attributes or qualities that comprise a personal brand. The following section tackled the elements of personal branding.

[3] To clarify the , 'former' refers to the first person mentioned in the definition , not the "another person", which is to be referred to, if necessary, as 'latter'. Manser explains proper usage of former and latter very clearly (135).

2.1.1. Elements of Personal Branding

Montoya's definition of a personal brand consists of two essential elements: emotional impact and consistency. These main elements are exceptionally interesting because they were considered from the viewpoint of the other person. Emotional impact refers to the feelings of "another person" about the person whose brand is being conveyed, as well as the other person's confidence, fascination, and trust. On the other hand, consistency has something to do with rooting the brand among the target audience via multiple contacts with the same brand message (qtd. in Rampersad 4, 5).

Meanwhile, Bence presented the attributes or elements of personal branding in the form of a framework. Bence's brand definition framework consists of six elements: (1) audience, (2) audience's need (s); (3) point(s) of comparison; (4) unique strengths; (5) delivery capability; and (6) brand character. The first three elements relate to external influences, whereas the last three elements relate to internal influences. The audience comprise of people one intends to evoke interest in the personal brand. Need or needs refer to specific gap or gaps one intends to satisfy within the context of the audience (ch. 3[4]).

Another element, point(s) of comparison refer to the 'who and what' of where the personal brand conveyed will be compared to by the audience in regard to fulfilling a need. Unique strengths of one's personal brand are the benefits that prospective audience can derive when one is entrusted to fill in a need. Unique strengths comprise a person's brand promise. Delivery capability was simply called 'reason's why in the Bence framework, but it was renamed by this researcher so that the element's name can embody it's definition in the framework as evidence or proof that the unique strengths in the personal brand being conveyed can be delivered. Finally, brand character reflects one's personality, attitude and temperament (ch. 3).

Chritton called the elements of personal branding as characteristics and alternatively, quilt pieces, and the building blocks of brand success. In the order that it was mentioned, these elements are needs, values, interests/passions, mission, vision, strengths, freak factor, personality attributes, education and work experience, 360º feedback, goals, and target market positioning statement. The 'needs' included in Chritton's personal branding elements are different from

[4] eBooks that are not paginated are cited in the MLA format into stable numbered sections like a chapter number abbreviated as ch. (Modern Language Association).

Bence's (ch. 3) 'needs'. In Chritton's work, needs are personal necessities which drive a person's feelings and affects personal values. (116)

Values, on the other hand, were described by Chritton as the emotional currency of a person's life. However, a further look into the definition revealed that 'values' in Chritton's personal brand elements measure up to everyone's general perception about values: the core principles that render meaning to one's life and are identified by a set of standards that determine ones actions, attitudes, and choices. Interest/passions are also as commonly perceived. Mission was defined as statements that spell out what one is all about and what one aims to do in life. Meanwhile, vision reflects on the mission and elucidates a possibility about a person and his brand. (116).

As defined in Chritton's personal branding elements, strengths are "patterns of interests and abilities that consistently produce a positive outlook in a specific task". (116) Then, there is what Chritton calls a 'freak factor' which identifies a unique quality that makes one different and unusual. In this researcher's analysis Bence's unique strengths are made up of Chritton's strengths and 'freak factor'. Personality attributes, according to Chritton's view of personal branding, are descriptors of the face that one shows to the world. Meanwhile, the education and work experience component are the solid brand attributes that one uses to describe himself (116). These solid brand attributes are comparable to Bence's delivery capability (ch. 3).

The 360º feedback attribute consists of the information about one's character provided by people who have good and sufficient knowledge about a person. Such feedback may come from co-workers or friends. The goals in one's personal branding refer to what one wants to achieve, following a commonly accepted notion. Finally, Chritton's target market positioning statement for personal branding is regarded as a tool which identifies how one intends to be positioned in the job market. The statement endeavors to put emphasis on the brand in terms of importance and differentiation in order to get noticed (116).

The most important term associated with personal branding would have to be brand equity - the multiplicative product of three factors: others' expectations, interaction experiences, and others' observations of one's personal brand. Others' expectations are what other people think about a person's capabilities. Interaction experiences are the results of other peoples' interaction with the person. Observations are the images that one projects to other people during interactions. As defined in McNally and Speak, when one of these factors is zero, brand equity

drops to zero as well. Brand equity falls or rises when any one of the three factors decreases or increases. (60)

2.1.2. Perceptions of Personal Branding

Morgan views personal branding as the fourth pillar of career management. Although his perspective of personal branding is set already in the workplace, the essence of branding still totally reflects what a personal brand should convey as a stepladder to employment. As a professional, Morgan takes to personal branding in terms of weaving self awareness, networking expertise, and skills excellence to one's personal value proposition. Efforts at personal branding integrates soft and hard skills into a portfolio that establishes one's differentiated brand within the circle of decision makers - one's audience who will eventually make the choice to open up career opportunities and work assignments. (13) Morgan, however, differs from Bence (ch. 3) in that Morgan considers the context of possible choices for an assignment as a competitive, not as a comparative landscape. (13)

The most interesting aspect of Morgan's article is about branding one's product - quality output that measures up to the analytical need. (14) This connotes that for first time job-seekers, personal branding is not just about resumes, GPAs, or certificates. Following from Morgan, a good illustration would be resume cover letters or application letters which need to be concise, organized, free of spelling and grammatical errors, and formatting style. While personal branding has to be a unique value proposition, Morgan issued a caveat about never attempting to recreate the gold standard. It is more about analyzing what works and delivering based on that standard with one's own kind of personal branding.(60)

A personal brand is a perception of a person's value in the minds of other people. It must be developed, cultivated, and managed to exude the notion that there exists no one else in the job market with that personal brand. The personal brand statement consists of four main elements: (1) target market identification by niche or job title; (2) choice personal attributes and characteristics that one intends to convey to other people; (3) highlights of technical skills and expertise; (4) differentiation. With this statement, building one's personal brand equity commences into a lifelong endeavor (Vitberg)

Along with the growth of digital technology, Hitchings noted a surge in the popularity of personal branding. Such popularity had seen personal branding to be more common now than it

was before when only people in the higher echelons of business and industry maintain personal brands. Branding presents an important option to promote oneself in the market, whether as a job-seeker, entrepreneur, or professional. It offers a creative and consistent medium to present oneself in terms of works, projects, values, and other essential aspects of one's trade or career. However, creating a personal brand is just one part of the story - it has to be maintained, nurtured, and updated to keep it constantly growing. (13) As Hitchings underscored, "a personal brand is more than a marketing statement; it is how ... [one] wants to be known and recognized as". (14)

2.2. Employability

Maier, Barney, and Price define employability as the qualities, work attitude, knowledge, practical and intellectual skills that a person develops which enable him to find a job, stay in the job, and achieve progress in his work position. They differentiate employability from employment as the latter simply refers to getting a job (17). Meanwhile, Knight and Yorke define employability as "a set of achievements, understandings and personal attributes that make individuals more likely to gain employment and be successful in their chosen occupations". (5) Carbery and Garavan's concept of employability involves the "capacity and willingness [of a person] to remain attractive in the labor market (493). Their (i.e., Carbery and Garavan) reference point is at the individual's level of analysis, whereas Maier et al. and Knight et al. did not consider the applicant or employee's willingness.

Knight et al. presented three arguments pertaining to employability. First, employability is probabilistic in that employability does not convert to employment in all certainty because of many extraneous socioeconomic factors. Secondly, for many graduates, the alternatives for an occupation are limited. Thirdly, securing an employment and being successful in it should not be conflated, or put simply, it does not necessarily follow that finding a job translates to being successful in that job. (5)

However, while most of the literature on employability surveyed for the present study delved on basically a similar construct, McQuiad and Lindsay observed that the concept is continually applied within a variety of contexts and to both groups of people seeking employment and people already employed. In which case, various sectors tend to view employability on different perspectives. (8) Nevertheless, as pointed out in McQuiad and

Lindsay, employability is not "merely a subject of theoretical debate ... [but] a cornerstone of labor market policies". (8) This is as far as the British government is concerned.

To say the least, a generally accepted working definition of employability does not exist because a simple dictionary definition of the term does not offer justice to the essence of employability as a premise for employment. McQuaid and Lindsay shared a similar view and argued that "arriving at a working definition is a far more complex process". (8) They also cited two working definitions of employability which are quoted in this study: one by the Confederation of British Industry (CBI) and another by the British government. Employability, according to CBI, is "the possession by an individual of the qualities and competencies required to meet the changing needs of employers and customers and thereby help to realize his or her aspirations and potentials in work". (qtd. in McQuaid and Lindsay 8) The British government's working definition of employability is naturally hinged on development, but very similar to the industry-articulated definition: "development of skills and adaptable workforces in which all those capable of work are encouraged to develop skills, knowledge, technology and adaptability to enable them to enter and remain in employment throughout their working lives". (HM Treasury, qtd. in McQuaid and Lindsay 8)

Meanwhile, earlier this year, the head of state of this study's geographic context had been very vocal about the how the country's problematic education system may be a factor in its unemployment problem. The generally observed low employability of Indian graduates put the spotlight on the education system and the urgency of the need. From the academe itself, only one of every ten Indian graduates are employable in the IT industry, as reported in Sarkar and Chaudhary. Practically the same observation was articulated in Sen and Mishra, who bared statistics from a 2012 study conducted by the organization *Aspiring Minds* that less than one fifth of Indian engineering graduates have employable skills. Moreover, considering that quite a large number of students graduate each year; the IT industry may experience a shortfall of at least 500,000 professionals. The discrepancy between the big annual graduate turnout and the possible professional shortage is due to skills and job requirements mismatch, which experts attribute to the education system. (Sarkar and Chaudhary)

Only a small portion of engineering graduates are reported to be employable. Overall, only three of every ten graduates are deemed job worthy. Sarkar and Chaudhury, who are from the academe, advocate the importance of addressing the possible reasons for the low

employability of Indian graduates in general, and engineering graduates in particular. Taking the cue from the Knowledge Commission of India, one possible reason for the low employability of graduates is the huge discrepancy between the quantity of higher education institutions and the quality of education being offered. (Sarkar and Chaudhary)

Even when the concept of employability is delimited to the field of engineering, it is quite congruent with the foregoing definition that obtaining education for employability connotes "lifelong learning and the acquisition of competency in flexible skills that enhance mobility and job security" (International Labor Organization [ILO] 28, 29). For the industrial sector, the ILO defines employable skills as those skills that enable employees to be responsive to the changing workplace context to contribute towards the competitiveness and growth of the enterprise. (29) In the national government context, employability is taken as the creation of a workforce via education with flexible competencies which can address the changing demands in the job market. (ILO 29) Thus, being educated for employability is considered by the world labor body as a "critical factor in contributing towards the goal of full employment". (29)

That being said, the ILO was quite crystal clear in qualifying that learning does not translate to employability outright. Instead of specific job skills being the critical factors that influence employability, ILO explained that it is rather the capability to effect transferability of the core competencies from job to job or from enterprise to enterprise. The ILO also delineated the primary requisites of employability: sound academic foundation and broad initial training to underpin continuing learning throughout a person's career (9).

2.2.1. Elements of Employability

Employability also has elements, which can be classified into internal and external factors that determine how one becomes more employable. The internal elements which are also referred to as the supply-side elements or micro-elements are: (1) the scope of transferrable competencies; (2) level of motivation in seeking employment; (2) mobility in finding employment; (4) access to employment and skills information and support networks; and (5) nature and scope of personal barriers to finding gainful employment. On the other hand, the external elements of employability are beyond the control of the job-seekers, and are also called demand-side elements or macro-elements. These external include the following: (1) employers' attitudes towards applicants or current employees; (2) quality of training and education of the supply side of the job market; (3) availability of information- and employment-related assistance

for disadvantaged applicants; (4) soundness of the country's taxation system, particularly in eliminating benefit traps for employers; and most importantly, (5) supply of appropriate jobs in the local economy (qtd. in McQuaid and Lindsay 16)

Pool and Sewell offered a simple and practical framework for employability cleverly calling it the CareerEDGE Model. The authors consider the framework to be applicable for introducing employability to students and developing their critical competencies. Figure 1 shows the framework and interaction among the factors that affect employability.

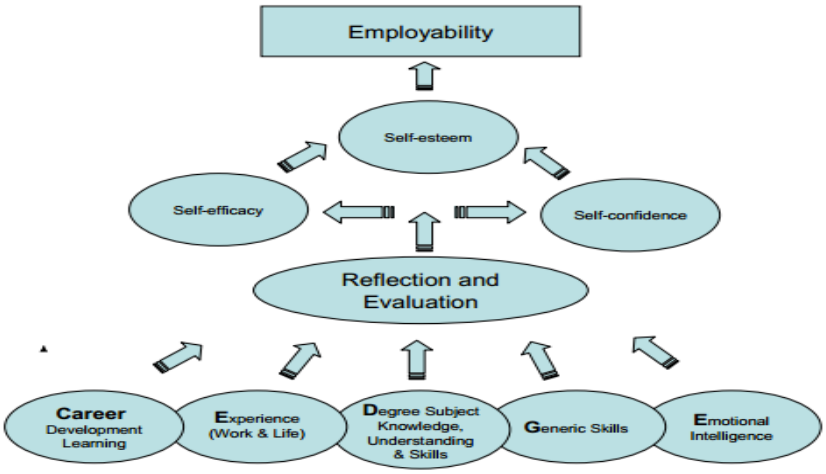


Fig. 1. The CareerEDGE Model from Lorraine Dacre Pool and Peter Sewell, "The Key to Employability: Developing a Practical Model of Graduate Employability", Education + Training 49.4 (2007). Web. 2 October 2014.

As posited in Pool and Sewell, as students are provided access for the factors in the lower tier made up of the mnemonic, CareerEDGE they develop these elements or factors of employability. These factors are: career development learning; work and life experience; degree subject knowledge, understandings and skills, generic skills, and emotional intelligence. The skills learned and the values inculcated are then applied to reflect on their experiences and evaluate them. These experiences eventually and naturally instill self-confidence, self-efficacy and self-esteem among students and later on professionals - the upper-tier of the factors. Pool and Sewell argued that the upper-tier factors enhance a person's employability. The framework builders, i.e., Pool and Sewell, stressed that the factors described in the mnemonic CareerEDGE are the keys that open the door of employability in terms of career options and securing occupations where the graduate has a chance of attaining satisfaction and success (8, 9).

2.3. Studies on Personal Branding and/or Employability

Meanwhile in the Asian context, Omar, Manaf, Mohd, et al. observed that the high unemployment rate in Malaysia may be caused by deficiency in the graduates' employability skills. Among others, the study revealed that graduates of bachelor degrees tend to be more employable, but academic excellence in terms of the cumulative grade point average (CGPA) is not an important factor for employability. Rather, soft skills were most in demand among employers, and are, therefore, more important factors for graduate employability. Soft skills include high quality communication and interpersonal kills, proficiency in foreign language, and ICT skills. (103)

Findings of Omar, et al. about soft skills may not be simply a Malaysian or Asian phenomenon. Several scholarly works from other geographical contexts revealed the same deficiency. Kumar and Hsiao observed that engineers learn soft skills the hard way since they are learning the required soft skills on the job. With the stiff competition in the job market and the changing demands in the workplace, engineering students and graduates have to develop soft skills including leadership and management skills, on top of the technical skills inherent in their field. (18)

Similarly, Pulko and Parikh tackled the difficulty of addressing the students' needs for basic professional skills via traditional modalities. They also confirmed that formal education had not been very successful in equipping students with skills that will benefit them professionally and personally (243) Bancino and Zevalkink noted that most technical professionals, engineers and engineering graduates included, lack communication skills. Some of the soft skills related to communication are face-to face interactions, non-verbal communications, active listening, writing, and presentation skills. Interpersonal skills include self-awareness, social awareness, relationship management, and conflict management. Bancino and Zevalkink also regarded skills in the areas of leadership and teamwork as important soft skills including among others, change management, emotional intelligence, negotiation skills, problem solving, and skill for empowering other people. (21)

Within the geographic context of the present study (i.e., India), Blom and Saeki revealed that core employability skills obtained the highest level of importance among employers hiring engineering graduates. The employers rated three sets of skills (core employability, professional, and communication) corresponding to the widely accepted Bloom's taxonomy of learning

domains (affective, cognitive, and psychomotor). Among the core employability skills which garnered the highest importance ratings were: integrity, self-discipline, reliability, being self-motivated, entrepreneurship skills, teamwork, ability to understand and carry out directions for assigned tasks, willingness to learn, flexibility, and empathy. (14)

The Blom and Saeki study also showed that communication skills were rated higher than professional skills in terms of their importance for employability considerations. Specific communication skills rated in the study include communication in English, written communication, reading, technical skills (those related to communication), skills related to experimentation (engineering-related) and data analysis, verbal communication, as well as basic and advanced computer skills. Meanwhile professional skills rated in terms of importance for employability include use of modern tools, application of mathematical, scientific and engineering knowledge, problem solving, design of systems to address specific needs, awareness of contemporary issues, and customer service skills. (14)

The survey of studies made about personal branding and employability were more of a general approach and were not focused on any particular field of expertise. No empirical studies were found about the relationship between personal branding and employability. However, this just strengthens the need for the conduct of the present study since the search for related studies revealed that assessing the relationship between personal branding and employability presents a virgin area for research. The few related literature and studies found are presented in this sub-section.

Fiorini tackled personal branding and employability in terms of the franchise builder category of employees. Franchise builders are differentiated from career builders who tend to progress upwards in the workplace hierarchy as loyal employees of a company. In contrast, franchise builders tend to constantly change workplaces and concentrate on their personal brand building. Franchise builders are looked upon as “boundaryless” and are considered to enhance their employability while building their personal brands. For franchise builders, the concept of job security is replaced by employability. (4)

The work of Hellqvist, Karlsson, and Udden underscored the importance of planning to build personal brands for students to render themselves attractive as future members of the workforce. Corollary to creating their personal brand is to see to it that the students convey the right message to their prospective audience in the correct manner. This is because once

prospective employers already made an impression of one's brand, it would be difficult to change. (22) Thus, it is every student's responsibility to create a strong personal brand, since their brand may affect their employability. (79)

Hellqvist, et al. delineated the following factors that can help improve a student's employability: driving force, education and good grades, work experience, activities that complement theory through applications, and international experience. (90) In turn, the academe also has a role to play to supplement the students' efforts for better employability: (1) provision of relevant national and/or international experience; (2) creation and maintenance of alumni network; (3) scouting for alternative channels to enhance the school's relation with the corporate sector and the local communities, as well as for marketing; (4) fostering internal marketing among the students regarding their unique character being associated with the institution and communicating such uniqueness externally. (91)

Meanwhile, Lancaster extended the concept of personal branding and employability to the digital context. The pros and cons of disseminating information on social media were discussed together with the implications to students' future employability. The work was, however, written from a practical experiential approach instead of the traditional research-based treatment. (320) Lancaster recommends students to start creating a sensible professional presence as students by regarding themselves as brands. He affirmed the challenges of developing a personal brand outside of the realm of employment, but vouched for the importance of striving to project a good one since this brand carries on for the rest of a person's career. (327) The article also tackled the difficulties of integrating employability through social media into existing teaching modalities (339).

2.4. Conceptual Framework

The present study follows a simple framework where personal branding, based on the elements considered in the study, influences employability. As applied in the study, personal branding as a construct was tailored after the combined Bence-Chritton framework (Bence ch. 3; Chritton 116). Meanwhile, employability as a construct was primarily designed based on the Blom and Saeki skills-base together with additional inputs discussed from literature. Figure 1 shows the conceptual framework.

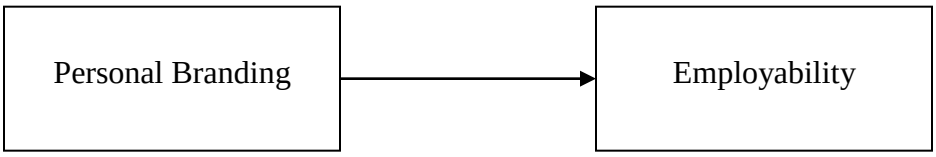


Fig. 2. The Conceptual Framework of the Study. The framework was adopted from the combined models discussed in the preceding survey of related literature and studies.

Grounded on the combined Bence-Chritton framework, the elements of personal branding are: the audience and their needs; points of comparison; unique strengths; delivery capability; brand character; mission; vision; personality attributes; 360º feedback; and goals (Bence ch. 3; Chritton 116). Meanwhile, employability was evaluated in this study by faculty and employers based on three sets of skills (core employability skills, technical/professional competencies, communication skills) defined by Blom and Saeki (14) as projected in the personal branding worksheet prepared by each student, the resumes and portfolio voluntarily submitted by the students for evaluation. The Blom and Saeki employable skills base was adopted in the study since the study was carried out in the Indian context and the findings were published by a world authority. A number of elements were added to the Blom and Saeki (14) skills base grounded on insights from literature, particularly, online presence from Lancaster and McQuaid and Lindsay (16).

3. Methodology

The section on methodology outlines the procedure followed in the conduct of the present study. It explains the preparations carried out prior to information gathering, the data collection procedure, data processing and the statistical analysis of data. This section is divided into five sub-sections: research design, population and sampling design, research instruments, data collection procedure, and statistical treatment.

3.1. Research Design

The philosophical assumption adopted in this study is the positivist approach. Being a quantitative research, positivism is a sound choice since the philosophy is typically used for quantitative studies that require hypotheses testing. As explained in Newman, et al., positivism assumes that “research is based on the scientific methods employed in the hard sciences and it is a method to get at the ‘truth’”. (194) Research underpinned on the theory of positivism consists of evaluation of hypotheses and is performed with the researcher’s expectation of an objective reality which can be estimated or measured (Newman et al. 194)

Research design demonstrates the structure of the study grounded on the research evidence required to address the research inquiry following the scientific approach. De Vaus explained that the role of research design is to see to it that the evidence gathered facilitates the researcher's response to problems posed "as ambiguously as possible" (9) The study is primarily a correlational research since it utilizes descriptive methodology to investigate the relationship between two variables (Mitchell and Jolley 224-225), personal branding and employability. To answer the other problems posed regarding the variables being investigated, quasi-experimental research designs were also used to compare ratings on non-manipulated variables from different respondent groups. (Gravetter and Forzano 284).

3.2. Population and Sample Design

As conceptualized and delimited, the study population comprise of three different groups: students, faculty members, and HR professionals from different companies, who represent the employer-respondents. The students were delimited to those engaged in the fields of civil engineering, computer engineering, and electrical and/or electronics and communications engineering, and are in their senior year from an institute of technology education in Bangalore, India. Faculty members were also recruited from the same three areas of engineering specialization from the same higher education institutions. HR professionals were scouted from Bangalore and other Indian cities via companies who employ personnel from the fields of civil engineering, computer engineering, and/or electrical/electronics/communications engineering. In figures, the study population consists of 420 students, 104 faculty members and over a million possible employers, but only about 439 firms specializing in engineering and infrastructure. (The Economic Times; Shine) As per ethical conduct of research, only the source of the employer population was identified since it is the responsibility of all researchers to protect the anonymity of respondents by not identifying schools. (Tolmie, Mujis and McAteer 61)

Table 1

Population of delimited research locale

Respondent Group	**Population** (N=963)	**Percentage**
Students	420	43.61%
Faculty Members	104	10.80%

Employers	439	45.59%

As shown in Table 1, the student group consists of 420 individuals representing 43.61% of the study population. The student population is broken down by field of specialization as follows: 120 (28.57% of the student group), the take-in student quota in civil engineering every school year; 120 (28.57% of the student group), the corresponding student take-in quota in computer engineering, and 180 (42.86% of the student group), the corresponding student take-in quota in electrical and electronics and electronics and/ot communications engineering. The faculty group consists of 104 professors representing 10.80% of the study population: a total of 26 (25% of the faculty group) professors hail from the civil engineering department; 24 (23.08% of the faculty group) were from the computer engineering department; and 54 (51.92% of the faculty group) were from the electrical and electronics/communications engineering departments. Slightly less than half of the study population was from the employer group, i.e., 439 of 963 or 45.59%.

3.2.1. Sampling Design

Owing to the specific focus of the study on engineering students, sampling design is deemed best structured using stratified purposive sampling. Stratified sampling divides the sampling frame into sampling elements termed as strata and chooses sample elements independently within each stratum (Chromy 648). Stratification renders the stratified purposive sampling approach similar to probability or randomized sampling, whereas the small sample generated from the purposive nature of the sampling strategy offers some leeway to tailor-fit the sample for the research problems (Teddlie and Tashakkori 186). Using a combination of sampling approaches as described, is both permitted and encouraged for practical reasons. According to Vogt, Gardner, and Haeffele, the best reason for using both probability and purposive samples in a study is when the intent of the study and the research questions requires this approach (221), as in the case of the present study.

The following parameters were considered in the computation of study sample size: (1) a study population of 963; (2) an 8% margin of error; (3) a 90% level of confidence; and (4) a

response distribution of 50% (Raosoft). The minimum required sample size computed using the online calculator is 96, but the number is padded with an additional 5% to an even 100 respondents for contingency in case of unretrieved or invalidated questionnaires. (Appendix 1) A hundred respondents is deemed to possess sufficient power to detect significant differences or relationship.

Based on an a-priori statistical power analysis using Faul, et al.'s G*Power application: (1) one-way analysis of variance will have a statistical power of 81% for a medium effect size among three groups with a total of 66 respondents; (2) a correlation analysis with at least moderate relationship will have a statistical power of 95% with at least a sample of 46. (Appendix 2). The minimum acceptable statistical power recommended by Rubin is 0.8 or 80%. (150) Thus, 70 students were recruited to voluntarily participate in the study since it is the students' personal branding, and employability that will be analyzed.

Sample elements from the student group were selected based on the percentage of the student population size per engineering specialization. This part of the sampling design is stratified. Meanwhile, faculty members who were requested to assess the students' personal branding and subsequent employability were purposively sampled based on the following inclusion criteria: (1) a faculty evaluator for a specific student-respondent should be recruited from the same engineering department as the student; (2) faculty evaluator should have known the specific student-respondent as a former or current student in one or more of the latter's academic subjects or is sufficiently familiar with the student based on a past academic or extra-curricular interaction; and (3) faculty agrees to voluntarily participate in the present study and signs the consent form provided in the questionnaire cover letter.

There is one exclusion criteria for both faculty- and employer-respondents. They should not be a relative of any of the students within the fourth degree of consanguinity or affinity to avoid bias. This is because the assessment of the students' personal branding and employability by the faculty group is not a blind assessment. Consanguinity implies relationship by blood, whereas affinity connotes relationships from marriage. (Statsky 103) Although blind assessment or blind review is associated with treatment assignment in clinical research, blind assessment in this study means that the students were not aware which professor or employer evaluated them - resembling the idea in Harris (129). However, in this case, peers do not participate as reviewers,

but rather, review or evaluation is performed by experts like in legal research (Folger and Crapanzano 39).

Accordingly, 15 faculty members qualified for all the inclusion criteria, while also considering the exclusion criteria. In the case of the faculty group performing an assessment of the research variables considered in the study, it was a one way or single blind assessment. This part entails purposive sampling from the stratified purposive sampling design discussed earlier.

HR professionals connected with Indian firms hiring engineering graduates in the field of engineering are referred to in this study as employers or employer evaluators. They were also purposively sampled based on the following inclusion criteria: (1) an employer evaluator for a specific student-respondent should be assigned from a firm hiring engineering graduates or students in the same field of engineering specialization; and (2) respondent agrees to voluntarily participate in the present study and signs the consent form provided in the questionnaire cover letter.

Table 2 displays the details of the sample size for the student group. Meanwhile, Table 3 shows the details of the study sample size from each stratum. About a hundred employers qualified for the first two criteria, but only 20 agreed to sign the consent form. From the 20 employers, 15 were blindly assigned to evaluate the student-respondents' personal branding and employability. This part is a double-blinded assignment - students do not know which employer evaluated their documents and vice versa (Harris 129).

Table 2.

Sample size for the student group in terms of engineering specialization

Student Group	**Student Population** (N_1=420)	**Percentage**	**Sample Size** (n_1=70)
Civil Engineering	120	28.57%	20
Computer Engineering	120	28.57%	20
Electrical and Electronics Engineering	180	42.86%	30

As depicted in Table 2, 20 out of the 70 students (28.57%) each were recruited from both the civil and computer engineering departments. Meanwhile, 30 (42.86%) students were recruited from the electrical and electronics engineering/electronics and communications engineering department. From the list of students from each department obtained from the school, students were randomly sampled and checked if they qualify for the inclusion criteria. The inclusion criteria for students are: (1) in their senior year as students or if there are not enough senior students who qualified, those in their third year may be considered; and (2) respondent agrees to voluntarily participate in the present study and sign the consent form provided in the questionnaire cover letter.

To illustrate, for the civil engineering department, every sixth[5] student in the randomized list starting with the sixth student from the top were scrutinized until 20 respondents qualify based on the inclusion criteria. Then, those who need to be struck out from the list based in the exclusion criteria were disqualified. The process is repeated until the 20-respondent sample requirement is satisfied. The same scheme was applied to all the three groups of students since dividing the student population per department by the required sample size yielded a quotient of 6. However, 30 respondents were selected for the electrical and electronics/electronics and communications engineering students since this student group have a take-in population of 180.

The student-respondents' list was then finalized per engineering department and shown first to prospective faculty respondents. Faculty members were requested to check at least five students they know most from the given list by ranking them using the following scheme:

- 5 - Very familiar with this student's personality **and** academic/other skills
- 4 - Sufficiently familiar with this student's personality **and** academic/other skills
- 3 - Slightly familiar with this student's personality **or** academic/other skills
- 2 - Barely familiar with this student's personality **or** academic/other skills
- 1 - Does not have any knowledge to properly assess this student

Prospective employers were contacted and those who provisionally agreed to participate in the present study were requested to nominate their HR professional who will perform the task of doing a blind evaluation of the student respondents. After the HR professionals were identified, the respondent list was shown to the employer evaluators to confirm that they do not

[5] Basis: There are 120 in the population and 20 respondents are needed, so 120 is divided by 20 which equals 6. Some authors, like Babbie (209), call this selection process systematic sampling.

know any of the students in the list. None of the student-respondents in the finalized list were known to any of the 20 prospective employer-respondents who performed a blind evaluation of the students.

Table 3

Sample size for each respondent stratum

Respondent Groups	**Respondent Population** (N_t=963)	**Sample Size** (n_t=100)
Students	420	70
Faculty Members	104	15
Employers	439	15

The student sample had already been discussed in Table 2. Meanwhile, the 15 professors included in the study as faculty evaluators were selected based on their familiarity with the student-respondents' personality, academic performance, and other skills. Evaluators were assigned to students if their level of familiarity is at least 4. A faculty member was assigned to evaluate from a minimum of three students to a maximum of seven students based on the familiarity ratings. The 15 HR professionals who participated in the study as employer evaluators were assigned from a minimum of three to a maximum of six students based on the specialization/s the company is or are hiring.

3.3. Research Instruments

Research instruments refer to tools which are used for the collection and measurement of data (Colton and Covert 4). Meanwhile, instrumentation refers not only to the tools in instrument design, but also to the construction, assessment, administration, and control of the threats to instrument validity (Hsu and Sandford 607). In this sub-section of the methodology, instrument design is tackled together with pilot testing, and assessment of instrument quality for consistency and validity. A number of research instruments were utilized in the study. The primary and secondary instruments were designed, piloted and evaluated. The supplemental instruments were shown to the evaluators as submitted by the students, but students were provided guidelines for content submission.

The primary research instrument is a questionnaire-rating scale combination as described in Colton and Covert (7, 11-12). Colton and Covert defined questionnaires as instruments used to obtain factual information and to evaluate attitudes, beliefs, and opinions. (11) A questionnaire may also be interchangeably called a scale. To be more specific, the primary instrument used in this study is both a questionnaire and a rating scale. The nature of this study necessitates that the questionnaire be designed also as a rating scale. In verbatim, rating scales are utilized "to measure attitudes and opinions and also to record direct observation and assessment". (Colton and Covert 7).

The rating scale was adopted to facilitate assessment of the secondary research instrument, the personal branding worksheet, as well as to directly observe the student portfolio as supporting documents for the faculty and employer assessment of employability. The primary and secondary research instruments were described in sufficient detail in the next few pages and exhibited as Appendix 3. Both instruments were administered in English.

3.3.1. Instrument Design

The primary research instrument is basically similar for the three groups of respondents, differing only in some portions where the question items are directed only to one particular group or to both the evaluator-groups (faculty and employers). It includes a one-page cover letter briefly explaining the main objective of the study, the procedures involved, the desired research outcomes, and the possible benefits of participating in the academic exercise. (Lodico, Spaulding, and Voegtle ch. 8). In this study, the cover letter also served as a consent form, which includes a few sentences to the effect that returning the completed questionnaire back to the researcher is to be considered that a person is amenable to voluntary participation. From experience, using the term "informed consent form" as a questionnaire or cover letter heading tends to discourage some respondents from participating in a study, perhaps due to the perceived technicalities in signing the actual form. Marshall explained that another possible reason why prospective respondents are not too comfortable with signatures could be stigma from past incidents. (33) Instead, the components of an informed consent form were integrated into the cover letter with a statement that answering the survey and submitting the questionnaire back to the researcher is deemed acknowledgment that the salient points of the study and the respondent's role as a research participant are well-understood.

Additionally, integrating informed consent into the cover letter requires statements that guarantee confidentiality of all information that the respondents disclose, the respondents' anonymity and volunteerism, as well as the practice of ethical research on the part of the investigator/researcher (Lodico, et al. ch. 8). Ethical research is guided by the principles of beneficence or nonmaleficence, distributive justice, and respect for persons. Respect for persons emphasizes autonomy of the research participants and the unhindered exercise of their free will, whereas beneficence prescribes that participants benefit from the output of the study and non-exposure to any risk or harm. Meanwhile, distributive justice implies the absence of partiality in determining who benefits from the study and who bears the burdens or disadvantages in the conduct of the research (Marshall 7).

The primary research instrument consists of four parts for the student-respondents, and five parts for the faculty- and employer-respondents. Part 1 inquires about the respondents' basic profile. Response options have already been provided for easy processing:

- Course and year level for students;
- Academic department represented and designation or academic rank for faculty members; and
- Engineering specialty/specialties being hired in the company and designation for employers.

Part 2 consists of 11 items about personal branding and its attributes for the three groups of respondents. An additional two items were added for the student respondents to find out more about how students understand personal branding and if they had started developing their personal brand. All items have been provided with response options. Each of the attributes or elements is briefly explained to facilitate completion of the questionnaire. Item numbering starts in Part 2 and continues until the next two parts. Responses to Part 2 address the first objective of the study (Sec. 1.1.1) and the first research question (Sec. 1.3.1) - *What are the most important elements or attributes of personal branding among the student-respondents*?

Respondents answer the 10 items in Part 2 by indicating the level of importance of attributes/elements of personal branding, The five-point Likert scale was used in Parts 2 to 4 of the questionnaire-rating scale instrument. The Likert scale is the most popular and most commonly utilized approach in scaling. It is a summated-type rating scale developed by Rensis Likert. It consists of statements and a set ordered response alternatives (Johnson and Christensen

208). The response options for the most of Part 2 for all respondents are: very important, important, somewhat important, neither important nor unimportant, and absolutely not

Part 3 consists of 10 items about perceptions of the personal brands developed by the student-respondents using the secondary research instrument (i.e., the personal branding worksheet), and for the faculty-respondents, their familiarity with the students. Students provide self-ratings of the personal branding worksheet they accomplished, whereas the faculty- and employer respondents assess the worksheets based on theoretical and practical standards in the job market, respectively. All items have also been provided with response choices. Responses to Part 3 address the third objective of the study (Sec. 1.1.3) and the third research question (Sec. 1.3.3) - *How do the three groups of respondents perceive the students' personal brands?*

All three groups of respondents answer the 10 items in Part 3 by indicating their assessment of different attributes/elements of personal branding developed by the students using the worksheet, The response options for Part 3 are: excellent, very good, good or average, fair or below average, and poor.

Part 4 consists of 5 items about employability, the relationship between personal branding and employability, and the most important skills to enhance one's employability. Students provide self-ratings, whereas the faculty- and employer respondents assess the worksheets, resumes, and student profiles based on theoretical and practical standards in the job market. All five items have been provided with response alternatives. Responses to Part 4 address the fourth objective of the study (Sec. 1.1.4) and the fifth research question (Sec. 1.3.5) - *How employable are the student-respondents based on the assessment of faculty members and prospective employers?*

All three groups of respondents answer the 5 items in Part 4 by indicating their assessment of each item. Students provide self-ratings, whereas the evaluators assess the students based on their scrutiny of all the instruments The response options for the first item in this part are: very employable, employable, unsure, needs some improvement to be employable, and needs a lot of improvement to be employable. Instead of asking why the students are employable, and why the students may encounter challenges about their employability, respondents were asked to indicate the three most employable elements of the students' personal brand and three elements which need the most improvement, respectively. Each of the three ranks is to be given to one attribute/element only.

Additionally, as a method of triangulating the results of hypothesis testing to evaluate if a significant relationship exists between personal branding and employability, opinions or perceptions of the respondents were solicited about the matter. The following response alternatives are provided: yes, to a big extent; yes to some extent; it depends on the field of engineering; not always, it is a case to case basis; and not really, employability is a matter of luck.

As the fifth item for Part 4, the respondents were also asked to indicate the level of importance of selected skills for the students' employability. The response options are the same as the most of Part 2: very important, important, somewhat important, neither important nor unimportant, and absolutely not important.

Part 5 consists of just one item, an open-ended question asking only the employer respondents for suggestion/s on how the employability of engineering graduates can be enhanced either within or outside the education system. This part addresses the fifth objective of the study (Sec. 1.1.4) and the eighth research question (Sec. 1.3.8) - *What recommendations can be offered to improve the employability of engineering students and graduates based on the evidence gathered?*

The secondary research instrument is a personal branding worksheet (Appendix 3). A digital and hard copy of the template was distributed to the student-respondents who were then given instructions to complete the worksheet. The worksheets can, thus be submitted to the researcher or sent by email to the researcher's email address. Students were given enough time to complete the worksheet, but they were followed up by short messaging system (SMS) or email about the progress of the worksheet. Student-respondents were also provided the researcher's contact details in case they have questions about the worksheet.

3.3.2. Pilot Testing

A pilot testing is defined as the process of trying out a research instrument to evaluate whether it will perform its intended use before it is administered in a study (Burke and Christensen 212). In this sense, the pilot study is regarded as a preliminary test of the survey questionnaire. As suggested in Burke & Christensen, the pilot study may be conducted among five to ten people as a minimum (212). The rationale for carrying out a pilot study is to find out if there are any points of confusion that participants may experience while answering the questionnaire. The researcher, therefore, requested the pilot study participants, who were

engineering students not included in the study proper as respondents, to be open about how they understand the questionnaire items or to point out items which do not appear very clear.

Results of the pilot testing are also used to measure the validity and reliability of the rating scales used for the study variables. Validity and reliability of the measurement scales are necessary when a survey questionnaire is used to evaluate hypotheses (Smith 53). The next sub-section discusses the validity and reliability of the research instrument used for the present study.

3.3.3. Validity and Reliability

Jackson defined validity as to whether or not a research instrument measures what it purports to measure (71). In this study, face and content validity were assessed. As explained in Jackson, face validity is a measure of "the extent to which a measurement appears valid on its surface". (72) Content validity, on the other hand, assesses the extent to which a research instrument predicts behavior, ability or skill or whatever constructs are being quantified. (71-72).

Face and content validity of the research instruments were evaluated with the assistance of two experts: a human resource director from a Bangalore-based company and an internationally-published researcher/data scientist from the Philippines. The latter was referred to this researcher by a contact from the academe. The first draft of the questionnaire prepared by this researcher was enhanced based on the recommendations of the two experts prior to pilot testing. Additional refinements were made based on inputs from the pilot study respondents.

Questionnaire reliability was measured using internal consistency. Internal consistency is a form of reliability which evaluates how consistently the items in a questionnaire measure the construct being investigated. Cronbach alpha was used to assess internal consistency since the primary research instrument utilized scaling (Zikmund, Barry, Carr, and Griffin 302-309). The minimum acceptable value of Cronbach alpha for any scale would be over 0.7 as suggested by Cronbach, the originator of the test himself. (qtd. in Harris 187)

Only the common questionnaire-rating scale items for Parts 2 and 3, and the last item in Part 4 which consists of 24 sub-items were assessed for internal consistency reliability. All of the items included in the reliability analysis used five-point Likert scales. Part 1, four items in Part 4, and Part 5 were not included in the reliability test anymore because: (1) Part 1 comprises only of basic profile questions; (2) some items in Part 4 are one-item scales and others were not actually scales, but ranks; and (3) Part 5 utilized an open-ended question. The personal branding

worksheet, which consists of open-ended questions, was only subjected to face and content validity.

The obtained values of Cronbach alpha for the three scales of the primary research instrument assessed are as follows: for Part 2, Cronbach alpha was 0.853; for Part 3, Cronbach alpha was 0.925; and for item 29 of Part 4 which consists of 24 sub-items, Cronbach alpha was 0.836. An internal consistency reliability greater then 0.7 is acceptable. Workings for the Cronbach alpha reliability analysis using the software Statistical Package for the Social Sciences (SPSS) Version 17 (IBM Statistics) is shown as Appendix 5.

3.4. Data Collection Procedure

Data collection from the three groups of respondents was carried out in the following manner:

1. Permission was requested from the institution of higher learning where the student- and faculty respondents were recruited for the conduct of pilot testing, and later for the administration of the research questionnaire. The letter also requests for a student list for the study sampling procedure. Within the same period, letters were sent by snail mail and email to companies for prospective employer-respondents.
2. After permission was granted, the questionnaire for the pilot study was administered among 10 engineering students in the school of technology in Bangalore where the students and faculty respondents were recruited for the study proper.
3. Results of the pilot study were processed and the instruments were validated and assessed for reliability. After the instrument quality was found satisfactory based on content and face validity, as well as internal consistency reliability, when applicable, the questionnaire was reproduced for administration.
4. Request for the student list was followed up and subsequently obtained. The sampling procedure is explained in sufficient detail under Section 3.2 was carried out to come up with the final list of student- and faculty respondents. Within about the same period, the final list of the employer-respondents was finalized.
5. Prior to administration of the research questionnaire, a short presentation was made to apprise the students about personal branding and its importance to their future employability. In coordination with a group of faculty members, the students were

assembled in a classroom and given final instructions about their voluntary participation in the study, the integration of the informed consent form in the cover letter, and the guidelines for the submission of resumes and student portfolio. There were several batches since all students can not be accommodated in one room. Students were given enough time to complete the worksheets and respond to the research questionnaire.

6. It took more than two months to retrieve all the questionnaires, worksheets, resumes and sets of portfolio for 70 students. When all the instruments and supporting documents are complete, they were reproduced so that the worksheets, resumes, and portfolios can be turned over to the respective faculty- and employer-evaluators at the same time.
7. Almost two months elapsed before all the answered questionnaires were retrieved from faculty- and employer-respondents. Within this period, questionnaires from the students were processed into a data matrix. This was accomplished with the aid of a coding guide as explained in the last sub-section in the methodology. Also, as the answered questionnaires were retrieved from faculty members and employers, data processing was carried out within the same day if possible, to save time.
8. When the data processing was completed, statistical data analysis was carried out.

3.5. Statistical Treatment of Data

Statistical treatment of data gathered was processed to develop the data matrix with the aid of a coding guide. Individual cases comprise the rows of the matrix, whereas the responses for each item in the questionnaire make up the columns. Following is the integrated coding guide for the slightly different questionnaires for the three groups of respondents, and a discussion of the statistical treatment of the data.

3.5.1 Coding Guide

Questionnaire responses were coded by representing the response alternatives to a numerical equivalent. The coding scheme is shown below for each scale used in the primary research instrument (i.e., the questionnaire). Red font color was used to emphasize the coding.

Part : Respondent's Profile

For Students:

1. What is your course or specialization?

(1) ☐ Civil Engineering

(2) ☐Computer Engineering

(3) ☐ Electrical and Electronics Engineering or Electronics and Communications Engineering

2. In what year-level are you now?

(4) ☐ Fourth Year

(3) ☐ Third Year

For Faculty Members:

1. What academic department do you represent?

(1) ☐ Civil Engineering

(2) ☐ Computer Engineering

(3) ☐ Electrical and Electronics Engineering or Electronics and Communications Engineering

2. What is your current academic rank in the institution?

(1) ☐ Professor

(2) ☐ Associate Professor

(3) ☐ Assistant Professor

For Employers:

1. What engineering specializations do you hire in the company? Please check all that apply.

(1) ☐ Civil Engineering

(2) ☐ Computer Engineering

(3) ☐ Electrical and Electronics Engineering or Electronics and Communications Engineering

2. What is your current designation/position in the company?

(5) ☐ HR Director

(8) ☐ HR Manager

(6) ☐ HR Supervisor

(7) ☐ Other: Please specify:

Part 2. Personal Branding and its Most Important Attributes

For Student-Respondents Only:

1. I have started creating my personal brand.
    a. Of course, even before college. (1)
    b. Yes, during the last few years in college. (2)
    c. I'm not sure, I need guidance. (3)
    d. I heard about the term, but I really do not know if: it is applicable in my case, if I really need one, or what that means. (4)
    e. No. I am clueless about that term. (5)
    f. Other - Please specify: _____

2. As a student, personal branding refers to finding out how I can create value for my reputation, both as a learner and as a prospective employee.
    a. I strongly agree. (5)
    b. I agree to some extent. (4)
    c. I neither agree nor disagree. (3)
    d. I slightly disagree. (2)
    e. I strongly disagree. (1)

Common Items for all Respondents:

Items 3-13 for students or 1-11 for faculty- and employer-respondents have the same response alternatives, so only one item was shown to save space.

3. Audience: The audience comprise of people one intends to evoke interest in the personal brand. Examples are: professors, prospective employers, prospective clients, etc.
    a. Very important (5)
    b. Important (4)
    c. Somewhat important (3)
    d. Neither important nor unimportant (2)
    e. Absolutely not important (1)

Part 3: Perception of Students' *Personal Brand Among the Three Groups of Respondents*

Items 14-24 for students or 12-22 for faculty- and employer-respondents have the same response alternatives, so only one item was shown to save space.

14. Audience
    a. Excellent (5)
    b. Very good (4)
    c. Good or average (3)
    d. Fair or below average (2)
    e. Poor (1)

Part : Students' Employability

1. How employable are you?
    a. Very employable (5)
    b. Employable (4)
    c. Unsure (3)
    d. Needs some improvement to be employable (2)
    e. Needs a lot of improvement to be employable (1)

2. What are the top three most employable elements of your personal brand? Kindly check the rank beside each element. Strictly one element per rank position please. (Coded based on the box number marked by respondent)

☐1 ☐2 ☐3 - Audience needs
☐1 ☐2 ☐3 - Points of comparison
☐1 ☐2 ☐3 - Unique strengths
☐1 ☐2 ☐3 - Delivery capability
☐1 ☐2 ☐3 - Brand character
☐1 ☐2 ☐3 - Mission
☐1 ☐2 ☐3 - Vision
☐1 ☐2 ☐3 - Personality attributes
☐1 ☐2 ☐3 - 360º feedback
☐1 ☐2 ☐3 - Goals

3. What three elements of your personal brand need improvement. Rank the element which needs the biggest improvement as 1. (Coded based on the box number marked by respondent)

☐1 ☐2 ☐3 - Audience needs
☐1 ☐2 ☐3 - Points of comparison
☐1 ☐2 ☐3 - Unique strengths
☐1 ☐2 ☐3 - Delivery capability
☐1 ☐2 ☐3 - Brand character
☐1 ☐2 ☐3 - Mission
☐1 ☐2 ☐3 - Vision
☐1 ☐2 ☐3 - Personality attributes
☐1 ☐2 ☐3 - 360º feedback
☐1 ☐2 ☐3 - Goals

4. Do you think that personal branding influences a student's employability
    a. Yes, to a big extent (5)

b. Yes, to some extent (4)
c. It depends on the field of engineering (3)
d. Not always, it is on a case to case basis (2)
e. Not really, employability is a matter of luck. (1)

5. Kindly provide the level of importance of the following skills in your assessment of a work applicant's employability by marking the appropriate box. The numbers beside each box signify the level of importance: **1** indicates *absolutely not important*; **2** indicates *neither important or unimportant*; **3** *indicates somewhat important*; **4** indicates *important*; and **5** indicates *very important.*

(Coded based on the box number marked by respondent; there were 24 skills in this item)

3.5.2. Descriptive Statistics

Frequency and percentage distributions were utilized to describe the following variables: (1) how elements of personal branding are prioritized by the student-respondents; (2) how the three groups of respondents evaluated student employability; and (3) how each element of the student-respondents' personal brand is perceived by the three groups of respondents. Means and standard deviations were also used to numerically describe the central tendency and dispersion of the quantifiable study variables from the mean. To facilitate qualitative description and interpretation of the summated ratings provided by the respondents for the variables considered in the study, the following statistical limits had been arbitrarily set based on the data gathered. Table 4 was developed for the scales pertaining to personal branding in Parts 2 and 3, whereas Table 5 was prepared for the scales in Part 4 pertaining to employability. Meanwhile, Table 6 was for the scales for the student-group only in Part 2. The last item in Part 4 follows the same scale as Part 2 (level of importance) in Table 4.

Table 4

Interpretation guide for the rating scales in parts 2 and 3 of the questionnaire common for all respondent-groups

Statistical Limits	**Qualitative Descriptors**	
	Part 2 **Level of Importance of the Personal Branding Elements**	**Part 3** **Perceptions of the Students' Personal Brands**
4.50-5.00	Very important (VI)	Excellent (EX)
3.50-4.49	Important (IM)	Very Good (VG)
2.50-3.49	Somewhat important (SI)	Good (GO)
1.41-2.49	Neither important nor unimportant (NE)	Fair (FA)
1.00-1.40	Absolutely not important (NI)	Poor (PO)

Table 5a

Interpretation guide for the rating scales in Part 4 of the questionnaire common for all respondent-groups

Statistical Limits	**Qualitative Descriptors for Part 4**	
	Assessment of the Students' Employability (Original)	**Personal Branding influences Employability**
4.50-5.00	Highly employable	Yes, to a big extent
4.00-4.49	Very employable	Yes, to some extent
3.00-3.99	Employable	Depends on the field
2.00-2.69	Needs some improvement to be employable	Case to-case basis
1.00-1.99	Needs a lot of improvement to be employable	Matter of luck

Table 5b

Interpretation guide for the rating scales in Part 4 of the questionnaire common for all respondent-groups

Statistical Limits	**Qualitative Descriptors for Part 4**
	Assessment of the Students' Employability (Recalibrated)
4.50-5.00	Highly employable

4.00-4.49	Very employable
2.70-3.99	Employable
2.00-2.69	Needs some improvement to be employable
1.00-1.99	Needs a lot of improvement to be employable

Table 6

Interpretation guide for the rating scales in Part 2 for the student group Only

Statistical Limits	**Qualitative Descriptors for Part 2 (Students Only)**	
	Started Developing Personal Brand	**Reaction to Definition Given for Personal Branding**
4.50-5.00	Of course, even before college	Strongly agree
3.50-4.49	Yes, during the last few years in college	Agree to some extent
2.50-3.49	Not sure, guidance needed	Neutral
1.41-2.49	Heard about the term	Slightly disagree
1.00-1.40	Clueless about the term	Strongly disagree

3.5.3. Inferential Statistics

Inferential statistics was used to test the four hypotheses evaluated in the study. Two-tailed or non-directional analysis was utilized with the hypothesized level of significance at 0.05. This implies that if the test statistic yields a level of significance (Sig. in SPSS) or p-value less than 0.05, the null hypothesis is rejected and the alternative hypothesis is accepted. Otherwise, if the p-value is equal to or greater than 0.05, the research evidence failed to reject the null hypothesis as explained in Rubin (115).

One way analysis of variance (ANOVA) was utilized to investigate if there are significant differences in the level of importance attributed by the student-respondents to the elements of their personal brand. One way ANOVA tests for differences in the means of three or more groups defined on only one independent variable. (Howell 397) This part of the statistical treatment of data addresses the second research question (Sec. 1.3.2) - *Are there significant*

differences in the level of importance attributed by the students o the elements/attributes of their personal brands?

Meanwhile, independent samples t-test was used to evaluate significant difference in the assessment of the employability of the student-respondents by the faculty- and employer-evaluators. This statistical test is applied to evaluate the difference between two independent sample means. (Howell 345) This inferential treatment of the data collected resolves the sixth research question (Sec. 1.3.6) - *Are there significant differences in the employability of the students based on the assessment of faculty members and prospective employers*?

Kendall's coefficient of concordance, represented by the symbol W, was calculated to check if there is significant agreement in the perceptions of the students' personal brands among the three groups of respondent. The W statistic measures how much a set of three or more raters tend to agree among a set of ordinal data. (Kraska-Miller 186) It answers the fourth research question (Sec. 1.3.4) - *Is there a significant concordance in the respondents perceptions of the students' personal branding*?

To evaluate the significant relationship between personal branding and employability, the Pearson correlation coefficient was used. Jackson explained that the rationale of calculating a correlation is to "assess the degree of relationship between two variables. (156). Hypothesis testing using the Pearson correlation coefficient resolves the seventh research question (Sec. 1.3.7) - *Is there a significant relationship between personal branding and employability*? Interpretation of the strength of the relationship was made based on Salkind. (92) A scan of the interpretation guide found at the bottom of the page is shown below.

Size of the Correlation	Coefficient General Interpretation
.8 to 1.0	Very strong relationship
.6 to .8	Strong relationship
.4 to .6	Moderate relationship
.2 to .4	Weak relationship
.0 to .2	Weak or no relationship

Fig. 3. Interpretation Guide for the Pearson Correlation Coefficient from Neil Salkind, Statistics for People Who (Think They) Hate Statistics. 5th ed. (Thousand Oaks: Sage, 2014). 92. Print.

4. Presentation of Results

This section presents the results of the study whose main objective is to investigate the relationship between personal branding and employability among engineering students in Bangalore, India. Eight research questions were addressed to assess the five variables identified in the study using descriptive and inferential statistics. The findings are presented following the sequence of the research questions posed in Section 1.3

4.1. Level of Importance of Personal Branding Elements among the Student-Respondents

Table 7 displays the results of the study regarding the level of importance attributed by the student-respondents on the different elements of personal branding. Results are shown from the most important down to the least important element based on the students' view of personal branding. Interpretation of the mean was discussed in the methodology under Sec. 3.5.2. Standard deviations were also provided to gain insight about how the student responses were dispersed from the mean

Table 7

Level of importance of personal branding elements

Element	**Mean**	**Standard Deviation**	**Level of Importance**
Delivery capability	4.06	0.778	Important
Goals	3.86	0.785	Important
Audience	3.46	0.502	Somewhat important
Unique strengths	3.44	0.500	Somewhat important
Personality attributes	2.96	0.824	Somewhat important
Brand character	2.89	0.772	Somewhat important
Mission	2.53	0.503	Somewhat important
Audience needs	2.50	0.504	Somewhat important
Points of comparison	2.50	0.504	Somewhat important
Vision	2.47	0.503	Neither important nor unimportant
360º feedback	2.37	1.119	Neither important nor unimportant

As reflected in Table 7, delivery capability, with a mean of 4.06 (important), was given the highest rating on importance by the student-respondents among the elements of personal branding considered in the study. Together with delivery capability, goals (mean, 3.86) comprise the only other element which garnered an 'important' rating in the scale. Seven of the remaining personal branding elements were rated 'somewhat important' by the students: audience (3.46); unique strengths (3.44); personality attributes (2.96); brand character (2.89); mission (2.53); audience needs (2.50); and points of comparison (2.50). Meanwhile, vision and 360º feedback were rated as 'neither important nor unimportant' with respective means of 2.47 and 2.37.

The least important element (i.e., 360º feedback) according to student ratings also registered the most diverse responses, since it has the highest standard deviation (SD). It was also observed that five of the seven elements adjudged as 'somewhat important' showed the lowest (SDs). This may be taken to mean that student opinions of their level of importance were more consistent than the other elements. On the other hand, the two elements with the highest means posted higher SDs. The phenomenon may be attributed to ratings which consist of varying scores in the higher range of the scale or most 4 and 5 with some 3's.

According to some of the employer-evaluators who were informally asked to comment on the findings among the student-respondent during questionnaire retrieval from the evaluators, the findings are cues that students are not completely aware about the importance of personal branding. They claimed that on their end (the evaluators), all the personal branding elements were rated a 4 or a 5. A cursory inspection of faculty- and employer-respondent/evaluator ratings revealed that the comment was quite true of the data gathered. The implications are discussed under Sec. 4.3 so as not to preempt disclosure of the findings.

4.2. Differences in the Level of Importance attributed by Students to Personal Brand Elements

Table 8 shows the findings of one-way ANOVA on the level of importance attributed by the student-respondents to the different elements of personal branding. Students were grouped by their engineering specialization: civil engineering (CE); computer engineering CoE; and electrical and electronics/electronics and communications engineering (EE/ECE). All the 11 elements of personal branding considered in this study were included in the table.

Table 8

Differences in the level of importance attributed to personal branding elements

Element	Group	Source of	Sum of	df	Mean	F	Sig.

	Means		**Error**	**Squares**		**Square**		**(p-value)**
Audience	CE	3.40	Between	0.655	2	0.327	1.312	0. 276
	CoE	3.35	Within	16.717	67	0.250		
	EE/ECE	3.57	Total	17.371	69			
Audience Needs	CE	2.45	Between	0.100	2	0.050	0.193	0.825
	CoE	2.55	Within	17.400	67	0.260		
	EE/ECE	2.50	Total	17.500	69			
Points of Comparison	CE	2.55	Between	0.100	2	0.050	0.193	0.825
	CoE	2.45	Within	17.400	67	0.260		
	EE/ECE	2.50	Total	17.500	69			
Unique Strengths	CE	3.55	Between	0.655	2	0.327	1.320	0.274
	CoE	3.50	Within	16.617	67	0.248		
	EE/ECE	3.33	Total	17.271	69			
Delivery Capability	CE	4.10	Between	3.255	2	1.627	2.831	0.066
	CoE	4.35	Within	38.517	67	0.575		
	EE/ECE	3.83	Total	41.771	69			
Brand Character	CE	3.15	Between	2.119	2	1.060	1.822	0.170
	CoE	2.85	Within	38.967	67	0.582		
	EE/ECE	2.73	Total	41.086	69			
Mission	CE	2.50	Between	0.026	2	0.013	0.050	0.951
	CoE	2.55	Within	17.417	67	0.260		
	EE/ECE	2.53	Total	17.4443	69			
Vision	CE	2.40	Between	0.226	2	0.113	0.440	0.646
	CoE	2.45	Within	17.217	67	0.257		
	EE/ECE	2.53	Total	17.443	69			
Personality Attributes	CE	2.85	Between	0.655	2	0.327	0.475	0.624
	CoE	2.90	Within	46.217	67	0.690		
	EE/ECE	3.07	Total	46.871	69			
360º Feedback	CE	2.20	Between	0.876	2	0.438	0.343	0.711
	CoE	2.40	Within	85.467	67	1.276		
	EE/ECE	2.47	Total	86.343	69			
Goals	CE	3.95	Between	0.721	2	0.361	0.577	0.564
	CoE	3.70	Within	41.850	67	0.625		
	EE/ECE	3.90	Total	42.571	69			

Results of hypothesis testing to assess whether significant differences can be detected in the level of importance attributed by the students to personal branding elements are shown in summarized form in Table 8. The mean of the responses of each group of students, that is: CE, CoE, and EE/ECE found in the second column of Table 8 reveals that the group values are not distant from each other. Thus, a cursory examination of the p-values of the F-statistic(s) computed should lead one to a conclusion that there were no significant differences among the responses of the three groups of student-respondents as to the level of importance of all the 11 elements of personal branding considered in this study. All the p-values (represented as Sig. in SPSS) were higher than the hypothesized level of significance (α=0.05) in this study. Thus, the first null hypothesis of the study formulated in Sec.1.2.1 was accepted.

Research data showed that there is no significant difference in the level of importance attributed by the students to the elements of their personal brands. Corollary to the findings in Table 7 and the opinion given by evaluators, the importance given to elements of personal branding were not as high as they expected. However, Waldman has a ready answer which can be quoted to explain the study findings: " ...despite the importance of personal branding in modern job search, many job seekers still don't understand what it's all about" (ch. 4).

Moreover, responses to supplemental questions in the primary research instrument can be used to sustain Waldman's argument. To the first item in Part 2 exclusively for student respondents, only 21 of the 70 students or 30% confirmed that they had started building their personal brand during their last few years in college and none of the student-respondents claimed to have started creating their personal brand before college. Some 19 students (27.14%) were not even sure if they had started creating one. There were 26 students (37.14%) who confessed that they have heard about the term but they do not know if personal branding is applicable to their case, if they really need one, or what personal branding really means. In fact, there were 4 students (5.71%) who admitted they are clueless about personal branding.

With the personal branding awareness statistics bared in the preceding paragraph, the short a short presentation conducted by this researcher to apprise the students about personal branding and its importance to their future employability, as well as the inputs integrated in the questionnaire, were not sufficient to provide the students a crash course on Personal Branding 101. This has implications on the current curriculum of engineering students which needs to be

reinforced with lessons that will introduce and equip students with skills in creating their unique personal brands for the sake of their future employability.

4.3. Perceptions on the Students' Personal Brands among the 3 Respondent Groups

The summary data in Table 9 presents the findings of the study about the perception of the three groups of respondents pertaining the students' personal branding as assessed by the faculty- and employer-evaluators based on the personal branding worksheets accomplished by the students as the secondary research instrument. The students provided self-ratings of their own work. The mean of the evaluator assessment of each element of the students' personal brands was interpreted aided by the corresponding table in Sec. 3.5.2.

As to the self-ratings provided by the students, three elements were rated excellent: brand character (4.57); personality attributes (4.50); and 360º feedback (4.59). Two elements were rated very good: points of comparison (4.00) and goals (4.43). The rest of the 11 elements were self-rated 'good' by the student-respondents: audience (3.43); audience needs (3.47); unique strengths (3.94); delivery capability (3.89); mission (3.47); vision and (3.49).

Without the benefit of Kendall's coefficient of concordance yet, descriptive evidence showed that the students' self-ratings were not congruent with the mean of the evaluators' assessment. However, it was also evident that even the two evaluator groups' assessments were not very similar. What is apparent in the mean of the evaluator assessments and the self-ratings is that the assessment means were always lower than the self-rating means.

Table 9

Perceptions of the personal brands among the three groups of respondents

Element	Student Mean	Interpretation	Faculty Mean	Interpretation	Employer Mean	Interpretation
Audience	3.43	Good	2.46	Fair	2.51	Fair
Audience Needs	3.47	Good	2.46	Fair	2.47	Fair
Points of	4.00	Very Good	2.43	Fair	2.49	Fair

Comparison						
Unique Strengths	3.94	Good	2.96	Fair	2.94	Fair
Delivery Capability	3.89	Good	2.83	Fair	2.91	Fair
Brand Character	4.57	Excellent	2.74	Fair	2.54	Fair
Mission	3.47	Good	3.10	Good	2.57	Fair
Vision	3.49	Good	3.03	Good	2.61	Fair
Personality Attributes	4.50	Excellent	4.03	Very Good	3.51	Good
360º Feedback	4.59	Excellent	4.14	Very Good	2.46	Fair
Goals	4.43	Very Good	3.84	Good	2.41	Fair
Mean	**3.97**	**Good**	**3.12**	**Good**	**2.68**	**Fair**

As may be gleaned from Table 9, the element 360º feedback, which garnered the highest rating among the students (4.59, excellent), posted a very good rating (mean, 4.14) among the faculty evaluators, but managed only a fair rating (mean, 2.46) among the employers. It is highly possible that the students who were given higher rating under 360º feedback, had developed and cultivated their personal brand among the faculty-respondents who assessed their branding and employability. (Vitberg) Meanwhile, brand character, which registered a students' self-rating mean of 4.57 (excellent) was assessed to be 'fair' by both groups of evaluators: 2.74 among faculty-respondents and 2.54 among employer-respondents. As a whole, the group means for each element of personal branding suggests that the three groups of respondents have different perceptions of how the students' personal brands were created. The next sub-section will verify this conjecture by hypothesis testing.

4.4. Agreement or Concordance in the Perception of the Students' Personal Brands

Result of hypothesis testing to assess evaluate if a significant agreement can be identified among the perceptions of the three groups of respondents about how the students' personal brands were communicated is shown in Table 10. The hypothesis was tested using Kendall's

coefficient of concordance (W). The Kendall W coefficient measures the level of consensus among the three groups about their evaluation of each element of the students' personal brands.

Table 10

Significant concordance among the three groups of respondents

Variables Considered	**Mean Ranks**	**N**	**df**	**Kendall Coefficient of Concordance (W)**	**Sig. (p-value)**	**Decision**
Audience	4.39	210	10	0.200	<0.001	Failed to Reject Null Hypothesis
Audience Needs	4.37					
Points of Comparison	5.08					
Unique Strengths	6.15					
Delivery Capability	5.91					
Brand Character	6.29					
Mission	5.27					
Vision	5.29					
Personality Attributes	8.76					
360º Feedback	7.49					
Goals	7.00					
Notes: 1. The Sig. (p-value) given is asymptotic. 2. The chi-square (χ^2) value of the data analyzed is 419.261						

As the values in Table 9 augured, Kendall's coefficient of concordance (W) is 0.20, which is closer to 0, shows that there is no consistency among the perceptions of the three groups of respondents about how the student brands were articulated based on the personal branding worksheet. With a p-value of less than 0.001, there was found a significant non-concordance in the ratings provided by the three-groups of respondents on their perceptions of the personal brands prepared by the students. Thus, the study data gathered failed to reject the third null hypothesis that there is no significant concordance in the respondents' perceptions of the students' personal branding as formulated in Sec. 1.2.3.

The given χ^2 value indicates a reasonable approximation of the sampling distribution of W. (Sheskin 1097). Conventional wisdom on the behavior of the χ^2 distribution shows that the sampling distribution is quite dispersed owing to the large χ^2 value (419.261). This further confirms Kendall's coefficient of concordance that the three groups of respondents have different perceptions of the students' personal brands ($W=0.200$; $n=210$; $p<0.001$) .

4.5. Employability of the Student-Respondents based on the Assessment of Faculty Members and Employers

Table 11 presents the study findings summarizing the employability prospects of the student-respondents based on the branding worksheet, resume, and student portfolio they prepared/submitted. The results are summarized in terms of frequency and percentage distributions, as well as the mean of the ratings given by the respondents. Qualitative descriptors of the mean were also provided.

Table 11

Frequency and percentage distribution of faculty- and employer respondents' assessment of the employability of students

Student Employability	**Faculty-Respondent Assessment**		**Employer-Respondent Respondent**	
	Frequency	**Percentage**	**Frequency**	**Percentage**
Highly Employable	0	0	0	0
Very Employable	0	0	0	0
Employable	52	74.28	1	1.43
Needs Some Improvement	18	25.72	69	98.57
Needs Substantial Improvement	0	0	0	0
Mean	**2.743** (Needs Some Improvement)		**2.014** (Needs Some Improvement)	

Employability ratings given by both groups of evaluators converge around only two Likert scale points, but the distribution in each rating is quite different, as depicted in Table 11. According to the faculty-respondents, 52 or about three-quarters of the student-respondents are employable, whereas the remaining one-quarter of the 70 respondents were evaluated to be requiring some improvement to be employable. However, on the part of the employer-

respondents, all but one of the respondents needs some improvement to be more employable. Only one student (1.43%) was evaluated as outright employable. In terms of the mean, the faculty members believe that the student group, as a whole, needs some improvement to be employable with a mean of 2.743. Practically the same verdict was given by the employer respondents, but with a lower mean of 2.014.

The findings are consistent with the present scenario in India. As discussed in the literature review, less than one fifth of Indian graduates have employable skills (Sarkar and Chaudhary). The study respondents, however, are not yet even graduates.

The higher rating among the faculty members may be brought about by positive interactions with the students which they evaluated as expressed in Montoya's definition of personal branding. (qtd. in Walliser 4, 5) It is also possible that by virtue of the faculty's previous interaction experiences with the students, the students were able to accrue some brand equity on their professors (Speak and McNally 60). In contrast, the employers performed a blind assessment and do not have any previous encounters as this was how the study was designed. It is, therefore, natural that based on Vitberg's explanation, the students have impressed their personal brand slightly among the faculty members they had previous interaction with.

Even if the study did not look into how students perceive their employability, the research instrument was practically similar among the three groups. Hence, data was available in this regard. The students were more optimistic of their employability than the faculty- and employer-respondents, and this is a common phenomenon as self-ratings tend to be higher in many studies. (qtd. in Clinton and Smith 92, 93) Some 43 out of 70 or 61.43% students thought that they are 'very employable', whereas the remaining 27 or 38.57% believe that they are 'employable'.

Aside from gathering data on how students perceive their employability, the primary instrument also inquired about their top three personal brand elements which are most employable, since the faculty and employees were also asked the same item. Note that this question simply validated respondent perceptions of the brand elements in a reworded form and it is expected that results here will tally with the findings under Se. 4.3. Four elements figured out in the top three most employable list among the students: delivery capability, brand character, personality attributes, and unique strengths. When the weighted mean of these elements were considered based on their position in the top three, the most employable elements

of their personal brand were: delivery capability (top); brand character (second); and personality attributes (third).

When the validating question was asked among the faculty evaluators, their top element based on the student personal brands they assessed was 360º feedback; their second choice was personality attributes; and their third choice was the brand goals. Their top three was consistent with the findings in Sec. 4.3, but the student group's ranking was not. Results of the validating question among the students imply that the students were deficient in their own self awareness, an important requisite of personal branding according to Morgan, i.e., weaving self awareness. (13)

Among the employer group, their top most employable elements of the student brand they evaluated were personality attributes (top), unique strengths (second), and delivery capability (third). Their rankings tallied with the findings among the employer group in Sec. 4.3. This suggests that the employer evaluators were focused on their role as respondent-evaluators in the study, like the faculty-respondents.

4.6. Differences in the Employability of the Students based on the Assessment of Faculty Members and Prospective Employers

Table 12 presents the findings of the study pertaining to the hypothesis formulated under Sec. 1.2.2. The null hypothesis was evaluated using independent samples t-test between the faculty- and employer-respondents at a hypothesized level of significance of 0.05. The accompanying Levene's test of homogeneity of variance among the responses was not satisfied, thus, instead of a df=138, the SPSS-adjusted df of 79.118 (in parentheses, column 3) was used to deal with the non-homogeneity of variance - an assumption that must be satisfied when using the t-test.

Table 12

Differences in the employability assessment performed by teachers and employers

Variable	**Mean Difference**	**Degrees of Freedom**	**t-statistic**	**Sig. (p-value)**	**Decision**
Employability	0.729	138 (79.118)	13.363	<0.001	Reject Null Hypothesis

Earlier results from Table 11 showed that the employability assessment made by the two groups of respondents registered means of 2.743 and 2.014, respectively, for faculty- and employer respondents. The difference between these means is displayed in column 2 (0.729). The independent samples t-test yielded a t-statistic of 13.363, with a corresponding p-value of <0.001. The computed p-value is less than the hypothesized level of significance of 0.05. Hence, the decision rule is to reject the null hypothesis and adopt the alternative hypothesis that there is a significant difference in the employability of the students based on the assessment of faculty members and employers ($t=13.363$; $df=79.118$; $p<0.001$).

The findings imply that the means, 2.743 and 2.014 are significantly different. This warranted a revisit of the arbitrarily defined statistical limits for employability in Sec. 3.5.2. If 2.014 fall within the 'needs some improvement' scale level of employability, then the scale must be adjusted to advance 2.743 to a higher level, i.e., 'employable' - to reflect the significant difference. Both the original and recalibrated scales are shown in Sec. 3.5.2.

4.7. Significant Relationship Between Personal Branding and Employability

To analyze if there is a significant relationship between personal branding and employability, the evaluator responses for Sec. 4.3 and Sec. 4.5 were compared using the Pearson correlation coefficient. This is the fourth, last and main hypothesis of the study. The hypothesized level of significance was also set at 0.05 like the three other hypotheses testing procedures.

Table 13

Significant relationship between personal branding and employability

Variables Correlated	**N**	**Pearson Correlation Coefficient (r)**	**Sig. (p-value)**	**Decision**
Personal Branding and Employability	140	0.833	<0.001	Reject Null Hypothesis

Table 13 presents the result of the correlation analysis to test the null hypothesis that there is no significant relationship between personal branding and employability. For each of the 70 student-respondents, the assessment of their personal brand worksheet for the 11 elements by the two groups of evaluators was averaged. This was inputted under the variable personal branding. The rating for employability under the first item of Part 4 of the primary research instrument was inputted in the correlation analysis as the variable employability. There was a total of 140 cases, since each of the students was evaluated by a faculty member and an employer.

Results revealed a Pearson correlation coefficient of 0.833. Using Salkind's interpretation guide, a correlation coefficient of 0.833 suggests a very strong relationship between the two variables being evaluated (92). A computed p-value of <0.001 implies that the relationship is significant since the computed level of significance is less than the hypothesized level of 0.05. Therefore, the decision rule is to reject the null hypothesis and accept the alternative hypothesis that there is a significant and strong relationship between personal branding and employability ($r=.833$; $n=140$; $p<0.001$).

4.8. Recommendations to Help Improve the Employability of Engineering Students and Graduates Based on the Evidence Gathered

To make this part of the study useful and beneficial among engineering students, responses from two other questions in the primary research instrument are summarized and discussed to help ground the recommendations. Suggested modalities to enhance the employability of engineering students and graduates were sourced from the employer responses to the open-ended question in Part 5 of the primary research instrument and inputs from literature and readings on employability.

Table 14 presents a summary to another validating question about the students' personal brands. This time, the respondents were requested to rank the three least employable elements of the students' personal brands. Students provided their self-ratings.

Table 15

Three least employable elements of the students' personal brands

Least Employable Elements	**Students**	**Faculty Members**	**Employers**

Rank 1	Points of Comparison (28.83)	Points of Comparison (30.67)	Goals (31.67)
Rank 2	Mission (19.00)	Audience (22.67)	360º Feedback (21.67)
Rank 3	Vision (18.67)	Audience Needs (14.83)	Audience Needs (12.67)

Weighted mean was used to come up with the most common answers on the top 3 where the first ranked elements is assigned a weight of 3, the second ranked element a weight of 2, and the third ranked element a weight of 1. Like in the top 3 most employable branding elements, student responses did not jive with their responses in Sec. 4.3. However, the evaluator responses were consistent with their inputs in Sec. 4.3.

The findings in Table 15 imply that a set of recommendations to enhance student employability should focus on the weak points of the students' personal branding like, how points of comparison can be more articulately communicated. They should also be given more insights about how they can be more visible in the market for their prospective audience and to more adequately impress their chosen audience about how they can fill audience needs in the job market. Moreover, their personal branding should be able to capture their goals and express them in their brands quite convincingly. Without the benefit of previous interaction and similar experiences, prospective employers should be provided with sufficient feedback through their applicant's personal brand statement.

A survey among prospective employers is not complete if inputs will not be gathered about the skills they need most on the job. This data will help in making improvements in the current Indian engineering curriculum to address the skills-requirement gap between the supply and demand of labor. A total of 24 skills were presented to the employer-respondents based on the Blom and Saeki (14) study to find out what the prospective employers of engineering graduates desire from their new employees. The summarized data from the employer-respondent responses presented in Table 16 are classified in terms of core employable skills, communication skills, and professional knowledge.

Table 16

Skills desired from engineering graduates

Core Employable Skills	**Professional/Technical Skills**	**Communication Skills**
Integrity (4.73)	Proficiency with modern tools (4.47)	English communication skills (4.60)
Reliability (4.67)	Creativity (4.40)	Basic computer skills (4.53)
Teamwork (4.60)	(4.33)	Written communication skills (4.47)

Flexibility (4.47) Understanding and carrying out directions (4.53) Willingness to learn (4.47) Empathy (4.20) Self discipline (4.07) Self-motivation (3.93) Entrepreneurship skills (3.87)	Knowledge of contemporary issues (4.27) Problem-solving (4.20) System design proficiency (4.13) Client service skills (4.07) Mathematical/scientific/technological knowledge (4.00)	Know-how on engineering-related experiments (4.40) Data analysis (4.40) Technical skills (4.33) Verbal communication skills (4.27) Advance computer skills (4.20)

Findings in the present study concurred with the earlier findings of Blom and Saeki (14) that the core employable skills consists of the soft skills as shown in the literature review were regarded by employers as more important that engineering/professional knowledge. The highest level of importance was attributed by the employer respondents on core skills like integrity, reliability, teamwork, flexibility, etc. as well as communication skills, particularly English, basic computer literacy, written communication skills, etc. These skills were rated higher by employers as more employable than the hard skills like mathematical/scientific/ technological knowledge and system design proficiency. Thus, the findings concur with previous research claiming that employers look more on soft skills when they decide which applicants are employable (Omar et al. 103; Kumar and Hsiao 18; Bancino and Zevalkink 21)

Findings from Table 16 direct the recommendations towards heavier emphasis on soft skills and communication proficiency vis a vis the hard engineering technology skills. Following are the recommendations articulated by the employers to enhance the employability of engineering graduates:

1. Integrate personal branding topics in applicable subjects early in the curriculum, so that engineering education can prepare the students for future employment. The best courses where this can be blended are English and research courses/subjects.
2. Engineering curricula should include a life-long continuing professional education to keep graduates abreast of rapidly advancing technology, as well as the soft skills that engineering firms continuously require.
3. Students who are in currently enrolled in the traditional curricula can benefit from a series of seminar-workshops about effectively communicating their personal brands to enhance their employability.

4. The academe should revisit the engineering curricula and update them in cooperative consultation with the industry and engineering firms to close the gap in the skills-job mismatch.
5. Any learning activities aimed at modernizing resume-writing for students' future employability need to be integrated with training on improving their personal brands. Employers will get to know an applicant more with an effective personal brand statement than an elaborate resume.
6. Students should be trained how to effectively express the 360º feedback in their personal brand. Success in communicating this feedback to the 'audience' can lead to a more succinct description of the audience need that the applicant intends to fulfill.
7. As pointed out early in the paper, there is quite an oversupply of labor in India, and the best chance of any applicant at finding a job commensurate with his academic preparation is to excel in capturing an audience for his/her personal brand and focusing on the specific needs of the audience.
8. Schools offering engineering education need to set up a committee or a department tasked with the transfer of technology and workplace know-how from the industry to the students, the future employees. This will help address the job and skills mismatch.
9. Employers always look into exploiting new technology and new knowledge. Thus, incoming employees should be able to fill-in this need.
10. Research and data-analysis are desired skills of engineering professionals. Schools need to train students in this field and personal brands should be communicated to stress these skills as unique strengths.
11. With the current advances in engineering technology, knowledge has a shelf-life. Institutions offering engineering education should continuously tailor-fit the curricula for emerging knowledge and technology.
12. Soft skills can not always be learned on the job. Schools are the best training lab for their very in-demand employee skills.
13. Engineering schools should not only utilize partnership with the industry for employment networking. These partnerships can be harnessed to close the labor market-skills mismatch. Teach the students to be employable by coordinating with the engineering companies about their knowledge and technology requirements.

14. The curricula should be designed with provisions for perpetual update and synchronicity with emerging developments in the field. Lessons can always be updated to accommodate changes which can not wait for the next curricular change.
15. Each engineering course/subject should be a dry laboratory of the workplace. Students should be trained in the workplace context.

5. Conclusions and Recommendations

In the light of the study findings presented in Section 4, the following conclusions are drawn and the study recommendations are forwarded.

5.1. Conclusions

5.1.1. Students are not sufficiently aware about personal brands per se, and this was illustrated in the generally low level of importance they attributed to many elements of personal branding.

5.1.2. There were no significant differences among the three student groups with respect to the level of importance they attributed to the different personal branding elements, which signifies that the deficiency in awareness of personal branding shown above is not confined to any one or two engineering specializations in general, but to all students in the institution regardless of specialization.

5.1.3. Perceptions on the efficacy of the personal brands communicated by the students differed. This suggests that the students' personal brands were not successful in conveying the message they wish to communicate to their intended audience.

5.1.4. Kendall's coefficient of concordance confirmed the above conjecture that the students did not send the right message to their intended audience in the personal brands they prepared.

5.1.5. The faculty-evaluators believed that the students were 'employable' in the Likert scale arbitrarily designed for the study, whereas the employers thought the same students need some improvement to be employable. This is either a case of the faculty knowing the students' capabilities more than the employers or the findings simply confirmed the trend that few engineering graduates in general are, indeed employable based on statistics.

5.1.6. The t-test showed and confirmed the above findings that faculty and employer assessment of employability significantly differed. The personal brands failed to convey the intended message to the employers.

5.1.7. The very strong and significant relationship between personal branding and employability has strong implications for institutions offering engineering education to educate students to be more employable by effectively communicating their personal brands to their intended audience in the job market.

5.1.8. Employer recommendations to enhance the employability of the student-respondents should be taken seriously and carried over to entire institution.

5.2. Recommendations

5.1.1. The concerned school authorities, in cooperation with this researcher, may enjoin their students to attend a series of seminar-workshops on personal branding since they are almost about to finish the engineering program and will later search the job market for employment.

5.1.2. The most potent approach to educate the students about their personal brands and how this can help boost their employability is through the conduct of self awareness activities and effectively conveying their brand message to prospective employers

5.1.3. Students should also be assisted in delimiting the target audience in the job market to those whose needs could be efficiently addressed grounded on the students' education background and preparation. In this regard, academe-industry linkages can be tapped to close the gap in the jobs and skills mismatch.

5.1.4. Engineering schools should set up a training laboratory in school to acclimatize students as to the environmental context of the engineering workplace. The scheme will not only enhance the students' employable skills but will offer the students a better perspective of their own self on-the-job and will help improve how they communicate their personal brand to their intended future audience. This experience should precede on-the-job training placements in the industry.

5.1.5. Engineering students should not be educated to be 'engineers in isolation' since this modality can bring out their best technical and scientific skills, but not the soft skills. Soft skills are learned not as students, but as employees. Engineering classes

had to be set up as a natural breeding ground for soft skills. In this regard, the faculty has a great role to play.

5.1.6. Personal branding activities must be introduced in appropriate subjects through seamlessly designed instructional plans to turn the academe into a working atmosphere that supports continuous professional education institution.

5.1.7. The very strong and significant relationship between personal branding and employability should be used by the academe to turn in graduates that can be assimilated in the job market. Individual student projects should be creatively assigned by faculty with the end in view of honing students in effectively communicating their personal brand. An example would be to prepare assignments that had to be presented in the form of a letter to a superior. This sharpens not just the students' engineering and technical skills, but also their communication skills.

5.1.8. Implements employer recommendations in Sec. 4.8 by integrating these into revitalized engineering curricula for the next batch of students.

5.3 Limitations of the Study and Directions for Future Research

A minor limitation of the study is that it did not adopt a completely probability or randomized design, but a compromise between probability design via stratified sampling and non-probability design via purposive sampling. Yet, this is the best way to frame the research design to answer all the research problems posed.

Another limitation, not of the study itself, but of the data gathered, is the strong and significant relationship between personal branding and employability. The statistical test was legitimate, but the circumstances behind the data are quite alarming. Practically, the employer assessment of employability deserves more weight than the faculty assessment. The significant relationship was, however detected on a generally fair personal brand ratings and low level of employability.

Thus, future research imperatives should look into data when a batch of students had been sufficiently educated about personal branding. With the students more aware of the importance of personal branding to their future employability, it is posited that they will put in their best effort to create an effective personal brand. That would be the best time to validate the findings of the present study that, indeed, personal branding is significantly and highly correlated

to employability. These findings should be able to offer the country's unemployment problems a "shot in the arm".

Notes

[1]Lee, Cheng-Few, John Lee, and Alice Lee. *Statistics for Business and Financial Economics*. 3rd ed. New York: Springer, 2013. Print.

[2]Whitley, Bernard, and Mary Kite. *Principle of Research in Behavioral Science*. 3rd ed. New York: Routledge, 2013. Print.

[3]Manser, Martin. *Good Word Guide: The Fastest Way to Correct English - Spelling, Punctuation, Grammar and Usage*. 6th ed. London: Bloomsbury, 2003. Print.

[4]Modern Language Association. "How Do I Cite an eBook?" FAQ About the MLA Handbook. 6 March 2014. Web.

[5]Babbie, Earl. *The Practice of Social Research*. 13th ed. Belmont: Wadsworth-Cengage Learning, 2013. Print.

Works Cited

Bancino, Randy and Claire Zevalkink. "Soft Skills: The New Curriculum for Hard Core Technical Professionals." *Techniques: Connecting Education and Careers* 82.5 (2007): 20-22. Print.

Bence, Brenda. *Master the Brand Called YOU™*. Nevada: Global Insight Communications, 2014. DjVu file[6].

Blom, Andreas and Hiroshi Saeki. *Employability and Skill Set of Newly Graduated Engineers in India*. Washington, DC: The World Bank, 2011. PDF file.[7]

Borner, Hans. "Precision Polymers - Modern Tools to Understand and Program Macromolecular Interaction." *Macromolecular Rapid Communications* 32.2 (2011): 115-126. Print.

Johnson, R. Burke and Larry Christensen, L. *Educational Research: Quantitative, Qualitative, and Mixed Approaches*. 5th ed. Thousand Oaks: Sage, 2014. Print.

[6] This is an eBook.
[7] This is an eBook.

Carbery, Ronan and Thomas Garavan. "Organizational restructuring and downsizing: Issues Related to Learning, Training, and Employability of Survivors". *Journal of European Industrial Training: A Journal for HRD Specialists* 29.6 (2005): 488-508. Print.

Chromy, James. (2006). "Survey Sampling". *Handbook of Complementary Methods in Eeducation Research.* Eds. In Judith Green, Gregory Camilli and Patricia Elmore. Mahwah, NJ: Lawrence Erlbaum/American Educational Research Association, 2006. 641-654. Print.

Clinton, B. Douglas and Pamela Smith. "Instilling Student Responsibility with Team Contracts and Peer Evaluations." *Advances in Accounting Education: Teaching and Curriculum Innovations*. Eds. Bill Schwartz and Anthony Catanach, Jr. Bingley: Emerald Group, 2009. 81-102. Print.

Colton, David and *Covert, Robert. Designing and Constructing Instruments for Social Research and Evaluation*. San Francisco: Jossey-Bass/Wiley & Sons, 2007. Print.

De Vaus, David. *Research Design in Social Research*. Thousand Oaks: Sage, 2001. Print.

Chritton, Susan. *Personal Branding for Dummies*. Hoboken: Wiley, 2012. Print.

Faul, Franz, Axel Buchner, Edgar Eldfelder, and Albert-Georg Lang. G*Power. Vers. 3.1.2. Computer software. *Heinrich-Heine-University Dusseldorf*, 2009. Windows Vista, 4 MB, disk.

Fiorini, Mayra Maia. "Graduate Employability: What can Higher Education Do? - A Literature Review." *Skills Hive*. Web. 6 October 2014.

Folger, Robert and Russell Cropanzano. "Fairness Theory: Justice as Accountability" *Advances in Organizational Justice*. Eds. Jerald Greenberg and Russell Cropanzano. Stanford: Standford University Press, 2001. 1-55. Print.

Gravetter, Frederick and Lori-Ann Forzano. *Research Methods for the Behavioral Sciences*. 4th ed. Belmont: Wadsworth-Cengage Learning, 2012. Print.

Harris, Don. *Writing Human Factors Research Papers: A Guidebook*. Burlington: Ashgate, 2012.

Hellqvist, Johanna, Lina Karlsson, and Sara Udden. "Pistol or Swords: Which are the Most Useful Weapons in the War for Talent? - A Study of Business Students' Employability." Master Thesis. Umea University, 2008. Web. 4 October, 2014.

Hitchings, Molly. "The Importance of Personal Branding: How to Create and Maintain a Successful Personal Brand." Bachelor thesis. California Polytechnic State University, 2014. Print.

Honam an, Justin. *Make it Happen!: Live Out your Personal Brand*. Bloomington: iUniverse, 2008. Print.

Howell, David. *Fundamental Statistics for the Behavioral Sciences*. 8th ed. Belmont: Wadsworth-Cengage Learning.

Hsu, Chia-Chien and Brian Sandford. "Instrumentation." *Encyclopedia of Research Design*. Vol. 2. Ed. Neil Salkind. Thousand Oaks: Sage, 2010. 607-610. Print.

International Labor Organization. *Lifelong Learning in the Mechanical and Electrical Engineering Industries*. Geneva: International Labor Office, 2002. Print.

Kraska-Miller, Marie. *Nonparametric Statistics for Social and Behavioral Sciences*. Boca Raton, CRC Press-Taylor & Francis, 2014. Print.

Knight, Peter and Mantz Yorke. *Assessment, Learning and Employability*. Berkshire: Open University Press/McGraw-Hill Education, 2003.

Kumar, Sanjeev and J. Kent Hsiao. "Engineers Learn 'Soft Skills the Hard Way': Planting a Seed of Leadership in Engineering Classes." Leadership and Management in Engineering 7.1 (2007): 18-23. Print.

Lancaster, Thomas. "Teaching Students about Online Professionalism: Enhancing Student Employability Through Social Media." *Cutting-Edge Technologies and Social Media Use in Higher Education*. Eds. Vladlena Benson and Stephanie Morgan. Hershey: Information Science Reference - IGI Global, 2014. 320-341. Print.

Lodico, Marquerite, Dean Spaulding, and Katherine Voegtle. *Methods in Educational Research: From Theory to Practice*. 2nd ed. San Francisco: Jossey-Bass/Wiley, 2010. Web.

Maier, Pat, Anna Barney, and Geraldine Price. *Study Skills for Science, Engineering and Technology Students*. London: Pearson UK, 2013. PDF file[8].

Marshall, Patricia. *Special Topics in Social, Economic, and Behavioral Research Report Series No. 5: Ethical Challenges in Study Design and Informed Consent for Health Research in Resource-Poor Settings*. Geneva: World Health Organization, 2007. Print.

[8] This is an eBook.

Martella, Ronald, J. Ron Nelson, Robert Morgan, and Nancy Marchand-Martella. *Understanding and Interpreting Educational Research*. New York: Guilford, 2013. Print.

McNally, David and Karl Speak. *Be your Own Brand: A Breakthrough Formula for Standing Out from the Crowd*. San Franscisco: Berrett-Koehler, 2003. Print.

McQuaid, Ronald and Colin Lindsay. "The Concept of Employability." *Employability and Local Labor Markets*. Eds. Ronald McQuaid, Anne Green, and Mike Danson. New York: Routledge, 2006. 6-28. Print.

Mezak, Steve. *Software Without Borders: A Step-by-Step Guide to Outsourcing your Software Development*. Los Altos: Earthrise, 2006. Print.

Mitchell, Mark and Janina Jolley. *Research Design Explained*. 8th ed. Belmont: Wadsworth-Cengage Learning, 2013. Print.

Mobray, Kaplan. *The 10Ks of Personal Branding: (K)reate a Better You*. Bloomington: iUniverse, 2009. Print.

Morgan, Mark. "Personal Branding: Create Your Value Proposition". Strategic Finance. August 2011. Web. 29 September 2014.

Newman, Isadore, David Newman, and Carole Newman. "Writing Research Articles Using Mixed Methods: Methodological Considerations to Help you Get Published." *The Handbook of Scholarly Writing and Publishing*. Eds. Tonette Rocco, Tim Hatcher, et al. San Francisco: Jessey-Bass/Wiley & Sons, 2011. 191-208. Print.

Omar, Nik Hairi, Azmi Abdul Manaf, Rusyda Helma Mohd, Arena Che Kassim, and Khairani Abd. Aziz. "Graduates' Employability Skills Based on Current Job Demand through Electronic Advertisement". *Asian Social Science* 8.9 (2012): 103-110. Print.

Pool, Lorraine Dacre and Peter Sewell. "The Key to Employability: Developing a Practical Model of Graduate Employability". *Education + Training* 49.4 (2007): 277-289. Web. 2 October 2014.

Pulko, Susan and Samir Parikh. "Teaching Soft Skills to Engineers." International Journal of Electrical Engineering Education 40.5 (2003): 243-254. Print.

Rampersad, Hubert. *Authentic Personal Branding*. Charlotte: Information Age Publishing, 2009. Print.

Raosoft. "Sample Size Calculator." *Raosoft, Inc*. Web. 1 October 2014.

Rubin Allen. *Statistics for Evidence-Based Practice and Evaluation*. 3rd ed. Belmont: Brooks/Cole-Cengage Learning, 2013. Print.

Neil Salkind, *Statistics for People Who (Think They) Hate Statistics*. 5th ed. Thousand Oaks: Sage, 2014. Print.

Sarkar, Ashoke Kumar and Sanjiv Kumar Chaudhary. "Reasons for Low Employability of Engineering Graduates." *Business Today India*. 10 April, 2014. Web. 4 October 2014.

Sen, Anirban and Pankaj Mishra. "Degree in Hand, a Generation of Engineers Looks for Alternatives: The IT Industry Cannot Employ All the Engineers that India's Colleges are Churning Out." *Live Mint*. 20 June 2013. Web. October 4 2014.

Sharma, Reetu. "With One Out of Every Three Graduates Unemployed in India, Will Modi be Able to Fulfill His Promise?" *One India News*. 24 September 2014. Web. 25 September 2014.

Sheskin David. *Handbook of Parametric and Nonparametric Statistical Procedures*. 3rd ed. Boca Raton: Chapman & Hall/CRC, 2004. Print.

Shine. "List of Top Engineering and Infrastructure Companies" *Shine.com*. Web. 2 October 2014.

Smith, Timothy. "Measurement in Health Psychology Research." *The Oxford Handbook of Health Psychology*. Ed. Howard S. Friedman. New York: Oxford University Press, 2011. 42-72. Print.

Statistical Package for the Social Sciences. Vers. 17.0. Computer Software. *International Business Machines*, 2008. Windows Vista. 305.05 MB. disk.

Statsky, William. *Family Law: The Essentials*. 3rd ed. Stamford: Cengage Learning, 2004. Print.

Teddlie, Charles and Abbas Tashakkori. *Foundations of Mixed Methods Research: Integrating Quantitative and Qualitative Approaches in the Social and Behavioral Sciences*. Thousand Oaks: Sage, 2009. Print.

The Economic Times. "Number of Registered Companies in India Crosses 13-Lakh Mark." 16 July 2013. Web. 1 October 2014.

Tolmie, Andy, Daniel Mujis, and Erica McAteer. *Quantitative Methods in Educational and Social Research: Using SPSS*. New York: Open University Press, 2011. Print.

Vitberg, Alan. "Developing Your Personal Brand Equity: A 21st Century Approach". *Journal of Accountancy* 210.1 (2010): n. pag. Web. 29 September 2014.

Vogt, W. Paul, Diane Gardner, and Lynne Haeffele. *When to Use What Research Design*. New York: Guilford, 2012. Print.

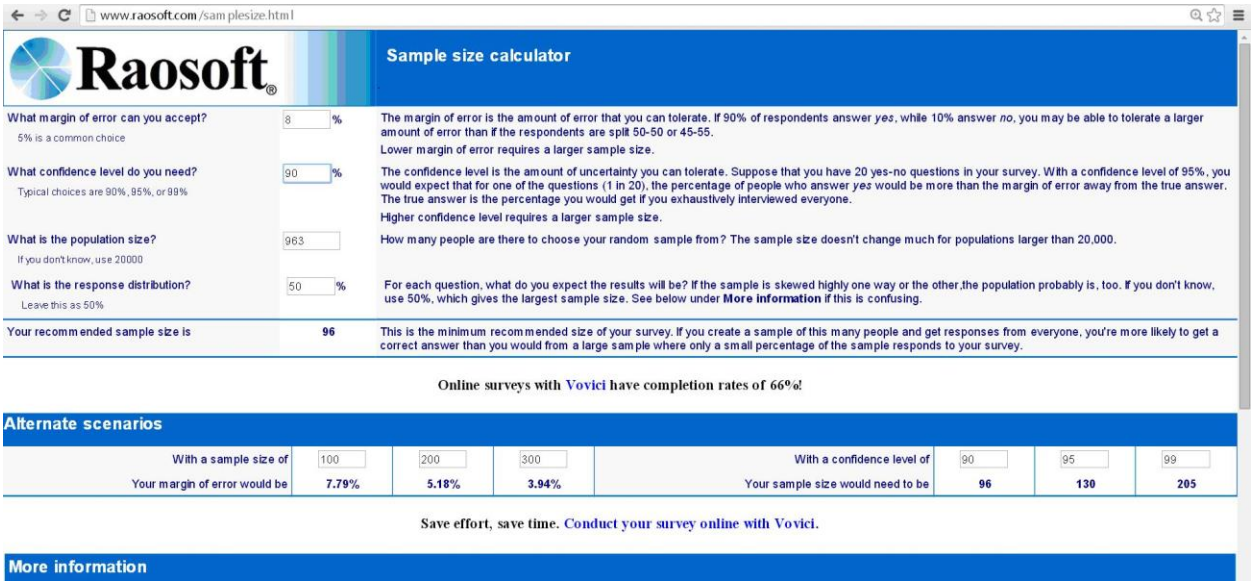
Waldman, Joshua. *Job Searching with Social Media for Dummies*. 2nd ed. Hoboken: John Wiley & Sons, 2013. Web[9].

Walliser, Antje. *Successful Branding: A Critical Examination of Customer Experience Management for Personal International*. Hamburg: Diplomica, 2006. Print.

Zikmund, William, Barry Babbin. Jon Carr, and Mitch Griffin. *Business Research Methods*. 9th ed. Mason: South-Western/Cengage Learning, 2013. Print.

Appendices

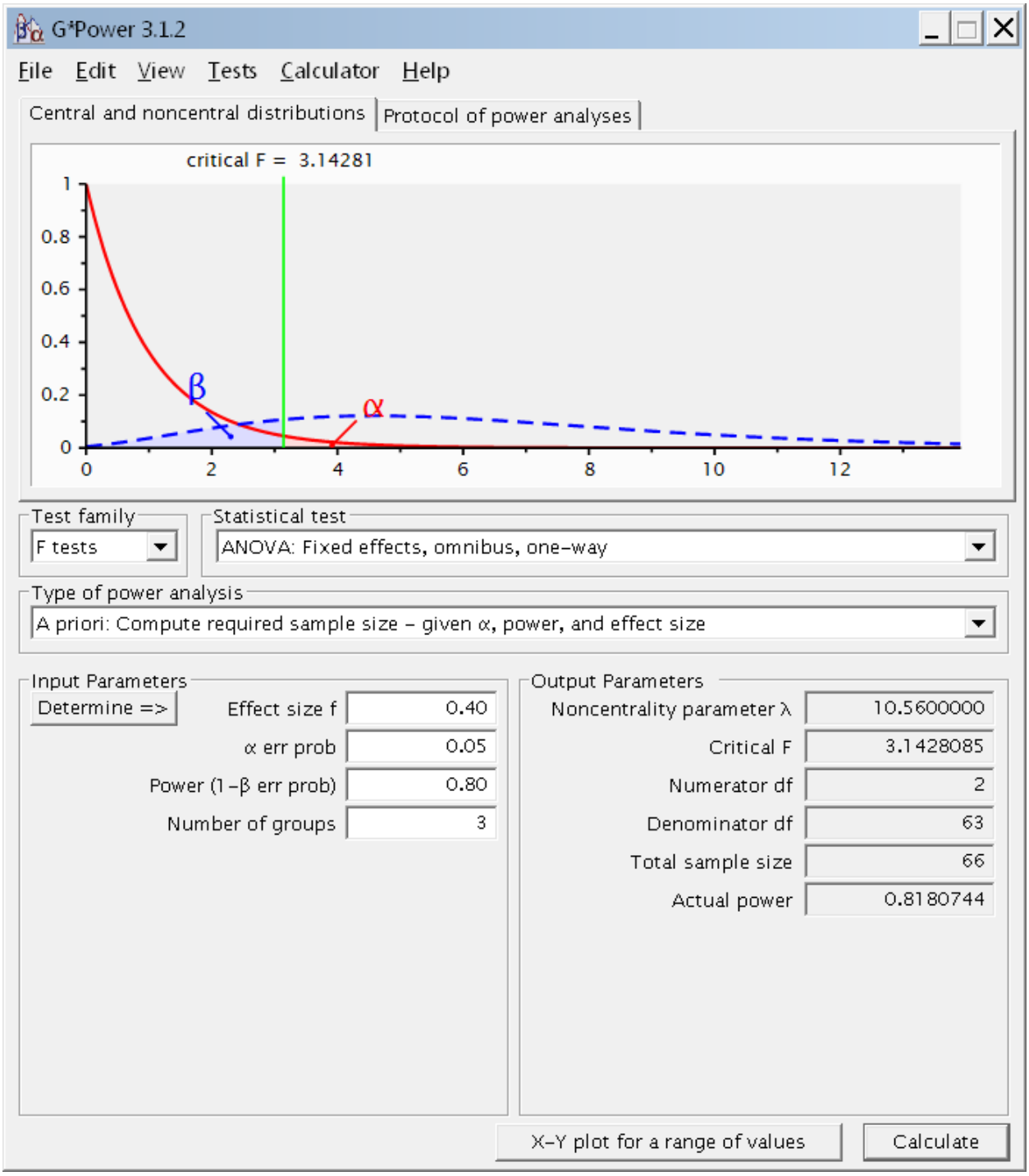
Appendix 1. Screenshot of Online Sample Size Calculation Output



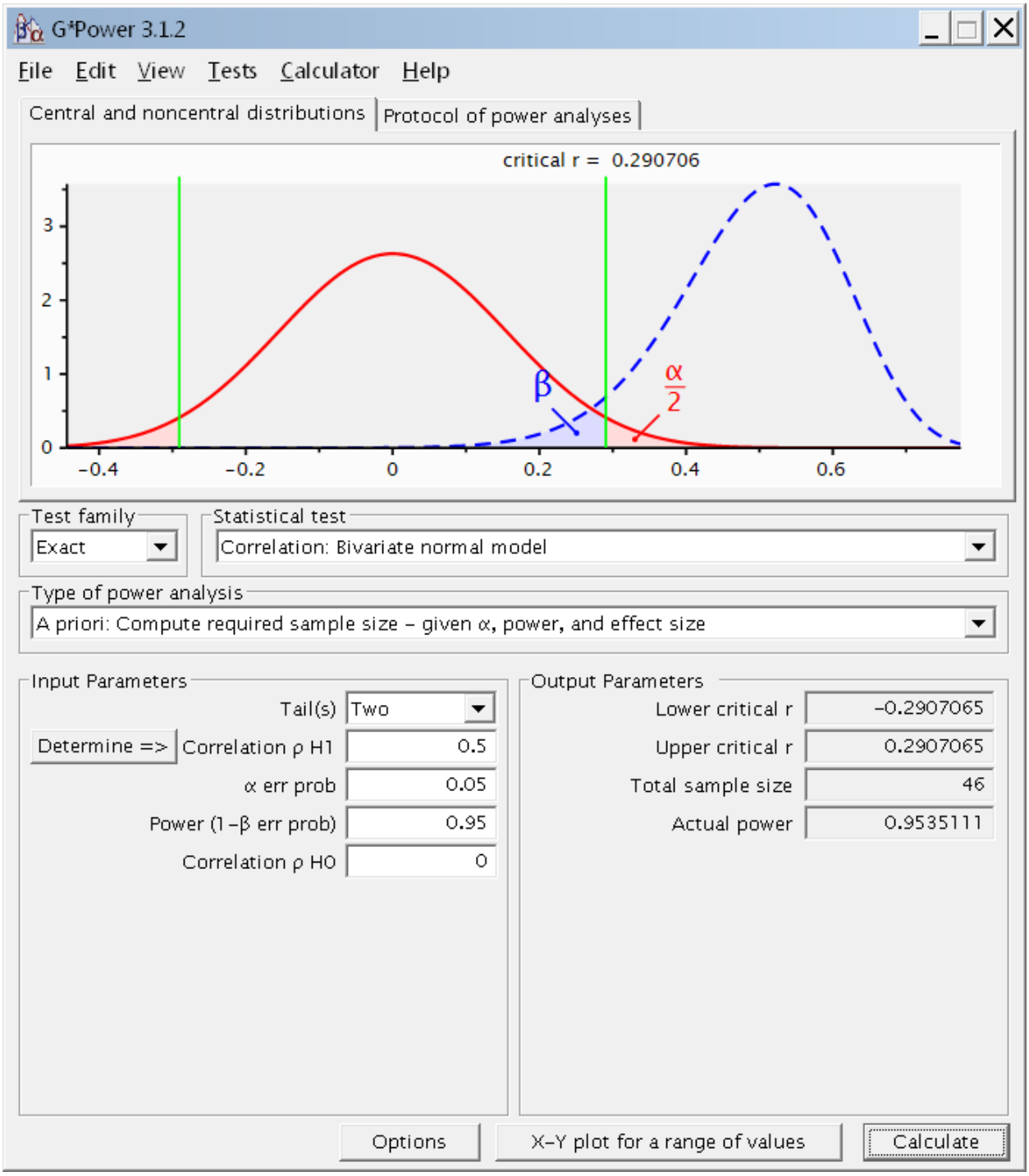
Appendix 2. Screenshots A-priori Statistical Power Calculation Output

For One-Way Analysis of Variance

[9] This is an eBook.



For Pearson's Correlation



Appendix 3. Research Instruments

Cover Letter (Common)

Dear Student/Faculty/Employer

The following questionnaire is being administered by this researcher for academic purposes - a PhD research paper. The study aims to analyze the relationship between personal branding and employability among engineering students in Bangalore, India. Hopefully, the findings of this study will contribute towards the alleviation of the unemployment challenges being faced by engineering graduates in the country. I am thinking of recruiting you to participate as one of the study respondents.

Being an educational research, your participation will only involve responding to a survey questionnaire. (In the case of students, you will be requested to complete a personal branding worksheet, submit your resume and your student portfolio.) Hence, there are no possible risks that may endanger your life, health, safety or general well-being as a participant. Your anonymity and privacy will be safeguarded during data processing and analysis. I assure you than none of your responses (or documents you submitted) can be traced back to you because after the study is defended and findings are disseminated, all the research instruments and the digital files will be shredded and/or carefully disposed.

The principle of informed consent will be applied in the study and the data-gathering procedure. Participants who agree to be part of the study are encouraged to understand (and ask questions to the researcher, if necessary) all the aspects of the study that may affect your decision to continue or withdraw your participation as respondent of the study. Even if you voluntarily agreed to be part of the study, you may withdraw your participation anytime without any reservations. Also, please do rest assured that all possible efforts will be made to recommend to the school management about how you can be best educated for future employability based on the study findings.

This part of the questionnaire-rating scale serves as your informed consent form. Your decision to return the completed questionnaire back to the researcher (together with the worksheet, resume, and portfolio in the case of students) is regarded equivalent to affixing your

signature of consent for your voluntary participation. My complete contact details are included in this questionnaire. Please feel free to communicate with me anytime during the period of the study, especially while you are filling in the questionnaire (or preparing the worksheet). My utmost gratitude for your voluntary participation.

Researchers Name

Murali S

Questionnaire-Rating Scale-For Student Respondents

Part 1. Respondent's Profile

Instruction: Kindly indicate your response by marking the appropriate box (☑ or ☒).

1. What is your course or specialization?

   ☐ Civil Engineering
   ☐ Computer Engineering
   ☐ Electrical and Electronics Engineering or Electronics and Communications Engineering

2. In what year-level are you now?

   ☐ Fourth Year
   ☐ Third Year

Part 2. Personal Branding and its Most Important Attributes

Instructions: Given the following statements, kindly provide your reaction by selecting one of the response alternatives that applies in your case or by indicating your reaction in the space provided for.

1. I have started creating my personal brand.
   a. Of course, even before college.
   b. Yes, during the last few years in college.

c. I'm not sure, I need guidance.
d. I heard about the term, but I really do not know if: it is applicable in my case, if I really need one, or what that means.
e. No. I am clueless about that term.
f. Other - Please specify: _____

2. As a student, personal branding refers to finding out how I can create value for my reputation, both as a learner and as a prospective employee.
    a. I strongly agree.
    b. I agree to some extent.
    c. I neither agree nor disagree.
    d. I slightly disagree.
    e. I strongly disagree.

Personal branding is theoretically defined as an "identity that stimulates precise, meaningful perceptions in its audience about the values that a person stands for" (Montoya, qtd. in Rampersad 7), where the term 'audience' refers to people whose interest in your personal brand is important in building up your good reputation. As students, and for the purpose of this study, you may consider your audience as your professors and other faculty members in your learning institution and your would-be employers. On the basis of the foregoing statements, please provide the level of importance of the following attributes in the personal brand you have created or intend to create in the near future. Each of the attributes is briefly explained to facilitate your completion of the questionnaire.

3. Audience: The audience comprise of people one intends to evoke interest in the personal brand. Examples are: professors, prospective employers, prospective clients, etc.
    a. Very important
    b. Important
    c. Somewhat important
    d. Neither important nor unimportant

e. Absolutely not important.

4. Audience needs: Need or needs refer to specific gap or gaps one intends to satisfy within the context of the audience. Examples are job positions which you expect to apply for such as technical staff, administrative assistant, a managerial role in an engineering firm, etc.
    a. Very important
    b. Important
    c. Somewhat important
    d. Neither important nor unimportant
    e. Absolutely not important.

5. Points of comparison: Points of comparison refer to the 'who and what' of where the personal brand conveyed will be compared to by the audience in regard to fulfilling a need. Engineering graduates are typically compared to other engineering graduates of the same field. However, depending on the need being filled, a starting position in an engineering firm that is being eyed as a trainee for a supervisory role may compare en engineering graduate with not so impressive leadership skills to an engineering or non-engineering undergraduate who has excellent leadership qualities.
    a. Very important
    b. Important
    c. Somewhat important
    d. Neither important nor unimportant
    e. Absolutely not important.

6. Unique strengths: Unique strengths of one's personal brand are the benefits that prospective audience can derive when one is entrusted to fill in a need. Unique strengths comprise a person's brand promise. Some experts call unique strengths as 'freak factor' which identifies a unique quality that makes one different and

unusual. Examples are: excellent written and oral communication skills, research expertise, leadership, and team-ship skills.

a. Very important
b. Important
c. Somewhat important
d. Neither important nor unimportant
e. Absolutely not important.

7. Delivery capability: Delivery capability refers to evidence or proof that the unique strengths in the personal brand being conveyed can be delivered. Examples of such proof are your education, work experience, training experience, etc.
    a. Very important
    b. Important
    c. Somewhat important
    d. Neither important nor unimportant
    e. Absolutely not important.

8. Brand character: Brand character reflects one personality, attitude and temperament.
    a. Very important
    b. Important
    c. Somewhat important
    d. Neither important nor unimportant
    e. Absolutely not important.

9. Mission: Mission refers to statements that spell out what one is all about and what one aims to do in life.
    a. Very important
    b. Important
    c. Somewhat important
    d. Neither important nor unimportant

e. Absolutely not important.

10. Vision: Vision reflects on the mission and elucidates a possibility about a person and his brand.
    a. Very important
    b. Important
    c. Somewhat important
    d. Neither important nor unimportant
    e. Absolutely not important.

11. Personality attributes: Personality attributes are descriptors of the face that one shows to the world. For example, a Google+ user, an engineer, developed the following personal brand: “Being smart doesn't have to be boring. Who says skill with numbers and letters are mutually exclusive events? ... I'm in my comfort zone with both numbers and letters”.
    a. Very important
    b. Important
    c. Somewhat important
    d. Neither important nor unimportant
    e. Absolutely not important.

12. 360º feedback: The 360º feedback attribute consists of the information about one’s character provided by people who have good and sufficient knowledge about a person. Such feedback may come from co-workers or friends.
    a. Very important
    b. Important
    c. Somewhat important
    d. Neither important nor unimportant
    e. Absolutely not important.

13. Goals: The goals in one’s personal branding refer to what one wants to achieve.

a. Very important
b. Important
c. Somewhat important
d. Neither important nor unimportant
e. Absolutely not important.

Part 3. Perception of Students' Personal Brand Among the Three Groups of Respondents

Instructions: Given the following statements and reflecting on the personal brand, resume, portfolio and other documents you submitted for evaluation, kindly provide your honest and confident assessment as to how each element of your personal brand measures up to the standards of your 'audience' by selecting one of the response alternatives that applies in your case.

2. Audience
    a. Excellent
    b. Very good
    c. Good or average
    d. Fair or below average
    e. Poor

3. Audience need(s)
    a. Excellent
    b. Very good
    c. Good or average
    d. Fair or below average
    e. Poor

4. Point(s) of comparison
    a. Excellent

   b. Very good
   c. Good or average
   d. Fair or below average
   e. Poor

5. Unique strengths
   a. Excellent
   b. Very good
   c. Good or average
   d. Fair or below average
   e. Poor

6. Delivery capability
   a. Excellent
   b. Very good
   c. Good or average
   d. Fair or below average
   e. Poor

7. Brand character
   a. Excellent
   b. Very good
   c. Good or average
   d. Fair or below average
   e. Poor

8. Mission
   a. Excellent
   b. Very good
   c. Good or average
   d. Fair or below average

e. Poor

9. Vision
    a. Excellent
    b. Very good
    c. Good or average
    d. Fair or below average
    e. Poor

10. Personality attributes
    a. Excellent
    b. Very good
    c. Good or average
    d. Fair or below average
    e. Poor

11. 360º feedback
    a. Excellent
    b. Very good
    c. Good or average
    d. Fair or below average
    e. Poor

12. Goals
    a. Excellent
    b. Very good
    c. Good or average
    d. Fair or below average
    e. Poor

Part 4. Students' Employability

Instructions: Kindly provide your honest and confident assessment as to how employable you are based on the personal brand, resume, portfolio and other documents you submitted for evaluation.

1. How employable are you?
    a. Highly employable
    b. Very employable
    c. Employable
    d. Needs some improvement to be employable
    e. Needs a lot of improvement to be employable

2. What are the top three most employable elements of your personal brand? Kindly check the rank beside each element. Strictly one element per rank position please.
    ☐1 ☐2 ☐3 - Audience needs
    ☐1 ☐2 ☐3 - Points of comparison
    ☐1 ☐2 ☐3 - Unique strengths
    ☐1 ☐2 ☐3 - Delivery capability
    ☐1 ☐2 ☐3 - Brand character
    ☐1 ☐2 ☐3 - Mission
    ☐1 ☐2 ☐3 - Vision
    ☐1 ☐2 ☐3 - Personality attributes
    ☐1 ☐2 ☐3 - 360º feedback
    ☐1 ☐2 ☐3 - Goals

3. What three elements of your personal brand that need improvement. Rank the element which needs the biggest improvement as 1.
    ☐1 ☐2 ☐3 - Audience needs
    ☐1 ☐2 ☐3 - Points of comparison
    ☐1 ☐2 ☐3 - Unique strengths
    ☐1 ☐2 ☐3 - Delivery capability
    ☐1 ☐2 ☐3 - Brand character

☐1 ☐2 ☐3 - Mission
☐1 ☐2 ☐3 - Vision
☐1 ☐2 ☐3 - Personality attributes
☐1 ☐2 ☐3 - 360º feedback
☐1 ☐2 ☐3 - Goals

4. Do you think that personal branding will influences your employability?
    a. Yes, to a big extent
    b. Yes, to some extent
    c. It depends on the field of engineering
    d. Not always, it is on a case to case basis
    e. Not really, employability is a matter of luck.

Questionnaire-Rating Scale-For Faculty Respondents

Part 1. Respondent's Profile

Instruction: Kindly indicate your response by marking the appropriate box (☑ or ☒).

1. What academic department do you represent?

☐ Civil Engineering
☐ Computer Engineering
☐ Electrical and Electronics Engineering or Electronics and Communications Engineering

2. What is your current academic rank in the institution?

☐ Professor
☐ Assistant Professor
☐ Associate Professor

Part 2. Personal Branding and its Most Important Attributes

Personal branding is theoretically defined as an "identity that stimulates precise, meaningful perceptions in its audience about the values that a person stands for" (Montoya, qtd. in Rampersad 7), where the term 'audience' refers to people whose interest in your personal brand is important in building up your good reputation. Please provide the level of importance of the following attributes in the personal brand created by the students. Each of the attributes is briefly explained to facilitate your completion of the questionnaire.

1. Audience: The audience comprise of people one intends to evoke interest in the personal brand. Examples are: professors, prospective employers, prospective clients, etc.
    a. Very important
    b. Important
    c. Somewhat important
    d. Neither important nor unimportant
    a. Absolutely not important.

2. Audience needs: Need or needs refer to specific gap or gaps one intends to satisfy within the context of the audience. Examples are job positions which you expect to apply for such as technical staff, administrative assistant, a managerial role in an engineering firm, etc.
    a. Very important
    b. Important
    c. Somewhat important
    d. Neither important nor unimportant
    b. Absolutely not important.

3. Points of comparison: Points of comparison refer to the 'who and what' of where the personal brand conveyed will be compared to by the audience in regard to fulfilling a need. Engineering graduates are typically compared to other engineering graduates of the same field. However, depending on the need being

filled, a starting position in an engineering firm that is being eyed as a trainee for a supervisory role may compare en engineering graduate with not so impressive leadership skills to an engineering or non-engineering undergraduate who has excellent leadership qualities.

   a. Very important
   b. Important
   c. Somewhat important
   d. Neither important nor unimportant
   e. Absolutely not important.

4. Unique strengths: Unique strengths of one's personal brand are the benefits that prospective audience can derive when one is entrusted to fill in a need. Unique strengths comprise a person's brand promise. Some experts call unique strengths as 'freak factor' which identifies a unique quality that makes one different and unusual. Examples are: excellent written and oral communication skills, research expertise, leadership, and team-ship skills.

   a. Very important
   b. Important
   c. Somewhat important
   d. Neither important nor unimportant
   e. Absolutely not important.

5. Delivery capability: Delivery capability refers to evidence or proof that the unique strengths in the personal brand being conveyed can be delivered. Examples of such proof are your education, work experience, training experience, etc.

   a. Very important
   b. Important
   c. Somewhat important
   d. Neither important nor unimportant
   e. Absolutely not important.

6. Brand character: Brand character reflects one personality, attitude and temperament.
    a. Very important
    b. Important
    c. Somewhat important
    d. Neither important nor unimportant
    e. Absolutely not important.

7. Mission: Mission refers to statements that spell out what one is all about and what one aims to do in life.
    a. Very important
    b. Important
    c. Somewhat important
    d. Neither important nor unimportant
    e. Absolutely not important.

8. Vision: Vision reflects on the mission and elucidates a possibility about a person and his brand.
    a. Very important
    b. Important
    c. Somewhat important
    d. Neither important nor unimportant
    e. Absolutely not important.

9. Personality attributes: Personality attributes are descriptors of the face that one shows to the world. For example, a Google+ user, an engineer, developed the following personal brand: “Being smart doesn't have to be boring. Who says skill with numbers and letters are mutually exclusive events? ... I'm in my comfort zone with both numbers and letters”.
    a. Very important
    b. Important

c. Somewhat important
d. Neither important nor unimportant
e. Absolutely not important.

10. 360º feedback: The 360º feedback attribute consists of the information about one's character provided by people who have good and sufficient knowledge about a person. Such feedback may come from co-workers or friends.
    a. Very important
    b. Important
    c. Somewhat important
    d. Neither important nor unimportant
    e. Absolutely not important.

11. Goals: The goals in one's personal branding refer to what one wants to achieve.
    a. Very important
    b. Important
    c. Somewhat important
    d. Neither important nor unimportant
    e. Absolutely not important.

Part 3. Perception of Students' Personal Brand Among the Three Groups of Respondents

Instructions: Given the following statements and reflecting on the personal brand, resume, portfolio and other documents submitted for evaluation, kindly provide your honest and confident assessment as to how each element of the students' personal brands measure up to the standards of their 'audience' by selecting one of the response alternatives.

1. Audience
    a. Excellent
    b. Very good
    c. Good or average
    d. Fair or below average

    e. Poor

2. Audience need(s)
    a. Excellent
    b. Very good
    c. Good or average
    d. Fair or below average
    e. Poor

3. Point(s) of comparison
    a. Excellent
    b. Very good
    c. Good or average
    d. Fair or below average
    e. Poor

4. Unique strengths
    a. Excellent
    b. Very good
    c. Good or average
    d. Fair or below average
    e. Poor

5. Delivery capability
    a. Excellent
    b. Very good
    c. Good or average
    d. Fair or below average
    e. Poor

6. Brand character

a. Excellent
b. Very good
c. Good or average
d. Fair or below average
e. Poor

7. Mission
    a. Excellent
    b. Very good
    c. Good or average
    d. Fair or below average
    e. Poor

8. Vision
    a. Excellent
    b. Very good
    c. Good or average
    d. Fair or below average
    e. Poor

9. Personality attributes
    a. Excellent
    b. Very good
    c. Good or average
    d. Fair or below average
    e. Poor

10. 360º feedback
    a. Excellent
    b. Very good
    c. Good or average

d. Fair or below average
e. Poor

11. Goals
    a. Excellent
    b. Very good
    c. Good or average
    d. Fair or below average
    e. Poor

Part 4. Students' Employability

Instructions: Kindly provide your honest and confident assessment as to how employable the students are based on the personal brand, resume, portfolio and other documents they submitted for evaluation.

1. How employable are you?
    a. Very employable
    b. Employable
    c. Unsure
    d. Needs some improvement to be employable
    e. Needs a lot of improvement to be employable

2. What are the top three most employable elements of their personal brand? Kindly check the rank beside each element. Strictly one element per rank position please.
    ☐1 ☐2 ☐3 - Audience needs
    ☐1 ☐2 ☐3 - Points of comparison
    ☐1 ☐2 ☐3 - Unique strengths
    ☐1 ☐2 ☐3 - Delivery capability
    ☐1 ☐2 ☐3 - Brand character
    ☐1 ☐2 ☐3 - Mission

☐1 ☐2 ☐3 - Vision

☐1 ☐2 ☐3 - Personality attributes

☐1 ☐2 ☐3 - 360º feedback

☐1 ☐2 ☐3 - Goals

3. What three elements of their personal brand that need improvement. Rank the element which needs the biggest improvement as 1.

   ☐1 ☐2 ☐3 - Audience needs

   ☐1 ☐2 ☐3 - Points of comparison

   ☐1 ☐2 ☐3 - Unique strengths

   ☐1 ☐2 ☐3 - Delivery capability

   ☐1 ☐2 ☐3 - Brand character

   ☐1 ☐2 ☐3 - Mission

   ☐1 ☐2 ☐3 - Vision

   ☐1 ☐2 ☐3 - Personality attributes

   ☐1 ☐2 ☐3 - 360º feedback

   ☐1 ☐2 ☐3 - Goals

4. Do you think that personal branding will influence their employability?

   f. Yes, to a big extent

   g. Yes, to some extent

   h. It depends on the field of engineering

   i. Not always, it is on a case to case basis

   j. Not really, employability is a matter of luck.

Questionnaire-Rating Scale-For Employer Respondents

Part 1. Respondent's Profile

1. What engineering specializations do you hire in the company? Please check all that apply.

☐ Civil Engineering
☐ Computer Engineering
☐ Electrical and Electronics Engineering or Electronics and Communications Engineering

2. What is your current designation/position in the company?

☐ HR Director
☐ HR Manager
☐ HR Supervisor
☐ Other: Please specify:

Part 2. Personal Branding and its Most Important Attributes

Personal branding is theoretically defined as an "identity that stimulates precise, meaningful perceptions in its audience about the values that a person stands for" (Montoya, qtd. in Rampersad 7), where the term 'audience' refers to people whose interest in your personal brand is important in building up your good reputation. Please provide the level of importance of the following attributes in the personal brand created by the students. Each of the attributes is briefly explained to facilitate your completion of the questionnaire.

1. Audience: The audience comprise of people one intends to evoke interest in the personal brand. Examples are: professors, prospective employers, prospective clients, etc.
    a. Very important
    b. Important
    c. Somewhat important
    d. Neither important nor unimportant
    e. Absolutely not important.

2. Audience needs: Need or needs refer to specific gap or gaps one intends to satisfy within the context of the audience. Examples are job positions which you expect to apply for such as technical staff, administrative assistant, a managerial role in an engineering firm, etc.
    a. Very important
    b. Important
    c. Somewhat important
    d. Neither important nor unimportant
    e. Absolutely not important.

3. Points of comparison: Points of comparison refer to the 'who and what' of where the personal brand conveyed will be compared to by the audience in regard to fulfilling a need. Engineering graduates are typically compared to other engineering graduates of the same field. However, depending on the need being filled, a starting position in an engineering firm that is being eyed as a trainee for a supervisory role may compare en engineering graduate with not so impressive leadership skills to an engineering or non-engineering undergraduate who has excellent leadership qualities.
    a. Very important
    b. Important
    c. Somewhat important
    d. Neither important nor unimportant
    e. Absolutely not important.

4. Unique strengths: Unique strengths of one's personal brand are the benefits that prospective audience can derive when one is entrusted to fill in a need. Unique strengths comprise a person's brand promise. Some experts call unique strengths as 'freak factor' which identifies a unique quality that makes one different and unusual. Examples are: excellent written and oral communication skills, research expertise, leadership, and team-ship skills.

a. Very important
b. Important
c. Somewhat important
d. Neither important nor unimportant
e. Absolutely not important.

5. Delivery capability: Delivery capability refers to evidence or proof that the unique strengths in the personal brand being conveyed can be delivered. Examples of such proof are your education, work experience, training experience, etc.
    a. Very important
    b. Important
    c. Somewhat important
    d. Neither important nor unimportant
    e. Absolutely not important.

6. Brand character: Brand character reflects one personality, attitude and temperament.
    a. Very important
    b. Important
    c. Somewhat important
    d. Neither important nor unimportant
    e. Absolutely not important.

7. Mission: Mission refers to statements that spell out what one is all about and what one aims to do in life.
    a. Very important
    b. Important
    c. Somewhat important
    d. Neither important nor unimportant
    e. Absolutely not important.

8. Vision: Vision reflects on the mission and elucidates a possibility about a person and his brand.
    a. Very important
    b. Important
    c. Somewhat important
    d. Neither important nor unimportant
    e. Absolutely not important.

9. Personality attributes: Personality attributes are descriptors of the face that one shows to the world. For example, a Google+ user, an engineer, developed the following personal brand: “Being smart doesn't have to be boring. Who says skill with numbers and letters are mutually exclusive events? ... I'm in my comfort zone with both numbers and letters”.
    a. Very important
    b. Important
    c. Somewhat important
    d. Neither important nor unimportant
    e. Absolutely not important.

10. 360º feedback: The 360º feedback attribute consists of the information about one’s character provided by people who have good and sufficient knowledge about a person. Such feedback may come from co-workers or friends.
    a. Very important
    b. Important
    c. Somewhat important
    d. Neither important nor unimportant
    e. Absolutely not important.

11. Goals: The goals in one’s personal branding refer to what one wants to achieve.
    a. Very important
    b. Important

c. Somewhat important
d. Neither important nor unimportant
e. Absolutely not important.

Part 3. Perception of Students' Personal Brand Among the Three Groups of Respondents

Instructions: Given the following statements and reflecting on the personal brand, resume, portfolio and other documents submitted for evaluation, kindly provide your honest and confident assessment as to how each element of the students' personal brands measure up to the standards of their 'audience' by selecting one of the response alternatives.

1. Audience
    a. Excellent
    b. Very good
    c. Good or average
    d. Fair or below average
    e. Poor

2. Audience need(s)
    a. Excellent
    b. Very good
    c. Good or average
    d. Fair or below average
    e. Poor

3. Point(s) of comparison
    a. Excellent
    b. Very good
    c. Good or average
    d. Fair or below average
    e. Poor

4. Unique strengths
    a. Excellent
    b. Very good
    c. Good or average
    d. Fair or below average
    e. Poor

5. Delivery capability
    a. Excellent
    b. Very good
    c. Good or average
    d. Fair or below average
    e. Poor

6. Brand character
    a. Excellent
    b. Very good
    c. Good or average
    d. Fair or below average
    e. Poor

7. Mission
    a. Excellent
    b. Very good
    c. Good or average
    d. Fair or below average
    e. Poor

8. Vision
    a. Excellent

b. Very good
c. Good or average
d. Fair or below average
e. Poor

9. Personality attributes
    a. Excellent
    b. Very good
    c. Good or average
    d. Fair or below average
    e. Poor

10. 360º feedback
    a. Excellent
    b. Very good
    c. Good or average
    d. Fair or below average
    e. Poor

11. Goals
    a. Excellent
    b. Very good
    c. Good or average
    d. Fair or below average
    e. Poor

Part 4. Students' Employability

Instructions: Kindly provide your honest and confident assessment as to how employable the students are based on the personal brand, resume, portfolio and other documents they submitted for evaluation.

1. How employable are you?
    a. Very employable
    b. Employable
    c. Unsure
    d. Needs some improvement to be employable
    e. Needs a lot of improvement to be employable

2. What are the top three most employable elements of their personal brand? Kindly check the rank beside each element. Strictly one element per rank position please.
    ☐1 ☐2 ☐3 - Audience needs
    ☐1 ☐2 ☐3 - Points of comparison
    ☐1 ☐2 ☐3 - Unique strengths
    ☐1 ☐2 ☐3 - Delivery capability
    ☐1 ☐2 ☐3 - Brand character
    ☐1 ☐2 ☐3 - Mission
    ☐1 ☐2 ☐3 - Vision
    ☐1 ☐2 ☐3 - Personality attributes
    ☐1 ☐2 ☐3 - 360º feedback
    ☐1 ☐2 ☐3 - Goals

3. What three elements of their personal brand that need improvement. Rank the element which needs the biggest improvement as 1.
    ☐1 ☐2 ☐3 - Audience needs
    ☐1 ☐2 ☐3 - Points of comparison
    ☐1 ☐2 ☐3 - Unique strengths
    ☐1 ☐2 ☐3 - Delivery capability
    ☐1 ☐2 ☐3 - Brand character

☐1 ☐2 ☐3 - Mission

☐1 ☐2 ☐3 - Vision

☐1 ☐2 ☐3 - Personality attributes

☐1 ☐2 ☐3 - 360º feedback

☐1 ☐2 ☐3 - Goals

4. Do you think that personal branding will influence their employability?
    k. Yes, to a big extent
    l. Yes, to some extent
    m. It depends on the field of engineering
    n. Not always, it is on a case to case basis
    o. Not really, employability is a matter of luck.

5. Kindly provide the level of importance of the following skills in your assessment of a work applicant's employability by marking the appropriate box. The numbers beside each box signify the level of importance: **1** indicates *absolutely not important*; **2** indicates *neither important or unimportant*; **3** *indicates somewhat important*; **4** indicates *important*; and **5** indicates *very important.*

Rating						**Skills**
☐1	☐2	☐3	☐4	☐5		Advance computer skills
☐1	☐2	☐3	☐4	☐5		Basic computer skills
☐1	☐2	☐3	☐4	☐5		Client service skills
☐1	☐2	☐3	☐4	☐5		Data analysis
☐1	☐2	☐3	☐4	☐5		Empathy
☐1	☐2	☐3	☐4	☐5		English communication skills
☐1	☐2	☐3	☐4	☐5		Entrepreneurship skills
☐1	☐2	☐3	☐4	☐5		Flexibility
☐1	☐2	☐3	☐4	☐5		Integrity
☐1	☐2	☐3	☐4	☐5		Know-how on engineering-related experiments
☐1	☐2	☐3	☐4	☐5		Knowledge of contemporary issues

☐1	☐2	☐3	☐4	☐5		Mathematical/scientific/technological knowledge
☐1	☐2	☐3	☐4	☐5		Problem-solving
☐1	☐2	☐3	☐4	☐5		Proficiency with modern tools
☐1	☐2	☐3	☐4	☐5		Reliability
☐1	☐2	☐3	☐4	☐5		Self-discipline
☐1	☐2	☐3	☐4	☐5		Self-motivated
☐1	☐2	☐3	☐4	☐5		System design proficiency
☐1	☐2	☐3	☐4	☐5		Teamwork
☐1	☐2	☐3	☐4	☐5		Technical skills
☐1	☐2	☐3	☐4	☐5		Understanding and carrying out directions
☐1	☐2	☐3	☐4	☐5		Verbal communication skills
☐1	☐2	☐3	☐4	☐5		Willingness to learn
☐1	☐2	☐3	☐4	☐5		Written communication skills

Part 5. Enhacing Students' Employability

What recommendations can you provide to help improve the employability of engineering students and graduates based on the evidence gathered?

_____

_____

_____

_____

_____

Personal Branding Worksheet

PERSONAL BRANDING WORKSHEET
AUDIENCE
Describe your audience in terms of demographics. What are the social characteristics of this person or group?
Describe your audience in terms of psychographics. What are the psychological characteristics of this person or group? This may include attitudes and mindset.
Identify the key behaviors of your audience. These comprise of observable manners of behaving or acting
AUDIENCE NEEDS
Identify the audience needs that you will fulfill. Include functional and emotional needs.
POINTS OF COMPARISON
Identify your desired title. Based on this job title, how do you want to be perceived (your brand is starting to take shape now.)

UNIQUE STRENGTHS
Identify your unique strengths and the future strengths you can develop.
DELIVERY CAPABILITY
Justify why and how should your target audience should take your word about your unique strengths.
BRAND CHARACTER
Personal brand character includes one's overriding attitude, temperament and personality.
MISSION
What is your brand all about? What do you aim to do in life with this personal brand?

VISION
How will your personal brand reflect your mission? What do you forsee of your personal brand and your life as this brand/
PERSONALITY ATTRIBUTES
Describe the face that you wish to show to the world.
360º FEEDBACK
What do people say about you, your character, and/or your brand?
GOALS
What do you want to achieve with your personal brand?

Appendix 4. Optional Guidelines for Submission of Resume and Student Portfolio

1. At the very least, your resume should contain the following:

a. Contact information: Name, Address, Phone, Email Address, Website URL.
b. A well-defined job objective
c. Work history
d. Educational history
e. Affiliations (if any)
f. References

2. The main goal of your student portfolio is the serve as a showcase of how your knowledge and skills will suit the needs or requirements for your intended ‘audience’.

3. Your portfolio should include information relative to the job title that you prospect to get.

4. It would serve best to create a professional portfolio, not a student portfolio, that will look like one for promotional level (academic) evaluation.

5. The portfolio should serve as an evidence showcase of the brand that you developed using the worksheet.

6. If you are banking on your GPA to get the attention of an employer, show evidence via a certificate of grades, classcards, or a transcript of records, if available.

7. Evidence of measurable skills you highlighted in your personal brand should be included in the showcase.

8. Before even developing your personal brand, familiarize yourself with the following checklist on how you can include evidence of the following in your portfolio.

☐	Advance computer skills

☐	Basic computer skills
☐	Client service skills
☐	Data analysis
☐	Empathy
☐	English communication skills
☐	Entrepreneurship skills
☐	Flexibility
☐	Integrity
☐	Know-how on engineering-related experiments
☐	Knowledge of contemporary issues
☐	Mathematical/scientific/technological knowledge
☐	Problem-solving
☐	Proficiency with modern tools
☐	Reliability
☐	Self-discipline
☐	Self-motivated
☐	System design proficiency
☐	Teamwork
☐	Technical skills
☐	Understanding and carrying out directions
☐	Verbal communication skills
☐	Willingness to learn
	Written communication skills

9. Be creative in compiling the elements of your portfolio. Organize it in such a way as the evaluator will perceive that you are systematic and logical.

10. There are skills which can not be documented by tangible evidence.

11. Organize your portfolio to emphasize your best points/ skills on the brand that you decided to develop for yourself.

12. Be original, but be simple, formal and straightforward.

13. Absolutely no scrapbook style designs in the portfolio please.

14. Keep all your submissions clean and neat.

References:

Blom, Andreas and Hiroshi Saeki. *Employability and Skill Set of Newly Graduated Engineers in India*. Washington, DC: The World Bank, 2011. PDF file.[10]

Jones, Marian and Shelton, Marilyn. *Developing Your Portfolio: Enhancing Your Learning and Showing Your Stuff*. 2nd ed. New York: Routledge, 2011. Print.

Parker Yana and Beth Brown. *The Damn Good Resume Guide: A Crash Course in Resume Writing*. 5th ed. New York: Crown-Random House, 2012. Print.

Appendix 5. Internal Consistency Reliability Analysis Using Cronbach Alpha from SPSS

Reliability

[DataSetPilot]

Scale: Common Items Part 2

Case Processing Summary			
		N	%
Cases	Valid	10	100.0
	Excluded[a]	0	.0
	Total	10	100.0
a. Listwise deletion based on all variables in the procedure.			

Reliability Statistics

[10] This is an eBook.

Cronbach's Alpha	N of Items
.853	11

Scale: Part 3

Case Processing Summary			
		N	%
Cases	Valid	10	100.0
	Excluded[a]	0	.0
	Total	10	100.0
a. Listwise deletion based on all variables in the procedure.			

Reliability Statistics	
Cronbach's Alpha	N of Items
.925	11

Scale: Part 4 - Item No. 29 (24 sub-items)

Case Processing Summary			
		N	%
Cases	Valid	10	100.0
	Excluded[a]	0	.0
	Total	10	100.0
a. Listwise deletion based on all variables in the procedure.			

Reliability Statistics	
Cronbach's Alpha	N of Items
.836	24

Appendix 6. SPSS Workings for the Hypotheses Testing

One-Way Analysis of Variance

		N	Mean	Std. Deviation

Audience	Civil Engineering	20	3.40	.503
	Computer Engineering	20	3.35	.489
	Electrical and Electronics Engineering/ECE	30	3.57	.504
	Total	70	3.46	.502
Audience needs	Civil Engineering	20	2.45	.510
	Computer Engineering	20	2.55	.510
	Electrical and Electronics Engineering/ECE	30	2.50	.509
	Total	70	2.50	.504
Points of Comparison	Civil Engineering	20	2.55	.510
	Computer Engineering	20	2.45	.510
	Electrical and Electronics Engineering/ECE	30	2.50	.509
	Total	70	2.50	.504
Unique strengths	Civil Engineering	20	3.55	.510
	Computer Engineering	20	3.50	.513
	Electrical and Electronics Engineering/ECE	30	3.33	.479
	Total	70	3.44	.500
Delivery capability	Civil Engineering	20	4.10	.852
	Computer Engineering	20	4.35	.671
	Electrical and Electronics Engineering/ECE	30	3.83	.747
	Total	70	4.06	.778
Brand character	Civil Engineering	20	3.15	.813
	Computer Engineering	20	2.85	.813
	Electrical and Electronics Engineering/ECE	30	2.73	.691
	Total	70	2.89	.772
Mission	Civil Engineering	20	2.50	.513
	Computer Engineering	20	2.55	.510
	Electrical and Electronics Engineering/ECE	30	2.53	.507
	Total	70	2.53	.503
Vision	Civil Engineering	20	2.40	.503
	Computer Engineering	20	2.45	.510
	Electrical and Electronics Engineering/ECE	30	2.53	.507
	Total	70	2.47	.503
Personality Attributes	Civil Engineering	20	2.85	.813
	Computer Engineering	20	2.90	.912

	Electrical and Electronics Engineering/ECE	30	3.07	.785
	Total	70	2.96	.824
360-degree feedback	Civil Engineering	20	2.20	1.005
	Computer Engineering	20	2.40	1.231
	Electrical and Electronics Engineering/ECE	30	2.47	1.137
	Total	70	2.37	1.119
Goals	Civil Engineering	20	3.95	.759
	Computer Engineering	20	3.70	.733
	Electrical and Electronics Engineering/ECE	30	3.90	.845
	Total	70	3.86	.785

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Audience	Between Groups	.655	2	.327	1.312	.276
	Within Groups	16.717	67	.250		
	Total	17.371	69			
Audience needs	Between Groups	.100	2	.050	.193	.825
	Within Groups	17.400	67	.260		
	Total	17.500	69			
Points of Comparison	Between Groups	.100	2	.050	.193	.825
	Within Groups	17.400	67	.260		
	Total	17.500	69			
Unique strengths	Between Groups	.655	2	.327	1.320	.274
	Within Groups	16.617	67	.248		
	Total	17.271	69			
Delivery capability	Between Groups	3.255	2	1.627	2.831	.066
	Within Groups	38.517	67	.575		
	Total	41.771	69			
Brand character	Between Groups	2.119	2	1.060	1.822	.170
	Within Groups	38.967	67	.582		
	Total	41.086	69			

Mission	Between Groups	.026	2	.013	.050	.951
	Within Groups	17.417	67	.260		
	Total	17.443	69			
Vision	Between Groups	.226	2	.113	.440	.646
	Within Groups	17.217	67	.257		
	Total	17.443	69			
Personality Attributes	Between Groups	.655	2	.327	.475	.624
	Within Groups	46.217	67	.690		
	Total	46.871	69			
360-degree feedback	Between Groups	.876	2	.438	.343	.711
	Within Groups	85.467	67	1.276		
	Total	86.343	69			
Goals	Between Groups	.721	2	.361	.577	.564
	Within Groups	41.850	67	.625		
	Total	42.571	69			

Kendall's Coefficient of Concordance

		N	Mean	Std. Deviation	Std. Error
Audience	Student	70	3.43	.498	.060
	Faculty Member	70	2.46	.502	.060
	Employer	70	2.51	.503	.060
	Total	210	2.80	.669	.046
Audience Needs	Student	70	3.47	.503	.060
	Faculty Member	70	2.46	.502	.060
	Employer	70	2.47	.503	.060
	Total	210	2.80	.690	.048
Points of Comparison	Student	70	4.00	.851	.102
	Faculty Member	70	2.43	.498	.060
	Employer	70	2.49	.503	.060
	Total	210	2.97	.968	.067
Unique Strengths	Student	70	3.94	.866	.104

	Faculty Member	70	2.96	.751	.090
	Employer	70	2.94	.866	.104
	Total	210	3.28	.949	.066
Delivery Capability	Student	70	3.89	.753	.090
	Faculty Member	70	2.83	.798	.095
	Employer	70	2.91	.812	.097
	Total	210	3.21	.920	.063
Brand Character	Student	70	4.57	.498	.060
	Faculty Member	70	2.74	.811	.097
	Employer	70	2.54	.502	.060
	Total	210	3.29	1.104	.076
Mission	Student	70	3.47	.503	.060
	Faculty Member	70	3.10	.887	.106
	Employer	70	2.57	.498	.060
	Total	210	3.05	.750	.052
Vision	Student	70	3.49	.503	.060
	Faculty Member	70	3.03	.798	.095
	Employer	70	2.61	.490	.059
	Total	210	3.04	.707	.049
Personality Attributes	Student	70	4.50	.504	.060
	Faculty Member	70	4.03	.742	.089
	Employer	70	3.51	.503	.060
	Total	210	4.01	.715	.049
360-degree Feedback	Student	70	4.59	.496	.059
	Faculty Member	70	4.14	.839	.100
	Employer	70	2.46	.502	.060
	Total	210	3.73	1.114	.077
Goals	Student	70	4.43	.498	.060
	Faculty Member	70	3.84	.810	.097
	Employer	70	2.41	.496	.059
	Total	210	3.56	1.048	.072

Ranks	
	Mean Rank
Audience	4.39
Audience Needs	4.37
Brand Character	6.29
Delivery Capability	5.91
Goals	7.00
360-degree Feedback	7.49

Mission	5.27
Personality Attributes	8.76
Points of Comparison	5.08
Unique Strengths	6.15
Vision	5.29

Test Statistics	
N	210
Kendall's W[a]	.200
Chi-Square	419.261
df	10
Asymp. Sig.	.000
a. Kendall's Coefficient of Concordance	

Independent Samples t-test

Group Statistics					
	Respondent Group	N	Mean	Std. Deviation	Std. Error Mean
Employability	Faculty	70	2.74	.440	.053
	Employer	70	2.01	.120	.014

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Employability	Equal variances assumed	148.077	.000	13.363	138	.000	.729	.055	.621	.836
	Equal variances not assumed			13.363	79.118	.000	.729	.055	.620	.837

Correlation Analysis

Correlations			
		Personal Branding	Students' Employability
Personal Branding	Pearson Correlation	1	.833**
	Sig. (2-tailed)		.000

	N	140	140
Students' Employability	Pearson Correlation	.833**	1
	Sig. (2-tailed)	.000	
	N	140	140
**. Correlation is significant at the 0.01 level (2-tailed).			

AN ANALYSIS OF THE RELATIONSHIP BETWEEN PERSONAL BRANDING AND EMPLOYABILITY:

(FOCUS ON ENGINEERING STUDENTS IN INDIA)

MURALI . S

ASSISTANT PROFESSOR, TRAINER, COUNSELOR AT

RAMAIAH INSTITUTE OF MANAGEMENT STUDIES, BANGALORE

AND

RESEARCH SCHOLAR FROM

BHARATHIAR UNIVERSITY; COIMBATORE

ABSTRACT

This paper ventured to investigate the relationship between personal branding and employability among engineering students in the Indian city of Bangalore. The study followed a stratified purposive sampling design involving 70 senior students from an institution of higher learning in technology, 15 faculty members from the same institution, and selected employers who typically hire engineering students in their respective organizations. Descriptive and inferential statistics were employed in the analysis and treatment of empirical data. Findings showed that personal branding and employability of engineering students in a Bangalore institution of technological learning are significantly related ($r=0.833$, $n=140$, $p<0.001$). Results also revealed that the personal brands which students intend to project do not concur with the faculty- and employer-evaluators' perception of personal branding ($W=0.200$, $n=210$, $p<0.001$). Recommendations called for the integration of personal branding inputs among applicable courses in the engineering curriculum and the conduct of a series of seminar-workshops to guide students in conveying their personal brands to significant people in the Indian and global job markets.

Table of Contents

Outline

6. Introduction
    6.1 Research Objectives
        6.1.1 Identify the elements of an effective brand and how the students prioritize each element in their personal branding;
        6.1.2 Measure the employability of the students;
        6.1.3 Assess the students personal brands and compare these brand to how faculty members and prospective employers perceive their brands;
        6.1.4 Analyze the relationship between personal branding and employability;
        6.1.5 Offer insights on improving the employability of engineering students and graduates based on the evidence gathered.
    6.2 Research Hypotheses[11]
        6.2.1 There is no significant difference in the level of importance attributed by the students to the elements of their personal brands.
        6.2.2 There is no significant difference in the employability of the students based on the assessment of faculty members and employers.
        6.2.3 There is no significant concordance in the respondents' perceptions of the students' personal branding.
        6.2.4 There is no significant relationship between personal branding and employability.
    6.3 Scope and Delimitation

[11] Only the null hypotheses are provided in the outline. However, it is understood that "hypotheses always come in pairs: the null and the alternative hypothesis" (Lee, et al. 489)

6.3.1 Sample size: 100 total (70 students, 15 faculty members, and 15 employers) selected through stratified purposive sampling; engineering students were recruited from the following specializations: civil engineering,

6.3.2 Five variables (See research objectives - Sec 1.1 in the outline or complete paper) and four hypotheses (See Sec. 1.2);

6.3.3 Questionnaire is the primary research instrument, whereas a personal branding worksheet is the secondary research instrument.

6.3.4 Descriptive and inferential statistics (See Sec. 3.5), two-tailed hypothesis testing at the 0.05 level of significance.

7. Literature Review

7.1 Personal Branding

7.1.1 Elements of Personal Branding

7.1.2 Perceptions of Personal Branding

7.2 Employability

7.2.1 Elements of Employability

7.3 Studies on Personal Branding and/or Employability

7.4 Conceptual Framework of the Study

8. Methodology

8.1 Research Design: Positivist philosophy, quasi-experimental and correlational research.

8.2 Sampling Design: Stratified purposive sampling

8.3 Instrumentation

8.3.1 Instrument Design

8.3.1.1 Questionnaire-Rating Scale (primary) - 5 parts, 29 items and 24 sub-items

8.3.1.2 Personal Branding Worksheet (secondary),

8.3.1.3 Resume and student portfolio (supplemental);

8.3.2 Pilot Testing

8.3.2.1 Carried out among 10 students

8.3.3 Validity

8.3.3.1 Face and content validity

8.3.3.2 Internal consistency reliability

8.3.3.2.1 Part 2: Cronbach alpha = 0.853

8.3.3.2.2 Part 3: Cronbach alpha = 0.925

8.3.3.2.3 Part 4, item 29 (24 sub-items): Cronbach alpha = 0.836.

8.4 Data Gathering Procedure

8.5 Statistical Treatment

8.5.1 Coding Guide

8.5.2 Descriptive Statistics

8.5.2.1 Frequency and percentage distribution of students as to how elements of personal branding are prioritized

8.5.2.2 Frequency and percentage distribution of students in terms of their employability

8.5.2.3 Frequency and percentage of personal branding as perceived by the three groups of respondents

8.5.2.4 Means and standard deviations of the above distributions

8.5.3 Inferential Statistics

8.5.3.1 One-way analysis of variance (ANOVA): Significant difference in the level of priority attributed by the students to the elements of their personal brands

8.5.3.2 Independent sample t-test: Significant difference in the employability of the students based on the assessment of faculty members and employers

8.5.3.3 Kendall's Coefficient of Concordance: Significant concordance in the respondents' perceptions of the students' personal branding (Students, Faculty Members, and Prospective Employers)

8.5.3.4 Pearson's Coefficient of Correlation: Significant relationship between personal branding and employability

9. Presentation of Results

9.1 Tables, Graphs, and Discussion of Results

9.2 Summary of Findings

1. Introduction

Business tycoon Richard Branson, of the Virgin™ fame articulated his mantra that "there is almost no limit to what a brand can do, but only if used properly" (qtd. in Walliser 1). Brand, according to Peca, is the tangible part of vision, and is thus, an essential part of marketing and success (161). Walliser's views on branding and success are quite congruent with Peca, although the former was more specific about why branding is crucial to ensure success - it is all about differentiation and competitive advantage (1). Tons of reference books, authoritative article, and studies had been conducted to measure practically every aspect of branding and business success, as well as branding and marketability of a product, service or solution. Embarking on a research on these themes would just sound like playing a broken vinyl record, since vinyl is now used in precision polymers (Borner 117).

Certainly, vinyl records are a still hot collectors' item and some people prefer to listen to music the old school way. Vinyl has not outgrown its use. Yet, there are a host of emerging uses that are either as important, or even more important than it being a medium of music. Such importance is a function of who is weighing the essence and the interests being considered by the assessor. Branding can be likened to vinyl. It has never outgrown its use in business and marketing, but there are now new uses, say personal branding.

Personal branding, as described in Chritton (10), pertains to the expression of one's real self by allowing oneself to develop into the person one is meant to be. It is further described in the same work as a strategic procedure where a person takes an active role in directing the course of his own life. In verbatim, Chritton argued that "through personal branding, you find out how to bring more value to your work and to the target market that you serve". (10) It does not,

however, mean that personal branding is developed overnight right after graduation or anytime a person wishes to find employment. Personal branding starts at the time a person builds a personal relationship that makes way for another person to perceive the former's value. The event causes a person's brand equity to accrue. (89)

It follows that the "another person" phrase delimited from the viewpoint of one's target market for possible work opportunities may not necessarily be family members, but rather people in school and in one's social life outside of the family circle, unless the family engages in some form of business. It should be clearer now that the theme of this research paper tackles personal branding and employability. At this juncture, the paper is now being framed in terms of its research locale. India presents an interesting setting for a study on the personal branding-employability link. There are a number of reasons for the special attention on India in general and on Bangalore in particular, on top of the researcher's ethnic background:

- First, the latest available figures show that one in every three Indian graduates is jobless (i.e., 32%);
- Second, ironically the same report disclosed a distressing trend, especially for a student - the higher the students' educational level goes, the higher the unemployment rate increases;
- Third, unemployment is not simply an economic challenge - the ramifications of joblessness spawns social ills, including among others, poverty, criminality, and anarchy (Sharma).

The whole of India as a research locale poses formidable threats to resource availability and practical viability[12] of the study owing to its geographical expanse and its vast population. It is, therefore, more feasible to concentrate on a smaller chunk of the Indian demography in a specific city. Bombay is an easy choice since it is the capital city of one of urban India's industrial hubs and is, therefore, an employment haven for India's jobseekers. But Bangalore presents an equally interesting research locale, based on Mezak's arguments:

- The city has earned the moniker "Silicon Valley of India";
- It is a very popular city owing to the many job opportunities available;

[12] Whitley and Kite's insights in Chapter 5 offers great inputs about some important the characteristics of good research: feasible, researchable, can expand the present state of knowledge (115-117).

- In fact, there were too many job opportunities, especially for the industry thriving in the city since the dawn of the second millenium;
- There are not "enough qualified engineers to fill" the job openings since the 1990s. (34)

Thus, there is a strong case for the study locale to be set in Bangalore. Bombay may be the industrial hub of India, but Bangalore is the technology hub. The present study may help ease the unemployment crunch and looking at the personal branding angle is still a virgin area for research. The last item in the foregoing bulleted list had been going on for decades and continues to the present time. The skills-job mismatch is discussed in more detail in the literature review. (Sec. 2.2, particularly Sarkar and Chaudhary)

In the Google generation, the job market steadily demands for engineering graduates, but not mediocre engineering graduates. Additionally, the Center for Educational Research and Innovation is crystal clear on this matter,

> The fast turnover of scientific and technical knowledge and the resulting need to keep pace with advances in the applied sciences and with engineering systems of growing complexity is becoming a concern of engineering firms and many of the advanced technology firms where engineers are employed ... The demand for highly competent, creative, and versatile engineers is intensifying as a result of the rapid growth of knowledge-intensive industries and increasing competition for national and international markets (169, 170).

The foregoing discussion provides a succinct backdrop for the main theme of the study - **An Analysis of the Relationship between Personal Branding and Employability: Focus on Engineering Students**. On top of the background, the importance of the study is also highlighted in the discussion. The following sub-sections complete the structure of the introduction of this research paper: (a) Research Objectives, (b) Research Hypotheses; (c) Problem Statement; and (d) Scope and Delimitation.

1.1. Research Objectives

The present study endeavored to evaluate the relationship between personal branding and employability among engineering students in Bangalore, India with the end in view of addressing not just the unemployment problem, but the growing discrepancy between level of education and rate of joblessness. Specifically, the research paper aims to achieve the following objectives:

1.1.1. Identify the elements of an effective brand and how the students prioritize each element in their personal branding;

1.1.2. Measure the employability of the students;

1.1.3. Assess the students' personal brands and compare these brands to how faculty members and prospective employers perceive the brands;

1.1.4. Analyze the relationship between personal branding and employability; and

1.1.5. Offer insights on improving the employability of engineering students and graduates based on the evidence gathered.

1.2. Research Hypotheses

The following hypotheses were tested using a 0.05 level of significance and a two-tailed or non-directional analysis. Null (Ho) and alternative (Ha) hypotheses were formulated using the appropriate test statistics.

1.2.1. Prioritizing Personal Brand Elements: Ho - There is no significant difference in the level of importance attributed by the students to the elements of their personal brands. Ha - There is a significant difference in the level of importance attributed by the students to the elements of their personal brands.

1.2.2. Employability of the Students: Ho - There is no significant difference in the employability of the students based on the assessment of faculty members and employers; Ha - There is a significant difference in the employability of the students based on the assessment of faculty members and employers.

1.2.3. Agreement among Students', Faculty Members', and Prospective Employers' Perceptions of the Students' Personal Branding: Ho - There is no significant concordance in the respondents' perceptions of the students' personal branding; Ha - There is a significant concordance in the respondents' perceptions of the students' personal branding;

1.2.4. Relationship Between Personal Branding and Employability: Ho - There is no significant relationship between personal branding and employability; Ha - There is a significant relationship between personal branding and employability.

1.3. Problem Statement

Unemployment is a big problem in India. It is rather alarming that in such a populous country, the higher the educational level gets, the more unemployment becomes a problem. One possible explanation for the ironic trend may have something to do job-seekers' personal branding. Those who seek employment may not be conveying their personal brands the way employers need to perceive them to be 'employable'. Thus, this study endeavored to evaluate the relationship between personal branding and employability among engineering students with the end in view of suggesting initiatives to alleviate the burden of unemployment. Particularly, the study addressed the following research questions:

1.3.1. What are the most important elements or attributes of personal branding among the student-respondents?

1.3.2. Are there significant differences in the level of importance attributed by the students to the elements/attributes of their personal brands?

1.3.3. How do the three groups of respondents perceive the students' personal brands?

1.3.4. Is there significant concordance in the respondents' perceptions of the students' personal branding?

1.3.5. How employable are the student-respondents based on the assessment of faculty members and prospective employers?

1.3.6. Are there significant differences in the employability of the students based on the assessment of faculty members and prospective employers?

1.3.7. Is there a significant relationship between personal branding and employability?

1.3.8. What recommendations can be offered to improve the employability of engineering students and graduates based on the evidence gathered?

1.4. Scope and Delimitation

The study is an empirical research that looks primarily into the relationship between personal branding and employability among selected Indian engineering students in their senior year as of the current school year. The respondents include:

- 70 students from the field of civil, computer, and electrical/electronics engineering;
- 15 faculty members from the institution where the students were recruited; and
- 15 human resource (HR) professionals from companies that employ engineering graduates.

A total of 100 respondents, selected using stratified purposive sampling, voluntarily participated in the study. Student- and faculty-respondents were recruited from a technology institute in Bombay. Employer-respondents were recruited from Bombay and other Indian cities.

Five variables investigated in the study: (1) level of importance of selected elements or attributes of personal branding among the student-respondents; (2) perception of the students' personal branding among the three groups of respondents; (3) employability of the students based on faculty and employer assessments; (4) relationship between personal branding and employability; and (5) ways of improving student employability based on the findings of the study. The study utilized primary data. The questionnaire was used as the main data-gathering instrument, with the personal branding worksheet as a secondary instrument. Both descriptive and inferential analyses were used in the statistical treatment of data. Descriptive results on all five variables were presented in terms of frequency and percentage distribution either in tabular or graphical form, as well as means and standard deviations when applicable.

Hypotheses were tested using two-tailed analysis and a 0.05 level of significance. Significant differences in the level of importance attributed to personal branding attributes were evaluated using one-way analysis of variance. Meanwhile significant difference in the assessment of employability between the faculty and employers was determined using independent sample t-test. Significant concordance in the respondents' perceptions of the students' personal branding was assessed using the Kendall coefficient. Significant relationship between personal branding and employability was verified using Pearson's correlation.

2. Literature Review

This section presents a survey of pertinent literature and studies which have a bearing on the subject of the present research to offer a concise, but comprehensive narrative of state of knowledge on personal branding and employability in the selected engineering fields. The review is divided in four sub-sections: (1) personal branding, its elements or attributes, and perceptions on personal branding; (2) employability and its elements; (3) studies on personal branding and/or employability; and (4) the conceptual framework of the study.

2.1. Personal Branding

The first part of this study saw Chritton's description of personal branding (10). A myriad of authors have written about personal branding and their works have all defined the term in somewhat similar manner. For one, Mobray defines personal branding as the ability to consciously use qualities that demonstrate a person's capability to manage expectations that "another person" will perceive based on an encounter with the former[13]. (4) A few more definitions follow:

- Montoya looks at personal branding as an "identity that stimulates precise, meaningful perceptions in its audience about the values that a person stands for" (Montoya, qtd. in Rampersad 7)
- Honaman defines personal branding as one's own unique value derived from a set of actions and behaviors that cultivate and balance one's relationships in the context of family, community, faith and career (3, 4).

[13] To clarify the , 'former' refers to the first person mentioned in the definition , not the "another person", which is to be referred to, if necessary, as 'latter'. Manser explains proper usage of former and latter very clearly (135).

- Hitchings envisions personal branding as a unique perception of one person in the mind of other people, which the former can take part in creation and control through personal discovery or guidance from coaches/experts (4).

All the above definitions signify personal branding in terms of how a person is perceived by other people. The rest of the other resources browsed in connection with this study reflect the same idea. However, these resources vary as to the elements, attributes or qualities that comprise a personal brand. The following section tackled the elements of personal branding.

2.1.1. Elements of Personal Branding

Montoya's definition of a personal brand consists of two essential elements: emotional impact and consistency. These main elements are exceptionally interesting because they were considered from the viewpoint of the other person. Emotional impact refers to the feelings of "another person" about the person whose brand is being conveyed, as well as the other person's confidence, fascination, and trust. On the other hand, consistency has something to do with rooting the brand among the target audience via multiple contacts with the same brand message (qtd. in Rampersad 4, 5).

Meanwhile, Bence presented the attributes or elements of personal branding in the form of a framework. Bence's brand definition framework consists of six elements: (1) audience, (2) audience's need (s); (3) point(s) of comparison; (4) unique strengths; (5) delivery capability; and (6) brand character. The first three elements relate to external influences, whereas the last three elements relate to internal influences. The audience comprise of people one intends to evoke interest in the personal brand. Need or needs refer to specific gap or gaps one intends to satisfy within the context of the audience (ch. 3[14]).

Another element, point(s) of comparison refer to the 'who and what' of where the personal brand conveyed will be compared to by the audience in regard to fulfilling a need. Unique strengths of one's personal brand are the benefits that prospective audience can derive when one is entrusted to fill in a need. Unique strengths comprise a person's brand promise. Delivery capability was simply called 'reason's why in the Bence framework, but it was renamed by this researcher so that the element's name can embody it's definition in the framework as

[14] eBooks that are not paginated are cited in the MLA format into stable numbered sections like a chapter number abbreviated as ch. (Modern Language Association).

evidence or proof that the unique strengths in the personal brand being conveyed can be delivered. Finally, brand character reflects one's personality, attitude and temperament (ch. 3).

Chritton called the elements of personal branding as characteristics and alternatively, quilt pieces, and the building blocks of brand success. In the order that it was mentioned, these elements are needs, values, interests/passions, mission, vision, strengths, freak factor, personality attributes, education and work experience, 360º feedback, goals, and target market positioning statement. The 'needs' included in Chritton's personal branding elements are different from Bence's (ch. 3) 'needs'. In Chritton's work, needs are personal necessities which drive a person's feelings and affects personal values. (116)

Values, on the other hand, were described by Chritton as the emotional currency of a person's life. However, a further look into the definition revealed that 'values' in Chritton's personal brand elements measure up to everyone's general perception about values: the core principles that render meaning to one's life and are identified by a set of standards that determine ones actions, attitudes, and choices. Interest/passions are also as commonly perceived. Mission was defined as statements that spell out what one is all about and what one aims to do in life. Meanwhile, vision reflects on the mission and elucidates a possibility about a person and his brand. (116).

As defined in Chritton's personal branding elements, strengths are "patterns of interests and abilities that consistently produce a positive outlook in a specific task". (116) Then, there is what Chritton calls a 'freak factor' which identifies a unique quality that makes one different and unusual. In this researcher's analysis Bence's unique strengths are made up of Chritton's strengths and 'freak factor'. Personality attributes, according to Chritton's view of personal branding, are descriptors of the face that one shows to the world. Meanwhile, the education and work experience component are the solid brand attributes that one uses to describe himself (116). These solid brand attributes are comparable to Bence's delivery capability (ch. 3).

The 360º feedback attribute consists of the information about one's character provided by people who have good and sufficient knowledge about a person. Such feedback may come from co-workers or friends. The goals in one's personal branding refer to what one wants to achieve, following a commonly accepted notion. Finally, Chritton's target market positioning statement for personal branding is regarded as a tool which identifies how one intends to be positioned in

the job market. The statement endeavors to put emphasis on the brand in terms of importance and differentiation in order to get noticed (116).

The most important term associated with personal branding would have to be brand equity - the multiplicative product of three factors: others' expectations, interaction experiences, and others' observations of one's personal brand. Others' expectations are what other people think about a person's capabilities. Interaction experiences are the results of other peoples' interaction with the person. Observations are the images that one projects to other people during interactions. As defined in McNally and Speak, when one of these factors is zero, brand equity drops to zero as well. Brand equity falls or rises when any one of the three factors decreases or increases. (60)

2.1.2. Perceptions of Personal Branding

Morgan views personal branding as the fourth pillar of career management. Although his perspective of personal branding is set already in the workplace, the essence of branding still totally reflects what a personal brand should convey as a stepladder to employment. As a professional, Morgan takes to personal branding in terms of weaving self awareness, networking expertise, and skills excellence to one's personal value proposition. Efforts at personal branding integrates soft and hard skills into a portfolio that establishes one's differentiated brand within the circle of decision makers - one's audience who will eventually make the choice to open up career opportunities and work assignments. (13) Morgan, however, differs from Bence (ch. 3) in that Morgan considers the context of possible choices for an assignment as a competitive, not as a comparative landscape. (13)

The most interesting aspect of Morgan's article is about branding one's product - quality output that measures up to the analytical need. (14) This connotes that for first time job-seekers, personal branding is not just about resumes, GPAs, or certificates. Following from Morgan, a good illustration would be resume cover letters or application letters which need to be concise, organized, free of spelling and grammatical errors, and formatting style. While personal branding has to be a unique value proposition, Morgan issued a caveat about never attempting to recreate the gold standard. It is more about analyzing what works and delivering based on that standard with one's own kind of personal branding.(60)

A personal brand is a perception of a person's value in the minds of other people. It must be developed, cultivated, and managed to exude the notion that there exists no one else in the job market with that personal brand. The personal brand statement consists of four main elements: (1) target market identification by niche or job title; (2) choice personal attributes and characteristics that one intends to convey to other people; (3) highlights of technical skills and expertise; (4) differentiation. With this statement, building one's personal brand equity commences into a lifelong endeavor (Vitberg)

Along with the growth of digital technology, Hitchings noted a surge in the popularity of personal branding. Such popularity had seen personal branding to be more common now than it was before when only people in the higher echelons of business and industry maintain personal brands. Branding presents an important option to promote oneself in the market, whether as a job-seeker, entrepreneur, or professional. It offers a creative and consistent medium to present oneself in terms of works, projects, values, and other essential aspects of one's trade or career. However, creating a personal brand is just one part of the story - it has to be maintained, nurtured, and updated to keep it constantly growing. (13) As Hitchings underscored, "a personal brand is more than a marketing statement; it is how ... [one] wants to be known and recognized as". (14)

2.2. Employability

Maier, Barney, and Price define employability as the qualities, work attitude, knowledge, practical and intellectual skills that a person develops which enable him to find a job, stay in the job, and achieve progress in his work position. They differentiate employability from employment as the latter simply refers to getting a job (17). Meanwhile, Knight and Yorke define employability as "a set of achievements, understandings and personal attributes that make individuals more likely to gain employment and be successful in their chosen occupations". (5) Carbery and Garavan's concept of employability involves the "capacity and willingness [of a person] to remain attractive in the labor market (493). Their (i.e., Carbery and Garavan) reference point is at the individual's level of analysis, whereas Maier et al. and Knight et al. did not consider the applicant or employee's willingness.

Knight et al. presented three arguments pertaining to employability. First, employability is probabilistic in that employability does not convert to employment in all certainty because of many extraneous socioeconomic factors. Secondly, for many graduates, the alternatives for an

occupation are limited. Thirdly, securing an employment and being successful in it should not be conflated, or put simply, it does not necessarily follow that finding a job translates to being successful in that job. (5)

However, while most of the literature on employability surveyed for the present study delved on basically a similar construct, McQuiad and Lindsay observed that the concept is continually applied within a variety of contexts and to both groups of people seeking employment and people already employed. In which case, various sectors tend to view employability on different perspectives. (8) Nevertheless, as pointed out in McQuiad and Lindsay, employability is not "merely a subject of theoretical debate ... [but] a cornerstone of labor market policies". (8) This is as far as the British government is concerned.

To say the least, a generally accepted working definition of employability does not exist because a simple dictionary definition of the term does not offer justice to the essence of employability as a premise for employment. McQuaid and Lindsay shared a similar view and argued that "arriving at a working definition is a far more complex process". (8) They also cited two working definitions of employability which are quoted in this study: one by the Confederation of British Industry (CBI) and another by the British government. Employability, according to CBI, is "the possession by an individual of the qualities and competencies required to meet the changing needs of employers and customers and thereby help to realize his or her aspirations and potentials in work". (qtd. in McQuaid and Lindsay 8) The British government's working definition of employability is naturally hinged on development, but very similar to the industry-articulated definition: "development of skills and adaptable workforces in which all those capable of work are encouraged to develop skills, knowledge, technology and adaptability to enable them to enter and remain in employment throughout their working lives". (HM Treasury, qtd. in McQuaid and Lindsay 8)

Meanwhile, earlier this year, the head of state of this study's geographic context had been very vocal about the how the country's problematic education system may be a factor in its unemployment problem. The generally observed low employability of Indian graduates put the spotlight on the education system and the urgency of the need. From the academe itself, only one of every ten Indian graduates are employable in the IT industry, as reported in Sarkar and Chaudhary. Practically the same observation was articulated in Sen and Mishra, who bared statistics from a 2012 study conducted by the organization *Aspiring Minds* that less than one fifth

of Indian engineering graduates have employable skills. Moreover, considering that quite a large number of students graduate each year; the IT industry may experience a shortfall of at least 500,000 professionals. The discrepancy between the big annual graduate turnout and the possible professional shortage is due to skills and job requirements mismatch, which experts attribute to the education system. (Sarkar and Chaudhary)

Only a small portion of engineering graduates are reported to be employable. Overall, only three of every ten graduates are deemed job worthy. Sarkar and Chaudhury, who are from the academe, advocate the importance of addressing the possible reasons for the low employability of Indian graduates in general, and engineering graduates in particular. Taking the cue from the Knowledge Commission of India, one possible reason for the low employability of graduates is the huge discrepancy between the quantity of higher education institutions and the quality of education being offered. (Sarkar and Chaudhary)

Even when the concept of employability is delimited to the field of engineering, it is quite congruent with the foregoing definition that obtaining education for employability connotes "lifelong learning and the acquisition of competency in flexible skills that enhance mobility and job security" (International Labor Organization [ILO] 28, 29). For the industrial sector, the ILO defines employable skills as those skills that enable employees to be responsive to the changing workplace context to contribute towards the competitiveness and growth of the enterprise. (29) In the national government context, employability is taken as the creation of a workforce via education with flexible competencies which can address the changing demands in the job market. (ILO 29) Thus, being educated for employability is considered by the world labor body as a "critical factor in contributing towards the goal of full employment". (29)

That being said, the ILO was quite crystal clear in qualifying that learning does not translate to employability outright. Instead of specific job skills being the critical factors that influence employability, ILO explained that it is rather the capability to effect transferability of the core competencies from job to job or from enterprise to enterprise. The ILO also delineated the primary requisites of employability: sound academic foundation and broad initial training to underpin continuing learning throughout a person's career (9).

2.2.1. Elements of Employability

Employability also has elements, which can be classified into internal and external factors that determine how one becomes more employable. The internal elements which are also

referred to as the supply-side elements or micro-elements are: (1) the scope of transferrable competencies; (2) level of motivation in seeking employment; (2) mobility in finding employment; (4) access to employment and skills information and support networks; and (5) nature and scope of personal barriers to finding gainful employment. On the other hand, the external elements of employability are beyond the control of the job-seekers, and are also called demand-side elements or macro-elements. These external include the following: (1) employers' attitudes towards applicants or current employees; (2) quality of training and education of the supply side of the job market; (3) availability of information- and employment-related assistance for disadvantaged applicants; (4) soundness of the country's taxation system, particularly in eliminating benefit traps for employers; and most importantly, (5) supply of appropriate jobs in the local economy (qtd. in McQuaid and Lindsay 16)

Pool and Sewell offered a simple and practical framework for employability cleverly calling it the CareerEDGE Model. The authors consider the framework to be applicable for introducing employability to students and developing their critical competencies. Figure 1 shows the framework and interaction among the factors that affect employability.

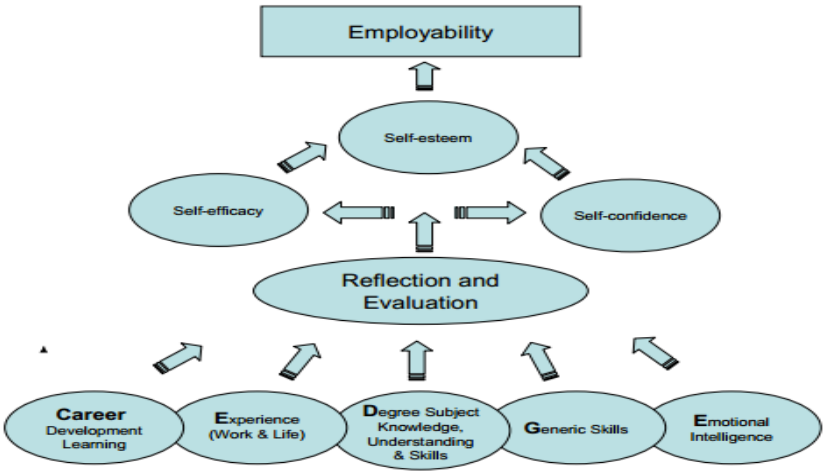


Fig. 1. The CareerEDGE Model from Lorraine Dacre Pool and Peter Sewell, "The Key to Employability: Developing a Practical Model of Graduate Employability", Education + Training 49.4 (2007). Web. 2 October 2014.

As posited in Pool and Sewell, as students are provided access for the factors in the lower tier made up of the mnemonic, CareerEDGE they develop these elements or factors of employability. These factors are: career development learning; work and life experience; degree

subject knowledge, understandings and skills, generic skills, and emotional intelligence. The skills learned and the values inculcated are then applied to reflect on their experiences and evaluate them. These experiences eventually and naturally instill self-confidence, self-efficacy and self-esteem among students and later on professionals - the upper-tier of the factors. Pool and Sewell argued that the upper-tier factors enhance a person's employability. The framework builders, i.e., Pool and Sewell, stressed that the factors described in the mnemonic CareerEDGE are the keys that open the door of employability in terms of career options and securing occupations where the graduate has a chance of attaining satisfaction and success (8, 9).

2.3. Studies on Personal Branding and/or Employability

Meanwhile in the Asian context, Omar, Manaf, Mohd, et al. observed that the high unemployment rate in Malaysia may be caused by deficiency in the graduates' employability skills. Among others, the study revealed that graduates of bachelor degrees tend to be more employable, but academic excellence in terms of the cumulative grade point average (CGPA) is not an important factor for employability. Rather, soft skills were most in demand among employers, and are, therefore, more important factors for graduate employability. Soft skills include high quality communication and interpersonal kills, proficiency in foreign language, and ICT skills. (103)

Findings of Omar, et al. about soft skills may not be simply a Malaysian or Asian phenomenon. Several scholarly works from other geographical contexts revealed the same deficiency. Kumar and Hsiao observed that engineers learn soft skills the hard way since they are learning the required soft skills on the job. With the stiff competition in the job market and the changing demands in the workplace, engineering students and graduates have to develop soft skills including leadership and management skills, on top of the technical skills inherent in their field. (18)

Similarly, Pulko and Parikh tackled the difficulty of addressing the students' needs for basic professional skills via traditional modalities. They also confirmed that formal education had not been very successful in equipping students with skills that will benefit them professionally and personally (243) Bancino and Zevalkink noted that most technical professionals, engineers and engineering graduates included, lack communication skills. Some of the soft skills related to communication are face-to face interactions, non-verbal communications, active listening, writing, and presentation skills. Interpersonal skills include

self-awareness, social awareness, relationship management, and conflict management. Bancino and Zevalkink also regarded skills in the areas of leadership and teamwork as important soft skills including among others, change management, emotional intelligence, negotiation skills, problem solving, and skill for empowering other people. (21)

Within the geographic context of the present study (i.e., India), Blom and Saeki revealed that core employability skills obtained the highest level of importance among employers hiring engineering graduates. The employers rated three sets of skills (core employability, professional, and communication) corresponding to the widely accepted Bloom's taxonomy of learning domains (affective, cognitive, and psychomotor). Among the core employability skills which garnered the highest importance ratings were: integrity, self-discipline, reliability, being self-motivated, entrepreneurship skills, teamwork, ability to understand and carry out directions for assigned tasks, willingness to learn, flexibility, and empathy. (14)

The Blom and Saeki study also showed that communication skills were rated higher than professional skills in terms of their importance for employability considerations. Specific communication skills rated in the study include communication in English, written communication, reading, technical skills (those related to communication), skills related to experimentation (engineering-related) and data analysis, verbal communication, as well as basic and advanced computer skills. Meanwhile professional skills rated in terms of importance for employability include use of modern tools, application of mathematical, scientific and engineering knowledge, problem solving, design of systems to address specific needs, awareness of contemporary issues, and customer service skills. (14)

The survey of studies made about personal branding and employability were more of a general approach and were not focused on any particular field of expertise. No empirical studies were found about the relationship between personal branding and employability. However, this just strengthens the need for the conduct of the present study since the search for related studies revealed that assessing the relationship between personal branding and employability presents a virgin area for research. The few related literature and studies found are presented in this sub-section.

Fiorini tackled personal branding and employability in terms of the franchise builder category of employees. Franchise builders are differentiated from career builders who tend to progress upwards in the workplace hierarchy as loyal employees of a company. In contrast,

franchise builders tend to constantly change workplaces and concentrate on their personal brand building. Franchise builders are looked upon as "boundaryless" and are considered to enhance their employability while building their personal brands. For franchise builders, the concept of job security is replaced by employability. (4)

The work of Hellqvist, Karlsson, and Udden underscored the importance of planning to build personal brands for students to render themselves attractive as future members of the workforce. Corollary to creating their personal brand is to see to it that the students convey the right message to their prospective audience in the correct manner. This is because once prospective employers already made an impression of one's brand, it would be difficult to change. (22) Thus, it is every student's responsibility to create a strong personal brand, since their brand may affect their employability. (79)

Hellqvist, et al. delineated the following factors that can help improve a student's employability: driving force, education and good grades, work experience, activities that complement theory through applications, and international experience. (90) In turn, the academe also has a role to play to supplement the students' efforts for better employability: (1) provision of relevant national and/or international experience; (2) creation and maintenance of alumni network; (3) scouting for alternative channels to enhance the school's relation with the corporate sector and the local communities, as well as for marketing; (4) fostering internal marketing among the students regarding their unique character being associated with the institution and communicating such uniqueness externally. (91)

Meanwhile, Lancaster extended the concept of personal branding and employability to the digital context. The pros and cons of disseminating information on social media were discussed together with the implications to students' future employability. The work was, however, written from a practical experiential approach instead of the traditional research-based treatment. (320) Lancaster recommends students to start creating a sensible professional presence as students by regarding themselves as brands. He affirmed the challenges of developing a personal brand outside of the realm of employment, but vouched for the importance of striving to project a good one since this brand carries on for the rest of a person's career. (327) The article also tackled the difficulties of integrating employability through social media into existing teaching modalities (339).

2.4. Conceptual Framework

The present study follows a simple framework where personal branding, based on the elements considered in the study, influences employability. As applied in the study, personal branding as a construct was tailored after the combined Bence-Chritton framework (Bence ch. 3; Chritton 116). Meanwhile, employability as a construct was primarily designed based on the Blom and Saeki skills-base together with additional inputs discussed from literature. Figure 1 shows the conceptual framework.

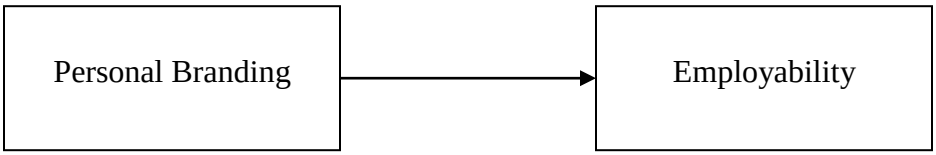


Fig. 2. The Conceptual Framework of the Study. The framework was adopted from the combined models discussed in the preceding survey of related literature and studies.

Grounded on the combined Bence-Chritton framework, the elements of personal branding are: the audience and their needs; points of comparison; unique strengths; delivery capability; brand character; mission; vision; personality attributes; 360º feedback; and goals (Bence ch. 3; Chritton 116). Meanwhile, employability was evaluated in this study by faculty and employers based on three sets of skills (core employability skills, technical/professional competencies, communication skills) defined by Blom and Saeki (14) as projected in the personal branding worksheet prepared by each student, the resumes and portfolio voluntarily submitted by the students for evaluation. The Blom and Saeki employable skills base was adopted in the study since the study was carried out in the Indian context and the findings were published by a world authority. A number of elements were added to the Blom and Saeki (14) skills base grounded on insights from literature, particularly, online presence from Lancaster and McQuaid and Lindsay (16).

3. Methodology

The section on methodology outlines the procedure followed in the conduct of the present study. It explains the preparations carried out prior to information gathering, the data collection procedure, data processing and the statistical analysis of data. This section is divided into five sub-sections: research design, population and sampling design, research instruments, data collection procedure, and statistical treatment.

3.1. Research Design

The philosophical assumption adopted in this study is the positivist approach. Being a quantitative research, positivism is a sound choice since the philosophy is typically used for quantitative studies that require hypotheses testing. As explained in Newman, et al., positivism assumes that "research is based on the scientific methods employed in the hard sciences and it is a method to get at the 'truth'". (194) Research underpinned on the theory of positivism consists of evaluation of hypotheses and is performed with the researcher's expectation of an objective reality which can be estimated or measured (Newman et al. 194)

Research design demonstrates the structure of the study grounded on the research evidence required to address the research inquiry following the scientific approach. De Vaus explained that the role of research design is to see to it that the evidence gathered facilitates the researcher's response to problems posed "as ambiguously as possible" (9) The study is primarily a correlational research since it utilizes descriptive methodology to investigate the relationship between two variables (Mitchell and Jolley 224-225), personal branding and employability. To answer the other problems posed regarding the variables being investigated, quasi-experimental research designs were also used to compare ratings on non-manipulated variables from different respondent groups. (Gravetter and Forzano 284).

3.2. Population and Sample Design

As conceptualized and delimited, the study population comprise of three different groups: students, faculty members, and HR professionals from different companies, who represent the employer-respondents. The students were delimited to those engaged in the fields of civil engineering, computer engineering, and electrical and/or electronics and communications engineering, and are in their senior year from an institute of technology education in Bangalore, India. Faculty members were also recruited from the same three areas of engineering specialization from the same higher education institutions. HR professionals were scouted from Bangalore and other Indian cities via companies who employ personnel from the fields of civil engineering, computer engineering, and/or electrical/electronics/communications engineering. In figures, the study population consists of 420 students, 104 faculty members and over a million possible employers, but only about 439 firms specializing in engineering and infrastructure. (The Economic Times; Shine) As per ethical conduct of research, only the source of the employer

population was identified since it is the responsibility of all researchers to protect the anonymity of respondents by not identifying schools. (Tolmie, Mujis and McAteer 61)

Table 1

Population of delimited research locale

Respondent Group	**Population** (N=963)	**Percentage**
Students	420	43.61%
Faculty Members	104	10.80%
Employers	439	45.59%

As shown in Table 1, the student group consists of 420 individuals representing 43.61% of the study population. The student population is broken down by field of specialization as follows: 120 (28.57% of the student group), the take-in student quota in civil engineering every school year; 120 (28.57% of the student group), the corresponding student take-in quota in computer engineering, and 180 (42.86% of the student group), the corresponding student take-in quota in electrical and electronics and electronics and/ot communications engineering. The faculty group consists of 104 professors representing 10.80% of the study population: a total of 26 (25% of the faculty group) professors hail from the civil engineering department; 24 (23.08% of the faculty group) were from the computer engineering department; and 54 (51.92% of the faculty group) were from the electrical and electronics/communications engineering departments. Slightly less than half of the study population was from the employer group, i.e., 439 of 963 or 45.59%.

3.2.1. Sampling Design

Owing to the specific focus of the study on engineering students, sampling design is deemed best structured using stratified purposive sampling. Stratified sampling divides the sampling frame into sampling elements termed as strata and chooses sample elements independently within each stratum (Chromy 648). Stratification renders the stratified purposive

sampling approach similar to probability or randomized sampling, whereas the small sample generated from the purposive nature of the sampling strategy offers some leeway to tailor-fit the sample for the research problems (Teddlie and Tashakkori 186). Using a combination of sampling approaches as described, is both permitted and encouraged for practical reasons. According to Vogt, Gardner, and Haeffele, the best reason for using both probability and purposive samples in a study is when the intent of the study and the research questions requires this approach (221), as in the case of the present study.

The following parameters were considered in the computation of study sample size: (1) a study population of 963; (2) an 8% margin of error; (3) a 90% level of confidence; and (4) a response distribution of 50% (Raosoft). The minimum required sample size computed using the online calculator is 96, but the number is padded with an additional 5% to an even 100 respondents for contingency in case of unretrieved or invalidated questionnaires. (Appendix 1) A hundred respondents is deemed to possess sufficient power to detect significant differences or relationship.

Based on an a-priori statistical power analysis using Faul, et al.'s G*Power application: (1) one-way analysis of variance will have a statistical power of 81% for a medium effect size among three groups with a total of 66 respondents; (2) a correlation analysis with at least moderate relationship will have a statistical power of 95% with at least a sample of 46. (Appendix 2). The minimum acceptable statistical power recommended by Rubin is 0.8 or 80%. (150) Thus, 70 students were recruited to voluntarily participate in the study since it is the students' personal branding, and employability that will be analyzed.

Sample elements from the student group were selected based on the percentage of the student population size per engineering specialization. This part of the sampling design is stratified. Meanwhile, faculty members who were requested to assess the students' personal branding and subsequent employability were purposively sampled based on the following inclusion criteria: (1) a faculty evaluator for a specific student-respondent should be recruited from the same engineering department as the student; (2) faculty evaluator should have known the specific student-respondent as a former or current student in one or more of the latter's academic subjects or is sufficiently familiar with the student based on a past academic or extra-curricular interaction; and (3) faculty agrees to voluntarily participate in the present study and signs the consent form provided in the questionnaire cover letter.

There is one exclusion criteria for both faculty- and employer-respondents. They should not be a relative of any of the students within the fourth degree of consanguinity or affinity to avoid bias. This is because the assessment of the students' personal branding and employability by the faculty group is not a blind assessment. Consanguinity implies relationship by blood, whereas affinity connotes relationships from marriage. (Statsky 103) Although blind assessment or blind review is associated with treatment assignment in clinical research, blind assessment in this study means that the students were not aware which professor or employer evaluated them - resembling the idea in Harris (129). However, in this case, peers do not participate as reviewers, but rather, review or evaluation is performed by experts like in legal research (Folger and Crapanzano 39).

Accordingly, 15 faculty members qualified for all the inclusion criteria, while also considering the exclusion criteria. In the case of the faculty group performing an assessment of the research variables considered in the study, it was a one way or single blind assessment. This part entails purposive sampling from the stratified purposive sampling design discussed earlier.

HR professionals connected with Indian firms hiring engineering graduates in the field of engineering are referred to in this study as employers or employer evaluators. They were also purposively sampled based on the following inclusion criteria: (1) an employer evaluator for a specific student-respondent should be assigned from a firm hiring engineering graduates or students in the same field of engineering specialization; and (2) respondent agrees to voluntarily participate in the present study and signs the consent form provided in the questionnaire cover letter.

Table 2 displays the details of the sample size for the student group. Meanwhile, Table 3 shows the details of the study sample size from each stratum. About a hundred employers qualified for the first two criteria, but only 20 agreed to sign the consent form. From the 20 employers, 15 were blindly assigned to evaluate the student-respondents' personal branding and employability. This part is a double-blinded assignment - students do not know which employer evaluated their documents and vice versa (Harris 129).

Table 2.

Sample size for the student group in terms of engineering specialization

Student Group	**Student Population** (N_1=420)	**Percentage**	**Sample Size** (n_1=70)
Civil Engineering	120	28.57%	20
Computer Engineering	120	28.57%	20
Electrical and Electronics Engineering	180	42.86%	30

As depicted in Table 2, 20 out of the 70 students (28.57%) each were recruited from both the civil and computer engineering departments. Meanwhile, 30 (42.86%) students were recruited from the electrical and electronics engineering/electronics and communications engineering department. From the list of students from each department obtained from the school, students were randomly sampled and checked if they qualify for the inclusion criteria. The inclusion criteria for students are: (1) in their senior year as students or if there are not enough senior students who qualified, those in their third year may be considered; and (2) respondent agrees to voluntarily participate in the present study and sign the consent form provided in the questionnaire cover letter.

To illustrate, for the civil engineering department, every sixth[15] student in the randomized list starting with the sixth student from the top were scrutinized until 20 respondents qualify based on the inclusion criteria. Then, those who need to be struck out from the list based in the exclusion criteria were disqualified. The process is repeated until the 20-respondent sample requirement is satisfied. The same scheme was applied to all the three groups of students since dividing the student population per department by the required sample size yielded a quotient of 6. However, 30 respondents were selected for the electrical and electronics/electronics and communications engineering students since this student group have a take-in population of 180.

The student-respondents' list was then finalized per engineering department and shown first to prospective faculty respondents. Faculty members were requested to check at least five students they know most from the given list by ranking them using the following scheme:

- 5 - Very familiar with this student's personality **and** academic/other skills
- 4 - Sufficiently familiar with this student's personality **and** academic/other skills

[15] Basis: There are 120 in the population and 20 respondents are needed, so 120 is divided by 20 which equals 6. Some authors, like Babbie (209), call this selection process systematic sampling.

- 3 - Slightly familiar with this student's personality **or** academic/other skills
- 2 - Barely familiar with this student's personality **or** academic/other skills
- 1 - Does not have any knowledge to properly assess this student

Prospective employers were contacted and those who provisionally agreed to participate in the present study were requested to nominate their HR professional who will perform the task of doing a blind evaluation of the student respondents. After the HR professionals were identified, the respondent list was shown to the employer evaluators to confirm that they do not know any of the students in the list. None of the student-respondents in the finalized list were known to any of the 20 prospective employer-respondents who performed a blind evaluation of the students.

Table 3

Sample size for each respondent stratum

Respondent Groups	**Respondent Population** (N_t=963)	**Sample Size** (n_t=100)
Students	420	70
Faculty Members	104	15
Employers	439	15

The student sample had already been discussed in Table 2. Meanwhile, the 15 professors included in the study as faculty evaluators were selected based on their familiarity with the student-respondents' personality, academic performance, and other skills. Evaluators were assigned to students if their level of familiarity is at least 4. A faculty member was assigned to evaluate from a minimum of three students to a maximum of seven students based on the familiarity ratings. The 15 HR professionals who participated in the study as employer evaluators were assigned from a minimum of three to a maximum of six students based on the specialization/s the company is or are hiring.

3.3. Research Instruments

Research instruments refer to tools which are used for the collection and measurement of data (Colton and Covert 4). Meanwhile, instrumentation refers not only to the tools in instrument

design, but also to the construction, assessment, administration, and control of the threats to instrument validity (Hsu and Sandford 607). In this sub-section of the methodology, instrument design is tackled together with pilot testing, and assessment of instrument quality for consistency and validity. A number of research instruments were utilized in the study. The primary and secondary instruments were designed, piloted and evaluated. The supplemental instruments were shown to the evaluators as submitted by the students, but students were provided guidelines for content submission.

The primary research instrument is a questionnaire-rating scale combination as described in Colton and Covert (7, 11-12). Colton and Covert defined questionnaires as instruments used to obtain factual information and to evaluate attitudes, beliefs, and opinions. (11) A questionnaire may also be interchangeably called a scale. To be more specific, the primary instrument used in this study is both a questionnaire and a rating scale. The nature of this study necessitates that the questionnaire be designed also as a rating scale. In verbatim, rating scales are utilized "to measure attitudes and opinions and also to record direct observation and assessment". (Colton and Covert 7).

The rating scale was adopted to facilitate assessment of the secondary research instrument, the personal branding worksheet, as well as to directly observe the student portfolio as supporting documents for the faculty and employer assessment of employability. The primary and secondary research instruments were described in sufficient detail in the next few pages and exhibited as Appendix 3. Both instruments were administered in English.

3.3.1. Instrument Design

The primary research instrument is basically similar for the three groups of respondents, differing only in some portions where the question items are directed only to one particular group or to both the evaluator-groups (faculty and employers). It includes a one-page cover letter briefly explaining the main objective of the study, the procedures involved, the desired research outcomes, and the possible benefits of participating in the academic exercise. (Lodico, Spaulding, and Voegtle ch. 8). In this study, the cover letter also served as a consent form, which includes a few sentences to the effect that returning the completed questionnaire back to the researcher is to be considered that a person is amenable to voluntary participation. From experience, using the term "informed consent form" as a questionnaire or cover letter heading tends to discourage some respondents from participating in a study, perhaps due to the perceived

technicalities in signing the actual form. Marshall explained that another possible reason why prospective respondents are not too comfortable with signatures could be stigma from past incidents. (33) Instead, the components of an informed consent form were integrated into the cover letter with a statement that answering the survey and submitting the questionnaire back to the researcher is deemed acknowledgment that the salient points of the study and the respondent's role as a research participant are well-understood.

Additionally, integrating informed consent into the cover letter requires statements that guarantee confidentiality of all information that the respondents disclose, the respondents' anonymity and volunteerism, as well as the practice of ethical research on the part of the investigator/researcher (Lodico, et al. ch. 8). Ethical research is guided by the principles of beneficence or nonmaleficence, distributive justice, and respect for persons. Respect for persons emphasizes autonomy of the research participants and the unhindered exercise of their free will, whereas beneficence prescribes that participants benefit from the output of the study and non-exposure to any risk or harm. Meanwhile, distributive justice implies the absence of partiality in determining who benefits from the study and who bears the burdens or disadvantages in the conduct of the research (Marshall 7).

The primary research instrument consists of four parts for the student-respondents, and five parts for the faculty- and employer-respondents. Part 1 inquires about the respondents' basic profile. Response options have already been provided for easy processing:

- Course and year level for students;
- Academic department represented and designation or academic rank for faculty members; and
- Engineering specialty/specialties being hired in the company and designation for employers.

Part 2 consists of 11 items about personal branding and its attributes for the three groups of respondents. An additional two items were added for the student respondents to find out more about how students understand personal branding and if they had started developing their personal brand. All items have been provided with response options. Each of the attributes or elements is briefly explained to facilitate completion of the questionnaire. Item numbering starts in Part 2 and continues until the next two parts. Responses to Part 2 address the first objective of

the study (Sec. 1.1.1) and the first research question (Sec. 1.3.1) - *What are the most important elements or attributes of personal branding among the student-respondents*?

Respondents answer the 10 items in Part 2 by indicating the level of importance of attributes/elements of personal branding, The five-point Likert scale was used in Parts 2 to 4 of the questionnaire-rating scale instrument. The Likert scale is the most popular and most commonly utilized approach in scaling. It is a summated-type rating scale developed by Rensis Likert. It consists of statements and a set ordered response alternatives (Johnson and Christensen 208). The response options for the most of Part 2 for all respondents are: very important, important, somewhat important, neither important nor unimportant, and absolutely not

Part 3 consists of 10 items about perceptions of the personal brands developed by the student-respondents using the secondary research instrument (i.e., the personal branding worksheet), and for the faculty-respondents, their familiarity with the students. Students provide self-ratings of the personal branding worksheet they accomplished, whereas the faculty- and employer respondents assess the worksheets based on theoretical and practical standards in the job market, respectively. All items have also been provided with response choices. Responses to Part 3 address the third objective of the study (Sec. 1.1.3) and the third research question (Sec. 1.3.3) - *How do the three groups of respondents perceive the students' personal brands?*

All three groups of respondents answer the 10 items in Part 3 by indicating their assessment of different attributes/elements of personal branding developed by the students using the worksheet, The response options for Part 3 are: excellent, very good, good or average, fair or below average, and poor.

Part 4 consists of 5 items about employability, the relationship between personal branding and employability, and the most important skills to enhance one's employability. Students provide self-ratings, whereas the faculty- and employer respondents assess the worksheets, resumes, and student profiles based on theoretical and practical standards in the job market. All five items have been provided with response alternatives. Responses to Part 4 address the fourth objective of the study (Sec. 1.1.4) and the fifth research question (Sec. 1.3.5) - *How employable are the student-respondents based on the assessment of faculty members and prospective employers?*

All three groups of respondents answer the 5 items in Part 4 by indicating their assessment of each item. Students provide self-ratings, whereas the evaluators assess the students

based on their scrutiny of all the instruments The response options for the first item in this part are: very employable, employable, unsure, needs some improvement to be employable, and needs a lot of improvement to be employable. Instead of asking why the students are employable, and why the students may encounter challenges about their employability, respondents were asked to indicate the three most employable elements of the students' personal brand and three elements which need the most improvement, respectively. Each of the three ranks is to be given to one attribute/element only.

Additionally, as a method of triangulating the results of hypothesis testing to evaluate if a significant relationship exists between personal branding and employability, opinions or perceptions of the respondents were solicited about the matter. The following response alternatives are provided: yes, to a big extent; yes to some extent; it depends on the field of engineering; not always, it is a case to case basis; and not really, employability is a matter of luck.

As the fifth item for Part 4, the respondents were also asked to indicate the level of importance of selected skills for the students' employability. The response options are the same as the most of Part 2: very important, important, somewhat important, neither important nor unimportant, and absolutely not important.

Part 5 consists of just one item, an open-ended question asking only the employer respondents for suggestion/s on how the employability of engineering graduates can be enhanced either within or outside the education system. This part addresses the fifth objective of the study (Sec. 1.1.4) and the eighth research question (Sec. 1.3.8) - *What recommendations can be offered to improve the employability of engineering students and graduates based on the evidence gathered?*

The secondary research instrument is a personal branding worksheet (Appendix 3). A digital and hard copy of the template was distributed to the student-respondents who were then given instructions to complete the worksheet. The worksheets can, thus be submitted to the researcher or sent by email to the researcher's email address. Students were given enough time to complete the worksheet, but they were followed up by short messaging system (SMS) or email about the progress of the worksheet. Student-respondents were also provided the researcher's contact details in case they have questions about the worksheet.

3.3.2. Pilot Testing

A pilot testing is defined as the process of trying out a research instrument to evaluate whether it will perform its intended use before it is administered in a study (Burke and Christensen 212). In this sense, the pilot study is regarded as a preliminary test of the survey questionnaire. As suggested in Burke & Christensen, the pilot study may be conducted among five to ten people as a minimum (212). The rationale for carrying out a pilot study is to find out if there are any points of confusion that participants may experience while answering the questionnaire. The researcher, therefore, requested the pilot study participants, who were engineering students not included in the study proper as respondents, to be open about how they understand the questionnaire items or to point out items which do not appear very clear.

Results of the pilot testing are also used to measure the validity and reliability of the rating scales used for the study variables. Validity and reliability of the measurement scales are necessary when a survey questionnaire is used to evaluate hypotheses (Smith 53). The next sub-section discusses the validity and reliability of the research instrument used for the present study.

3.3.3. Validity and Reliability

Jackson defined validity as to whether or not a research instrument measures what it purports to measure (71). In this study, face and content validity were assessed. As explained in Jackson, face validity is a measure of "the extent to which a measurement appears valid on its surface". (72) Content validity, on the other hand, assesses the extent to which a research instrument predicts behavior, ability or skill or whatever constructs are being quantified. (71-72).

Face and content validity of the research instruments were evaluated with the assistance of two experts: a human resource director from a Bangalore-based company and an internationally-published researcher/data scientist from the Philippines. The latter was referred to this researcher by a contact from the academe. The first draft of the questionnaire prepared by this researcher was enhanced based on the recommendations of the two experts prior to pilot testing. Additional refinements were made based on inputs from the pilot study respondents.

Questionnaire reliability was measured using internal consistency. Internal consistency is a form of reliability which evaluates how consistently the items in a questionnaire measure the construct being investigated. Cronbach alpha was used to assess internal consistency since the primary research instrument utilized scaling (Zikmund, Barry, Carr, and Griffin 302-309). The minimum acceptable value of Cronbach alpha for any scale would be over 0.7 as suggested by Cronbach, the originator of the test himself. (qtd. in Harris 187)

Only the common questionnaire-rating scale items for Parts 2 and 3, and the last item in Part 4 which consists of 24 sub-items were assessed for internal consistency reliability. All of the items included in the reliability analysis used five-point Likert scales. Part 1, four items in Part 4, and Part 5 were not included in the reliability test anymore because: (1) Part 1 comprises only of basic profile questions; (2) some items in Part 4 are one-item scales and others were not actually scales, but ranks; and (3) Part 5 utilized an open-ended question. The personal branding worksheet, which consists of open-ended questions, was only subjected to face and content validity.

The obtained values of Cronbach alpha for the three scales of the primary research instrument assessed are as follows: for Part 2, Cronbach alpha was 0.853; for Part 3, Cronbach alpha was 0.925; and for item 29 of Part 4 which consists of 24 sub-items, Cronbach alpha was 0.836. An internal consistency reliability greater then 0.7 is acceptable. Workings for the Cronbach alpha reliability analysis using the software Statistical Package for the Social Sciences (SPSS) Version 17 (IBM Statistics) is shown as Appendix 5.

3.4. Data Collection Procedure

Data collection from the three groups of respondents was carried out in the following manner:

9. Permission was requested from the institution of higher learning where the student- and faculty respondents were recruited for the conduct of pilot testing, and later for the administration of the research questionnaire. The letter also requests for a student list for the study sampling procedure. Within the same period, letters were sent by snail mail and email to companies for prospective employer-respondents.
10. After permission was granted, the questionnaire for the pilot study was administered among 10 engineering students in the school of technology in Bangalore where the students and faculty respondents were recruited for the study proper.
11. Results of the pilot study were processed and the instruments were validated and assessed for reliability. After the instrument quality was found satisfactory based on content and face validity, as well as internal consistency reliability, when applicable, the questionnaire was reproduced for administration.

12. Request for the student list was followed up and subsequently obtained. The sampling procedure is explained in sufficient detail under Section 3.2 was carried out to come up with the final list of student- and faculty respondents. Within about the same period, the final list of the employer-respondents was finalized.
13. Prior to administration of the research questionnaire, a short presentation was made to apprise the students about personal branding and its importance to their future employability. In coordination with a group of faculty members, the students were assembled in a classroom and given final instructions about their voluntary participation in the study, the integration of the informed consent form in the cover letter, and the guidelines for the submission of resumes and student portfolio. There were several batches since all students can not be accommodated in one room. Students were given enough time to complete the worksheets and respond to the research questionnaire.
14. It took more than two months to retrieve all the questionnaires, worksheets, resumes and sets of portfolio for 70 students. When all the instruments and supporting documents are complete, they were reproduced so that the worksheets, resumes, and portfolios can be turned over to the respective faculty- and employer-evaluators at the same time.
15. Almost two months elapsed before all the answered questionnaires were retrieved from faculty- and employer-respondents. Within this period, questionnaires from the students were processed into a data matrix. This was accomplished with the aid of a coding guide as explained in the last sub-section in the methodology. Also, as the answered questionnaires were retrieved from faculty members and employers, data processing was carried out within the same day if possible, to save time.
16. When the data processing was completed, statistical data analysis was carried out.

3.5. Statistical Treatment of Data

Statistical treatment of data gathered was processed to develop the data matrix with the aid of a coding guide. Individual cases comprise the rows of the matrix, whereas the responses for each item in the questionnaire make up the columns. Following is the integrated coding guide for the slightly different questionnaires for the three groups of respondents, and a discussion of the statistical treatment of the data.

3.5.1 Coding Guide

Questionnaire responses were coded by representing the response alternatives to a numerical equivalent. The coding scheme is shown below for each scale used in the primary research instrument (i.e., the questionnaire). Red font color was used to emphasize the coding.

Part : Respondent's Profile

For Students:

3. What is your course or specialization?

(1) ☐ Civil Engineering

(2) ☐Computer Engineering

(3) ☐ Electrical and Electronics Engineering or Electronics and Communications Engineering

4. In what year-level are you now?

(4) ☐ Fourth Year

(3) ☐ Third Year

For Faculty Members:

3. What academic department do you represent?

(1) ☐ Civil Engineering

(2) ☐ Computer Engineering

(3) ☐ Electrical and Electronics Engineering or Electronics and Communications Engineering

4. What is your current academic rank in the institution?

(1) ☐ Professor

(2) ☐ Associate Professor

(3) ☐ Assistant Professor

For Employers:

3. What engineering specializations do you hire in the company? Please check all that apply.

(1) ☐ Civil Engineering

(2) ☐ Computer Engineering

(3) ☐ Electrical and Electronics Engineering or Electronics and Communications Engineering

4. What is your current designation/position in the company?

(5) ☐ HR Director

(8) ☐ HR Manager

(6) ☐ HR Supervisor

(7) ☐ Other: Please specify:

Part 2. Personal Branding and its Most Important Attributes

For Student-Respondents Only:

2. I have started creating my personal brand.

g. Of course, even before college. (1)

h. Yes, during the last few years in college. (2)

i. I'm not sure, I need guidance. (3)

j. I heard about the term, but I really do not know if: it is applicable in my case, if I really need one, or what that means. (4)

k. No. I am clueless about that term. (5)

l. Other - Please specify: _____

2. As a student, personal branding refers to finding out how I can create value for my reputation, both as a learner and as a prospective employee.

f. I strongly agree. (5)

g. I agree to some extent. (4)

h. I neither agree nor disagree. (3)

i. I slightly disagree. (2)

j. I strongly disagree. (1)

Common Items for all Respondents:

Items 3-13 for students or 1-11 for faculty- and employer-respondents have the same response alternatives, so only one item was shown to save space.

4. Audience: The audience comprise of people one intends to evoke interest in the personal brand. Examples are: professors, prospective employers, prospective clients, etc.
    a. Very important (5)
    b. Important (4)
    c. Somewhat important (3)
    d. Neither important nor unimportant (2)
    e. Absolutely not important (1)

Part 3: Perception of Students' *Personal Brand Among the Three Groups of Respondents*

Items 14-24 for students or 12-22 for faculty- and employer-respondents have the same response alternatives, so only one item was shown to save space.

15. Audience
    a. Excellent (5)
    b. Very good (4)
    c. Good or average (3)
    d. Fair or below average (2)
    e. Poor (1)

Part : Students' Employability

2. How employable are you?
    f. Very employable (5)
    g. Employable (4)

h. Unsure (3)
i. Needs some improvement to be employable (2)
j. Needs a lot of improvement to be employable (1)

6. What are the top three most employable elements of your personal brand? Kindly check the rank beside each element. Strictly one element per rank position please. (Coded based on the box number marked by respondent)

☐1 ☐2 ☐3 - Audience needs
☐1 ☐2 ☐3 - Points of comparison
☐1 ☐2 ☐3 - Unique strengths
☐1 ☐2 ☐3 - Delivery capability
☐1 ☐2 ☐3 - Brand character
☐1 ☐2 ☐3 - Mission
☐1 ☐2 ☐3 - Vision
☐1 ☐2 ☐3 - Personality attributes
☐1 ☐2 ☐3 - 360º feedback
☐1 ☐2 ☐3 - Goals

7. What three elements of your personal brand need improvement. Rank the element which needs the biggest improvement as 1. (Coded based on the box number marked by respondent)

☐1 ☐2 ☐3 - Audience needs
☐1 ☐2 ☐3 - Points of comparison
☐1 ☐2 ☐3 - Unique strengths
☐1 ☐2 ☐3 - Delivery capability
☐1 ☐2 ☐3 - Brand character
☐1 ☐2 ☐3 - Mission
☐1 ☐2 ☐3 - Vision
☐1 ☐2 ☐3 - Personality attributes
☐1 ☐2 ☐3 - 360º feedback

☐1 ☐2 ☐3 - Goals

8. Do you think that personal branding influences a student's employability
    a. Yes, to a big extent (5)
    b. Yes, to some extent (4)
    c. It depends on the field of engineering (3)
    d. Not always, it is on a case to case basis (2)
    e. Not really, employability is a matter of luck. (1)

9. Kindly provide the level of importance of the following skills in your assessment of a work applicant's employability by marking the appropriate box. The numbers beside each box signify the level of importance: **1** indicates *absolutely not important*; **2** indicates *neither important or unimportant*; **3** *indicates somewhat important*; **4** indicates *important*; and **5** indicates *very important.*

    (Coded based on the box number marked by respondent; there were 24 skills in this item)

3.5.2. Descriptive Statistics

Frequency and percentage distributions were utilized to describe the following variables: (1) how elements of personal branding are prioritized by the student-respondents; (2) how the three groups of respondents evaluated student employability; and (3) how each element of the student-respondents' personal brand is perceived by the three groups of respondents. Means and standard deviations were also used to numerically describe the central tendency and dispersion of the quantifiable study variables from the mean. To facilitate qualitative description and interpretation of the summated ratings provided by the respondents for the variables considered in the study, the following statistical limits had been arbitrarily set based on the data gathered. Table 4 was developed for the scales pertaining to personal branding in Parts 2 and 3, whereas Table 5 was prepared for the scales in Part 4 pertaining to employability. Meanwhile, Table 6 was for the scales for the student-group only in Part 2. The last item in Part 4 follows the same scale as Part 2 (level of importance) in Table 4.

Table 4

Interpretation guide for the rating scales in parts 2 and 3 of the questionnaire common for all respondent-groups

Statistical Limits	**Qualitative Descriptors**	
	Part 2 Level of Importance of the Personal Branding Elements	**Part 3 Perceptions of the Students' Personal Brands**
4.50-5.00	Very important (VI)	Excellent (EX)
3.50-4.49	Important (IM)	Very Good (VG)
2.50-3.49	Somewhat important (SI)	Good (GO)
1.41-2.49	Neither important nor unimportant (NE)	Fair (FA)
1.00-1.40	Absolutely not important (NI)	Poor (PO)

Table 5a

Interpretation guide for the rating scales in Part 4 of the questionnaire common for all respondent-groups

Statistical Limits	**Qualitative Descriptors for Part 4**	
	Assessment of the Students' Employability (Original)	**Personal Branding influences Employability**
4.50-5.00	Highly employable	Yes, to a big extent
4.00-4.49	Very employable	Yes, to some extent
3.00-3.99	Employable	Depends on the field
2.00-2.69	Needs some improvement to be employable	Case to-case basis
1.00-1.99	Needs a lot of improvement to be employable	Matter of luck

Table 5b

Interpretation guide for the rating scales in Part 4 of the questionnaire common for all respondent-groups

Statistical Limits	**Qualitative Descriptors for Part 4**
	Assessment of the Students' Employability (Recalibrated)
4.50-5.00	Highly employable
4.00-4.49	Very employable
2.70-3.99	Employable
2.00-2.69	Needs some improvement to be employable
1.00-1.99	Needs a lot of improvement to be employable

Table 6

Interpretation guide for the rating scales in Part 2 for the student group Only

Statistical Limits	**Qualitative Descriptors for Part 2 (Students Only)**	
	Started Developing Personal Brand	**Reaction to Definition Given for Personal Branding**
4.50-5.00	Of course, even before college	Strongly agree
3.50-4.49	Yes, during the last few years in college	Agree to some extent
2.50-3.49	Not sure, guidance needed	Neutral
1.41-2.49	Heard about the term	Slightly disagree
1.00-1.40	Clueless about the term	Strongly disagree

3.5.3. Inferential Statistics

Inferential statistics was used to test the four hypotheses evaluated in the study. Two-tailed or non-directional analysis was utilized with the hypothesized level of significance at 0.05. This implies that if the test statistic yields a level of significance (Sig. in SPSS) or p-value less than 0.05, the null hypothesis is rejected and the alternative hypothesis is accepted. Otherwise, if the p-value is equal to or greater than 0.05, the research evidence failed to reject the null hypothesis as explained in Rubin (115).

One way analysis of variance (ANOVA) was utilized to investigate if there are significant differences in the level of importance attributed by the student-respondents to the

elements of their personal brand. One way ANOVA tests for differences in the means of three or more groups defined on only one independent variable. (Howell 397) This part of the statistical treatment of data addresses the second research question (Sec. 1.3.2) - *Are there significant differences in the level of importance attributed by the students o the elements/attributes of their personal brands*?

Meanwhile, independent samples t-test was used to evaluate significant difference in the assessment of the employability of the student-respondents by the faculty- and employer-evaluators. This statistical test is applied to evaluate the difference between two independent sample means. (Howell 345) This inferential treatment of the data collected resolves the sixth research question (Sec. 1.3.6) - *Are there significant differences in the employability of the students based on the assessment of faculty members and prospective employers*?

Kendall's coefficient of concordance, represented by the symbol W, was calculated to check if there is significant agreement in the perceptions of the students' personal brands among the three groups of respondent. The W statistic measures how much a set of three or more raters tend to agree among a set of ordinal data. (Kraska-Miller 186) It answers the fourth research question (Sec. 1.3.4) - *Is there a significant concordance in the respondents perceptions of the students' personal branding*?

To evaluate the significant relationship between personal branding and employability, the Pearson correlation coefficient was used. Jackson explained that the rationale of calculating a correlation is to "assess the degree of relationship between two variables. (156). Hypothesis testing using the Pearson correlation coefficient resolves the seventh research question (Sec. 1.3.7) - *Is there a significant relationship between personal branding and employability*? Interpretation of the strength of the relationship was made based on Salkind. (92) A scan of the interpretation guide found at the bottom of the page is shown below.

Size of the Correlation	Coefficient General Interpretation
.8 to 1.0	Very strong relationship
.6 to .8	Strong relationship
.4 to .6	Moderate relationship
.2 to .4	Weak relationship
.0 to .2	Weak or no relationship

Fig. 3. Interpretation Guide for the Pearson Correlation Coefficient from Neil Salkind, Statistics for People Who (Think They) Hate Statistics. 5th ed. (Thousand Oaks: Sage, 2014). 92. Print.

4. Presentation of Results

This section presents the results of the study whose main objective is to investigate the relationship between personal branding and employability among engineering students in Bangalore, India. Eight research questions were addressed to assess the five variables identified in the study using descriptive and inferential statistics. The findings are presented following the sequence of the research questions posed in Section 1.3

4.1. Level of Importance of Personal Branding Elements among the Student-Respondents

Table 7 displays the results of the study regarding the level of importance attributed by the student-respondents on the different elements of personal branding. Results are shown from the most important down to the least important element based on the students' view of personal branding. Interpretation of the mean was discussed in the methodology under Sec. 3.5.2. Standard deviations were also provided to gain insight about how the student responses were dispersed from the mean

Table 7

Level of importance of personal branding elements

Element	**Mean**	**Standard Deviation**	**Level of Importance**
Delivery capability	4.06	0.778	Important
Goals	3.86	0.785	Important
Audience	3.46	0.502	Somewhat important
Unique strengths	3.44	0.500	Somewhat important
Personality attributes	2.96	0.824	Somewhat important
Brand character	2.89	0.772	Somewhat important
Mission	2.53	0.503	Somewhat important
Audience needs	2.50	0.504	Somewhat important
Points of comparison	2.50	0.504	Somewhat important
Vision	2.47	0.503	Neither important nor unimportant

360º feedback	2.37	1.119	Neither important nor unimportant

As reflected in Table 7, delivery capability, with a mean of 4.06 (important), was given the highest rating on importance by the student-respondents among the elements of personal branding considered in the study. Together with delivery capability, goals (mean, 3.86) comprise the only other element which garnered an 'important' rating in the scale. Seven of the remaining personal branding elements were rated 'somewhat important' by the students: audience (3.46); unique strengths (3.44); personality attributes (2.96); brand character (2.89); mission (2.53); audience needs (2.50); and points of comparison (2.50). Meanwhile, vision and 360º feedback were rated as 'neither important nor unimportant' with respective means of 2.47 and 2.37.

The least important element (i.e., 360º feedback) according to student ratings also registered the most diverse responses, since it has the highest standard deviation (SD). It was also observed that five of the seven elements adjudged as 'somewhat important' showed the lowest (SDs). This may be taken to mean that student opinions of their level of importance were more consistent than the other elements. On the other hand, the two elements with the highest means posted higher SDs. The phenomenon may be attributed to ratings which consist of varying scores in the higher range of the scale or most 4 and 5 with some 3's.

According to some of the employer-evaluators who were informally asked to comment on the findings among the student-respondent during questionnaire retrieval from the evaluators, the findings are cues that students are not completely aware about the importance of personal branding. They claimed that on their end (the evaluators), all the personal branding elements were rated a 4 or a 5. A cursory inspection of faculty- and employer-respondent/evaluator ratings revealed that the comment was quite true of the data gathered. The implications are discussed under Sec. 4.3 so as not to preempt disclosure of the findings.

4.2. Differences in the Level of Importance attributed by Students to Personal Brand Elements

Table 8 shows the findings of one-way ANOVA on the level of importance attributed by the student-respondents to the different elements of personal branding. Students were grouped by their engineering specialization: civil engineering (CE); computer engineering CoE; and electrical and electronics/electronics and communications engineering (EE/ECE). All the 11 elements of personal branding considered in this study were included in the table.

Table 8

Differences in the level of importance attributed to personal branding elements

Element	**Group Means**		**Source of Error**	**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig. (p-value)**
Audience	CE	3.40	Between	0.655	2	0.327	1.312	0. 276
	CoE	3.35	Within	16.717	67	0.250		
	EE/ECE	3.57	Total	17.371	69			
Audience Needs	CE	2.45	Between	0.100	2	0.050	0.193	0.825
	CoE	2.55	Within	17.400	67	0.260		
	EE/ECE	2.50	Total	17.500	69			
Points of Comparison	CE	2.55	Between	0.100	2	0.050	0.193	0.825
	CoE	2.45	Within	17.400	67	0.260		
	EE/ECE	2.50	Total	17.500	69			
Unique Strengths	CE	3.55	Between	0.655	2	0.327	1.320	0.274
	CoE	3.50	Within	16.617	67	0.248		
	EE/ECE	3.33	Total	17.271	69			
Delivery Capability	CE	4.10	Between	3.255	2	1.627	2.831	0.066
	CoE	4.35	Within	38.517	67	0.575		
	EE/ECE	3.83	Total	41.771	69			
Brand Character	CE	3.15	Between	2.119	2	1.060	1.822	0.170
	CoE	2.85	Within	38.967	67	0.582		
	EE/ECE	2.73	Total	41.086	69			
Mission	CE	2.50	Between	0.026	2	0.013	0.050	0.951
	CoE	2.55	Within	17.417	67	0.260		
	EE/ECE	2.53	Total	17.4443	69			
Vision	CE	2.40	Between	0.226	2	0.113	0.440	0.646
	CoE	2.45	Within	17.217	67	0.257		
	EE/ECE	2.53	Total	17.443	69			
Personality Attributes	CE	2.85	Between	0.655	2	0.327	0.475	0.624
	CoE	2.90	Within	46.217	67	0.690		
	EE/ECE	3.07	Total	46.871	69			
360º Feedback	CE	2.20	Between	0.876	2	0.438	0.343	0.711
	CoE	2.40	Within	85.467	67	1.276		
	EE/ECE	2.47	Total	86.343	69			
Goals	CE	3.95	Between	0.721	2	0.361	0.577	0.564
	CoE	3.70	Within	41.850	67	0.625		
	EE/ECE	3.90	Total	42.571	69			

Results of hypothesis testing to assess whether significant differences can be detected in the level of importance attributed by the students to personal branding elements are shown in summarized form in Table 8. The mean of the responses of each group of students, that is: CE, CoE, and EE/ECE found in the second column of Table 8 reveals that the group values are not distant from each other. Thus, a cursory examination of the p-values of the F-statistic(s) computed should lead one to a conclusion that there were no significant differences among the responses of the three groups of student-respondents as to the level of importance of all the 11 elements of personal branding considered in this study. All the p-values (represented as Sig. in SPSS) were higher than the hypothesized level of significance (α=0.05) in this study. Thus, the first null hypothesis of the study formulated in Sec.1.2.1 was accepted.

Research data showed that there is no significant difference in the level of importance attributed by the students to the elements of their personal brands. Corollary to the findings in Table 7 and the opinion given by evaluators, the importance given to elements of personal branding were not as high as they expected. However, Waldman has a ready answer which can be quoted to explain the study findings: " ...despite the importance of personal branding in modern job search, many job seekers still don't understand what it's all about" (ch. 4).

Moreover, responses to supplemental questions in the primary research instrument can be used to sustain Waldman's argument. To the first item in Part 2 exclusively for student respondents, only 21 of the 70 students or 30% confirmed that they had started building their personal brand during their last few years in college and none of the student-respondents claimed to have started creating their personal brand before college. Some 19 students (27.14%) were not even sure if they had started creating one. There were 26 students (37.14%) who confessed that they have heard about the term but they do not know if personal branding is applicable to their case, if they really need one, or what personal branding really means. In fact, there were 4 students (5.71%) who admitted they are clueless about personal branding.

With the personal branding awareness statistics bared in the preceding paragraph, the short a short presentation conducted by this researcher to apprise the students about personal branding and its importance to their future employability, as well as the inputs integrated in the questionnaire, were not sufficient to provide the students a crash course on Personal Branding 101. This has implications on the current curriculum of engineering students which needs to be

reinforced with lessons that will introduce and equip students with skills in creating their unique personal brands for the sake of their future employability.

4.3. Perceptions on the Students' Personal Brands among the 3 Respondent Groups

The summary data in Table 9 presents the findings of the study about the perception of the three groups of respondents pertaining the students' personal branding as assessed by the faculty- and employer-evaluators based on the personal branding worksheets accomplished by the students as the secondary research instrument. The students provided self-ratings of their own work. The mean of the evaluator assessment of each element of the students' personal brands was interpreted aided by the corresponding table in Sec. 3.5.2.

As to the self-ratings provided by the students, three elements were rated excellent: brand character (4.57); personality attributes (4.50); and 360º feedback (4.59). Two elements were rated very good: points of comparison (4.00) and goals (4.43). The rest of the 11 elements were self-rated 'good' by the student-respondents: audience (3.43); audience needs (3.47); unique strengths (3.94); delivery capability (3.89); mission (3.47); vision and (3.49).

Without the benefit of Kendall's coefficient of concordance yet, descriptive evidence showed that the students' self-ratings were not congruent with the mean of the evaluators' assessment. However, it was also evident that even the two evaluator groups' assessments were not very similar. What is apparent in the mean of the evaluator assessments and the self-ratings is that the assessment means were always lower than the self-rating means.

Table 9

Perceptions of the personal brands among the three groups of respondents

Element	Student Mean	Interpretation	Faculty Mean	Interpretation	Employer Mean	Interpretation
Audience	3.43	Good	2.46	Fair	2.51	Fair
Audience Needs	3.47	Good	2.46	Fair	2.47	Fair
Points of	4.00	Very Good	2.43	Fair	2.49	Fair

Comparison						
Unique Strengths	3.94	Good	2.96	Fair	2.94	Fair
Delivery Capability	3.89	Good	2.83	Fair	2.91	Fair
Brand Character	4.57	Excellent	2.74	Fair	2.54	Fair
Mission	3.47	Good	3.10	Good	2.57	Fair
Vision	3.49	Good	3.03	Good	2.61	Fair
Personality Attributes	4.50	Excellent	4.03	Very Good	3.51	Good
360º Feedback	4.59	Excellent	4.14	Very Good	2.46	Fair
Goals	4.43	Very Good	3.84	Good	2.41	Fair
Mean	**3.97**	**Good**	**3.12**	**Good**	**2.68**	**Fair**

As may be gleaned from Table 9, the element 360º feedback, which garnered the highest rating among the students (4.59, excellent), posted a very good rating (mean, 4.14) among the faculty evaluators, but managed only a fair rating (mean, 2.46) among the employers. It is highly possible that the students who were given higher rating under 360º feedback, had developed and cultivated their personal brand among the faculty-respondents who assessed their branding and employability. (Vitberg) Meanwhile, brand character, which registered a students' self-rating mean of 4.57 (excellent) was assessed to be 'fair' by both groups of evaluators: 2.74 among faculty-respondents and 2.54 among employer-respondents. As a whole, the group means for each element of personal branding suggests that the three groups of respondents have different perceptions of how the students' personal brands were created. The next sub-section will verify this conjecture by hypothesis testing.

4.4. Agreement or Concordance in the Perception of the Students' Personal Brands

Result of hypothesis testing to assess evaluate if a significant agreement can be identified among the perceptions of the three groups of respondents about how the students' personal brands were communicated is shown in Table 10. The hypothesis was tested using Kendall's

coefficient of concordance (W). The Kendall W coefficient measures the level of consensus among the three groups about their evaluation of each element of the students' personal brands.

Table 10

Significant concordance among the three groups of respondents

Variables Considered	**Mean Ranks**	**N**	**df**	**Kendall Coefficient of Concordance (W)**	**Sig. (p-value)**	**Decision**
Audience	4.39	210	10	0.200	<0.001	Failed to Reject Null Hypothesis
Audience Needs	4.37					
Points of Comparison	5.08					
Unique Strengths	6.15					
Delivery Capability	5.91					
Brand Character	6.29					
Mission	5.27					
Vision	5.29					
Personality Attributes	8.76					
360º Feedback	7.49					
Goals	7.00					
Notes: 1. The Sig. (p-value) given is asymptotic. 2. The chi-square (χ^2) value of the data analyzed is 419.261						

As the values in Table 9 augured, Kendall's coefficient of concordance (W) is 0.20, which is closer to 0, shows that there is no consistency among the perceptions of the three groups of respondents about how the student brands were articulated based on the personal branding worksheet. With a p-value of less than 0.001, there was found a significant non-concordance in the ratings provided by the three-groups of respondents on their perceptions of the personal brands prepared by the students. Thus, the study data gathered failed to reject the third null hypothesis that there is no significant concordance in the respondents' perceptions of the students' personal branding as formulated in Sec. 1.2.3.

The given χ^2 value indicates a reasonable approximation of the sampling distribution of W. (Sheskin 1097). Conventional wisdom on the behavior of the χ^2 distribution shows that the sampling distribution is quite dispersed owing to the large χ^2 value (419.261). This further confirms Kendall's coefficient of concordance that the three groups of respondents have different perceptions of the students' personal brands ($W=0.200$; $n=210$; $p<0.001$) .

4.5. Employability of the Student-Respondents based on the Assessment of Faculty Members and Employers

Table 11 presents the study findings summarizing the employability prospects of the student-respondents based on the branding worksheet, resume, and student portfolio they prepared/submitted. The results are summarized in terms of frequency and percentage distributions, as well as the mean of the ratings given by the respondents. Qualitative descriptors of the mean were also provided.

Table 11

Frequency and percentage distribution of faculty- and employer respondents' assessment of the employability of students

Student Employability	**Faculty-Respondent Assessment**		**Employer-Respondent Respondent**	
	Frequency	**Percentage**	**Frequency**	**Percentage**
Highly Employable	0	0	0	0
Very Employable	0	0	0	0
Employable	52	74.28	1	1.43
Needs Some Improvement	18	25.72	69	98.57
Needs Substantial Improvement	0	0	0	0
Mean	**2.743** (Needs Some Improvement)		**2.014** (Needs Some Improvement)	

Employability ratings given by both groups of evaluators converge around only two Likert scale points, but the distribution in each rating is quite different, as depicted in Table 11. According to the faculty-respondents, 52 or about three-quarters of the student-respondents are employable, whereas the remaining one-quarter of the 70 respondents were evaluated to be requiring some improvement to be employable. However, on the part of the employer-

respondents, all but one of the respondents needs some improvement to be more employable. Only one student (1.43%) was evaluated as outright employable. In terms of the mean, the faculty members believe that the student group, as a whole, needs some improvement to be employable with a mean of 2.743. Practically the same verdict was given by the employer respondents, but with a lower mean of 2.014.

The findings are consistent with the present scenario in India. As discussed in the literature review, less than one fifth of Indian graduates have employable skills (Sarkar and Chaudhary). The study respondents, however, are not yet even graduates.

The higher rating among the faculty members may be brought about by positive interactions with the students which they evaluated as expressed in Montoya's definition of personal branding. (qtd. in Walliser 4, 5) It is also possible that by virtue of the faculty's previous interaction experiences with the students, the students were able to accrue some brand equity on their professors (Speak and McNally 60). In contrast, the employers performed a blind assessment and do not have any previous encounters as this was how the study was designed. It is, therefore, natural that based on Vitberg's explanation, the students have impressed their personal brand slightly among the faculty members they had previous interaction with.

Even if the study did not look into how students perceive their employability, the research instrument was practically similar among the three groups. Hence, data was available in this regard. The students were more optimistic of their employability than the faculty- and employer-respondents, and this is a common phenomenon as self-ratings tend to be higher in many studies. (qtd. in Clinton and Smith 92, 93) Some 43 out of 70 or 61.43% students thought that they are 'very employable', whereas the remaining 27 or 38.57% believe that they are 'employable'.

Aside from gathering data on how students perceive their employability, the primary instrument also inquired about their top three personal brand elements which are most employable, since the faculty and employees were also asked the same item. Note that this question simply validated respondent perceptions of the brand elements in a reworded form and it is expected that results here will tally with the findings under Se. 4.3. Four elements figured out in the top three most employable list among the students: delivery capability, brand character, personality attributes, and unique strengths. When the weighted mean of these elements were considered based on their position in the top three, the most employable elements

of their personal brand were: delivery capability (top); brand character (second); and personality attributes (third).

When the validating question was asked among the faculty evaluators, their top element based on the student personal brands they assessed was 360º feedback; their second choice was personality attributes; and their third choice was the brand goals. Their top three was consistent with the findings in Sec. 4.3, but the student group's ranking was not. Results of the validating question among the students imply that the students were deficient in their own self awareness, an important requisite of personal branding according to Morgan, i.e., weaving self awareness. (13)

Among the employer group, their top most employable elements of the student brand they evaluated were personality attributes (top), unique strengths (second), and delivery capability (third). Their rankings tallied with the findings among the employer group in Sec. 4.3. This suggests that the employer evaluators were focused on their role as respondent-evaluators in the study, like the faculty-respondents.

4.6. Differences in the Employability of the Students based on the Assessment of Faculty Members and Prospective Employers

Table 12 presents the findings of the study pertaining to the hypothesis formulated under Sec. 1.2.2. The null hypothesis was evaluated using independent samples t-test between the faculty- and employer-respondents at a hypothesized level of significance of 0.05. The accompanying Levene's test of homogeneity of variance among the responses was not satisfied, thus, instead of a df=138, the SPSS-adjusted df of 79.118 (in parentheses, column 3) was used to deal with the non-homogeneity of variance - an assumption that must be satisfied when using the t-test.

Table 12

Differences in the employability assessment performed by teachers and employers

Variable	**Mean Difference**	**Degrees of Freedom**	**t-statistic**	**Sig. (p-value)**	**Decision**
Employability	0.729	138 (79.118)	13.363	<0.001	Reject Null Hypothesis

Earlier results from Table 11 showed that the employability assessment made by the two groups of respondents registered means of 2.743 and 2.014, respectively, for faculty- and employer respondents. The difference between these means is displayed in column 2 (0.729). The independent samples t-test yielded a t-statistic of 13.363, with a corresponding p-value of <0.001. The computed p-value is less than the hypothesized level of significance of 0.05. Hence, the decision rule is to reject the null hypothesis and adopt the alternative hypothesis that there is a significant difference in the employability of the students based on the assessment of faculty members and employers ($t=13.363$; $df=79.118$; $p<0.001$).

The findings imply that the means, 2.743 and 2.014 are significantly different. This warranted a revisit of the arbitrarily defined statistical limits for employability in Sec. 3.5.2. If 2.014 fall within the 'needs some improvement' scale level of employability, then the scale must be adjusted to advance 2.743 to a higher level, i.e., 'employable' - to reflect the significant difference. Both the original and recalibrated scales are shown in Sec. 3.5.2.

4.7. Significant Relationship Between Personal Branding and Employability

To analyze if there is a significant relationship between personal branding and employability, the evaluator responses for Sec. 4.3 and Sec. 4.5 were compared using the Pearson correlation coefficient. This is the fourth, last and main hypothesis of the study. The hypothesized level of significance was also set at 0.05 like the three other hypotheses testing procedures.

Table 13

Significant relationship between personal branding and employability

Variables Correlated	**N**	**Pearson Correlation Coefficient (r)**	**Sig. (p-value)**	**Decision**
Personal Branding and Employability	140	0.833	<0.001	Reject Null Hypothesis

Table 13 presents the result of the correlation analysis to test the null hypothesis that there is no significant relationship between personal branding and employability. For each of the 70 student-respondents, the assessment of their personal brand worksheet for the 11 elements by the two groups of evaluators was averaged. This was inputted under the variable personal branding. The rating for employability under the first item of Part 4 of the primary research instrument was inputted in the correlation analysis as the variable employability. There was a total of 140 cases, since each of the students was evaluated by a faculty member and an employer.

Results revealed a Pearson correlation coefficient of 0.833. Using Salkind's interpretation guide, a correlation coefficient of 0.833 suggests a very strong relationship between the two variables being evaluated (92). A computed p-value of <0.001 implies that the relationship is significant since the computed level of significance is less than the hypothesized level of 0.05. Therefore, the decision rule is to reject the null hypothesis and accept the alternative hypothesis that there is a significant and strong relationship between personal branding and employability ($r=.833$; $n=140$; $p<0.001$).

4.8. Recommendations to Help Improve the Employability of Engineering Students and Graduates Based on the Evidence Gathered

To make this part of the study useful and beneficial among engineering students, responses from two other questions in the primary research instrument are summarized and discussed to help ground the recommendations. Suggested modalities to enhance the employability of engineering students and graduates were sourced from the employer responses to the open-ended question in Part 5 of the primary research instrument and inputs from literature and readings on employability.

Table 14 presents a summary to another validating question about the students' personal brands. This time, the respondents were requested to rank the three least employable elements of the students' personal brands. Students provided their self-ratings.

Table 15

Three least employable elements of the students' personal brands

Least Employable Elements	**Students**	**Faculty Members**	**Employers**

Rank 1	Points of Comparison (28.83)	Points of Comparison (30.67)	Goals (31.67)
Rank 2	Mission (19.00)	Audience (22.67)	360º Feedback (21.67)
Rank 3	Vision (18.67)	Audience Needs (14.83)	Audience Needs (12.67)

Weighted mean was used to come up with the most common answers on the top 3 where the first ranked elements is assigned a weight of 3, the second ranked element a weight of 2, and the third ranked element a weight of 1. Like in the top 3 most employable branding elements, student responses did not jive with their responses in Sec. 4.3. However, the evaluator responses were consistent with their inputs in Sec. 4.3.

The findings in Table 15 imply that a set of recommendations to enhance student employability should focus on the weak points of the students' personal branding like, how points of comparison can be more articulately communicated. They should also be given more insights about how they can be more visible in the market for their prospective audience and to more adequately impress their chosen audience about how they can fill audience needs in the job market. Moreover, their personal branding should be able to capture their goals and express them in their brands quite convincingly. Without the benefit of previous interaction and similar experiences, prospective employers should be provided with sufficient feedback through their applicant's personal brand statement.

A survey among prospective employers is not complete if inputs will not be gathered about the skills they need most on the job. This data will help in making improvements in the current Indian engineering curriculum to address the skills-requirement gap between the supply and demand of labor. A total of 24 skills were presented to the employer-respondents based on the Blom and Saeki (14) study to find out what the prospective employers of engineering graduates desire from their new employees. The summarized data from the employer-respondent responses presented in Table 16 are classified in terms of core employable skills, communication skills, and professional knowledge.

Table 16

Skills desired from engineering graduates

Core Employable Skills	**Professional/Technical Skills**	**Communication Skills**
Integrity (4.73)	Proficiency with modern tools (4.47)	English communication skills (4.60)
Reliability (4.67)	Creativity (4.40)	Basic computer skills (4.53)
Teamwork (4.60)	(4.33)	Written communication skills (4.47)

Flexibility (4.47) Understanding and carrying out directions (4.53) Willingness to learn (4.47) Empathy (4.20) Self discipline (4.07) Self-motivation (3.93) Entrepreneurship skills (3.87)	Knowledge of contemporary issues (4.27) Problem-solving (4.20) System design proficiency (4.13) Client service skills (4.07) Mathematical/scientific/technological knowledge (4.00)	Know-how on engineering-related experiments (4.40) Data analysis (4.40) Technical skills (4.33) Verbal communication skills (4.27) Advance computer skills (4.20)

Findings in the present study concurred with the earlier findings of Blom and Saeki (14) that the core employable skills consists of the soft skills as shown in the literature review were regarded by employers as more important that engineering/professional knowledge. The highest level of importance was attributed by the employer respondents on core skills like integrity, reliability, teamwork, flexibility, etc. as well as communication skills, particularly English, basic computer literacy, written communication skills, etc. These skills were rated higher by employers as more employable than the hard skills like mathematical/scientific/ technological knowledge and system design proficiency. Thus, the findings concur with previous research claiming that employers look more on soft skills when they decide which applicants are employable (Omar et al. 103; Kumar and Hsiao 18; Bancino and Zevalkink 21)

Findings from Table 16 direct the recommendations towards heavier emphasis on soft skills and communication proficiency vis a vis the hard engineering technology skills. Following are the recommendations articulated by the employers to enhance the employability of engineering graduates:

16. Integrate personal branding topics in applicable subjects early in the curriculum, so that engineering education can prepare the students for future employment. The best courses where this can be blended are English and research courses/subjects.
17. Engineering curricula should include a life-long continuing professional education to keep graduates abreast of rapidly advancing technology, as well as the soft skills that engineering firms continuously require.
18. Students who are in currently enrolled in the traditional curricula can benefit from a series of seminar-workshops about effectively communicating their personal brands to enhance their employability.

19. The academe should revisit the engineering curricula and update them in cooperative consultation with the industry and engineering firms to close the gap in the skills-job mismatch.
20. Any learning activities aimed at modernizing resume-writing for students' future employability need to be integrated with training on improving their personal brands. Employers will get to know an applicant more with an effective personal brand statement than an elaborate resume.
21. Students should be trained how to effectively express the 360º feedback in their personal brand. Success in communicating this feedback to the 'audience' can lead to a more succinct description of the audience need that the applicant intends to fulfill.
22. As pointed out early in the paper, there is quite an oversupply of labor in India, and the best chance of any applicant at finding a job commensurate with his academic preparation is to excel in capturing an audience for his/her personal brand and focusing on the specific needs of the audience.
23. Schools offering engineering education need to set up a committee or a department tasked with the transfer of technology and workplace know-how from the industry to the students, the future employees. This will help address the job and skills mismatch.
24. Employers always look into exploiting new technology and new knowledge. Thus, incoming employees should be able to fill-in this need.
25. Research and data-analysis are desired skills of engineering professionals. Schools need to train students in this field and personal brands should be communicated to stress these skills as unique strengths.
26. With the current advances in engineering technology, knowledge has a shelf-life. Institutions offering engineering education should continuously tailor-fit the curricula for emerging knowledge and technology.
27. Soft skills can not always be learned on the job. Schools are the best training lab for their very in-demand employee skills.
28. Engineering schools should not only utilize partnership with the industry for employment networking. These partnerships can be harnessed to close the labor market-skills mismatch. Teach the students to be employable by coordinating with the engineering companies about their knowledge and technology requirements.

29. The curricula should be designed with provisions for perpetual update and synchronicity with emerging developments in the field. Lessons can always be updated to accommodate changes which can not wait for the next curricular change.
30. Each engineering course/subject should be a dry laboratory of the workplace. Students should be trained in the workplace context.

5. Conclusions and Recommendations

In the light of the study findings presented in Section 4, the following conclusions are drawn and the study recommendations are forwarded.

5.1. Conclusions

5.1.1. Students are not sufficiently aware about personal brands per se, and this was illustrated in the generally low level of importance they attributed to many elements of personal branding.

5.1.2. There were no significant differences among the three student groups with respect to the level of importance they attributed to the different personal branding elements, which signifies that the deficiency in awareness of personal branding shown above is not confined to any one or two engineering specializations in general, but to all students in the institution regardless of specialization.

5.1.3. Perceptions on the efficacy of the personal brands communicated by the students differed. This suggests that the students' personal brands were not successful in conveying the message they wish to communicate to their intended audience.

5.1.4. Kendall's coefficient of concordance confirmed the above conjecture that the students did not send the right message to their intended audience in the personal brands they prepared.

5.1.5. The faculty-evaluators believed that the students were 'employable' in the Likert scale arbitrarily designed for the study, whereas the employers thought the same students need some improvement to be employable. This is either a case of the faculty knowing the students' capabilities more than the employers or the findings simply confirmed the trend that few engineering graduates in general are, indeed employable based on statistics.

5.1.6. The t-test showed and confirmed the above findings that faculty and employer assessment of employability significantly differed. The personal brands failed to convey the intended message to the employers.

5.1.7. The very strong and significant relationship between personal branding and employability has strong implications for institutions offering engineering education to educate students to be more employable by effectively communicating their personal brands to their intended audience in the job market.

5.1.8. Employer recommendations to enhance the employability of the student-respondents should be taken seriously and carried over to entire institution.

5.2. Recommendations

5.1.1. The concerned school authorities, in cooperation with this researcher, may enjoin their students to attend a series of seminar-workshops on personal branding since they are almost about to finish the engineering program and will later search the job market for employment.

5.1.2. The most potent approach to educate the students about their personal brands and how this can help boost their employability is through the conduct of self awareness activities and effectively conveying their brand message to prospective employers

5.1.3. Students should also be assisted in delimiting the target audience in the job market to those whose needs could be efficiently addressed grounded on the students' education background and preparation. In this regard, academe-industry linkages can be tapped to close the gap in the jobs and skills mismatch.

5.1.4. Engineering schools should set up a training laboratory in school to acclimatize students as to the environmental context of the engineering workplace. The scheme will not only enhance the students' employable skills but will offer the students a better perspective of their own self on-the-job and will help improve how they communicate their personal brand to their intended future audience. This experience should precede on-the-job training placements in the industry.

5.1.5. Engineering students should not be educated to be 'engineers in isolation' since this modality can bring out their best technical and scientific skills, but not the soft skills. Soft skills are learned not as students, but as employees. Engineering classes

had to be set up as a natural breeding ground for soft skills. In this regard, the faculty has a great role to play.

5.1.6. Personal branding activities must be introduced in appropriate subjects through seamlessly designed instructional plans to turn the academe into a working atmosphere that supports continuous professional education institution.

5.1.7. The very strong and significant relationship between personal branding and employability should be used by the academe to turn in graduates that can be assimilated in the job market. Individual student projects should be creatively assigned by faculty with the end in view of honing students in effectively communicating their personal brand. An example would be to prepare assignments that had to be presented in the form of a letter to a superior. This sharpens not just the students' engineering and technical skills, but also their communication skills.

5.1.8. Implements employer recommendations in Sec. 4.8 by integrating these into revitalized engineering curricula for the next batch of students.

5.3 Limitations of the Study and Directions for Future Research

A minor limitation of the study is that it did not adopt a completely probability or randomized design, but a compromise between probability design via stratified sampling and non-probability design via purposive sampling. Yet, this is the best way to frame the research design to answer all the research problems posed.

Another limitation, not of the study itself, but of the data gathered, is the strong and significant relationship between personal branding and employability. The statistical test was legitimate, but the circumstances behind the data are quite alarming. Practically, the employer assessment of employability deserves more weight than the faculty assessment. The significant relationship was, however detected on a generally fair personal brand ratings and low level of employability.

Thus, future research imperatives should look into data when a batch of students had been sufficiently educated about personal branding. With the students more aware of the importance of personal branding to their future employability, it is posited that they will put in their best effort to create an effective personal brand. That would be the best time to validate the findings of the present study that, indeed, personal branding is significantly and highly correlated

to employability. These findings should be able to offer the country's unemployment problems a "shot in the arm".

Notes

[1]Lee, Cheng-Few, John Lee, and Alice Lee. *Statistics for Business and Financial Economics*. 3rd ed. New York: Springer, 2013. Print.

[2]Whitley, Bernard, and Mary Kite. *Principle of Research in Behavioral Science*. 3rd ed. New York: Routledge, 2013. Print.

[3]Manser, Martin. *Good Word Guide: The Fastest Way to Correct English - Spelling, Punctuation, Grammar and Usage*. 6th ed. London: Bloomsbury, 2003. Print.

[4]Modern Language Association. "How Do I Cite an eBook?" FAQ About the MLA Handbook. 6 March 2014. Web.

[5]Babbie, Earl. *The Practice of Social Research*. 13th ed. Belmont: Wadsworth-Cengage Learning, 2013. Print.

Works Cited

Bancino, Randy and Claire Zevalkink. "Soft Skills: The New Curriculum for Hard Core Technical Professionals." *Techniques: Connecting Education and Careers* 82.5 (2007): 20-22. Print.

Bence, Brenda. *Master the Brand Called YOU™*. Nevada: Global Insight Communications, 2014. DjVu file[16].

Blom, Andreas and Hiroshi Saeki. *Employability and Skill Set of Newly Graduated Engineers in India*. Washington, DC: The World Bank, 2011. PDF file.[17]

Borner, Hans. "Precision Polymers - Modern Tools to Understand and Program Macromolecular Interaction." *Macromolecular Rapid Communications* 32.2 (2011): 115-126. Print.

Johnson, R. Burke and Larry Christensen, L. *Educational Research: Quantitative, Qualitative, and Mixed Approaches*. 5th ed. Thousand Oaks: Sage, 2014. Print.

[16] This is an eBook.
[17] This is an eBook.

Carbery, Ronan and Thomas Garavan. "Organizational restructuring and downsizing: Issues Related to Learning, Training, and Employability of Survivors". *Journal of European Industrial Training: A Journal for HRD Specialists* 29.6 (2005): 488-508. Print.

Chromy, James. (2006). "Survey Sampling". *Handbook of Complementary Methods in Eeducation Research.* Eds. In Judith Green, Gregory Camilli and Patricia Elmore. Mahwah, NJ: Lawrence Erlbaum/American Educational Research Association, 2006. 641-654. Print.

Clinton, B. Douglas and Pamela Smith. "Instilling Student Responsibility with Team Contracts and Peer Evaluations." *Advances in Accounting Education: Teaching and Curriculum Innovations*. Eds. Bill Schwartz and Anthony Catanach, Jr. Bingley: Emerald Group, 2009. 81-102. Print.

Colton, David and *Covert, Robert. Designing and Constructing Instruments for Social Research and Evaluation*. San Francisco: Jossey-Bass/Wiley & Sons, 2007. Print.

De Vaus, David. *Research Design in Social Research*. Thousand Oaks: Sage, 2001. Print.

Chritton, Susan. *Personal Branding for Dummies*. Hoboken: Wiley, 2012. Print.

Faul, Franz, Axel Buchner, Edgar Eldfelder, and Albert-Georg Lang. G*Power. Vers. 3.1.2. Computer software. *Heinrich-Heine-University Dusseldorf*, 2009. Windows Vista, 4 MB, disk.

Fiorini, Mayra Maia. "Graduate Employability: What can Higher Education Do? - A Literature Review." *Skills Hive*. Web. 6 October 2014.

Folger, Robert and Russell Cropanzano. "Fairness Theory: Justice as Accountability" *Advances in Organizational Justice*. Eds. Jerald Greenberg and Russell Cropanzano. Stanford: Standford University Press, 2001. 1-55. Print.

Gravetter, Frederick and Lori-Ann Forzano. *Research Methods for the Behavioral Sciences*. 4th ed. Belmont: Wadsworth-Cengage Learning, 2012. Print.

Harris, Don. *Writing Human Factors Research Papers: A Guidebook*. Burlington: Ashgate, 2012.

Hellqvist, Johanna, Lina Karlsson, and Sara Udden. "Pistol or Swords: Which are the Most Useful Weapons in the War for Talent? - A Study of Business Students' Employability." Master Thesis. Umea University, 2008. Web. 4 October, 2014.

Hitchings, Molly. "The Importance of Personal Branding: How to Create and Maintain a Successful Personal Brand." Bachelor thesis. California Polytechnic State University, 2014. Print.

Honam an, Justin. *Make it Happen!: Live Out your Personal Brand*. Bloomington: iUniverse, 2008. Print.

Howell, David. *Fundamental Statistics for the Behavioral Sciences*. 8th ed. Belmont: Wadsworth-Cengage Learning.

Hsu, Chia-Chien and Brian Sandford. "Instrumentation." *Encyclopedia of Research Design*. Vol. 2. Ed. Neil Salkind. Thousand Oaks: Sage, 2010. 607-610. Print.

International Labor Organization. *Lifelong Learning in the Mechanical and Electrical Engineering Industries*. Geneva: International Labor Office, 2002. Print.

Kraska-Miller, Marie. *Nonparametric Statistics for Social and Behavioral Sciences*. Boca Raton, CRC Press-Taylor & Francis, 2014. Print.

Knight, Peter and Mantz Yorke. *Assessment, Learning and Employability*. Berkshire: Open University Press/McGraw-Hill Education, 2003.

Kumar, Sanjeev and J. Kent Hsiao. "Engineers Learn 'Soft Skills the Hard Way': Planting a Seed of Leadership in Engineering Classes." Leadership and Management in Engineering 7.1 (2007): 18-23. Print.

Lancaster, Thomas. "Teaching Students about Online Professionalism: Enhancing Student Employability Through Social Media." *Cutting-Edge Technologies and Social Media Use in Higher Education*. Eds. Vladlena Benson and Stephanie Morgan. Hershey: Information Science Reference - IGI Global, 2014. 320-341. Print.

Lodico, Marquerite, Dean Spaulding, and Katherine Voegtle. *Methods in Educational Research: From Theory to Practice*. 2nd ed. San Francisco: Jossey-Bass/Wiley, 2010. Web.

Maier, Pat, Anna Barney, and Geraldine Price. *Study Skills for Science, Engineering and Technology Students*. London: Pearson UK, 2013. PDF file[18].

Marshall, Patricia. *Special Topics in Social, Economic, and Behavioral Research Report Series No. 5: Ethical Challenges in Study Design and Informed Consent for Health Research in Resource-Poor Settings*. Geneva: World Health Organization, 2007. Print.

[18] This is an eBook.

Martella, Ronald, J. Ron Nelson, Robert Morgan, and Nancy Marchand-Martella. *Understanding and Interpreting Educational Research*. New York: Guilford, 2013. Print.

McNally, David and Karl Speak. *Be your Own Brand: A Breakthrough Formula for Standing Out from the Crowd*. San Franscisco: Berrett-Koehler, 2003. Print.

McQuaid, Ronald and Colin Lindsay. "The Concept of Employability." *Employability and Local Labor Markets*. Eds. Ronald McQuaid, Anne Green, and Mike Danson. New York: Routledge, 2006. 6-28. Print.

Mezak, Steve. *Software Without Borders: A Step-by-Step Guide to Outsourcing your Software Development*. Los Altos: Earthrise, 2006. Print.

Mitchell, Mark and Janina Jolley. *Research Design Explained*. 8th ed. Belmont: Wadsworth-Cengage Learning, 2013. Print.

Mobray, Kaplan. *The 10Ks of Personal Branding: (K)reate a Better You*. Bloomington: iUniverse, 2009. Print.

Morgan, Mark. "Personal Branding: Create Your Value Proposition". Strategic Finance. August 2011. Web. 29 September 2014.

Newman, Isadore, David Newman, and Carole Newman. "Writing Research Articles Using Mixed Methods: Methodological Considerations to Help you Get Published." *The Handbook of Scholarly Writing and Publishing*. Eds. Tonette Rocco, Tim Hatcher, et al. San Francisco: Jessey-Bass/Wiley & Sons, 2011. 191-208. Print.

Omar, Nik Hairi, Azmi Abdul Manaf, Rusyda Helma Mohd, Arena Che Kassim, and Khairani Abd. Aziz. "Graduates' Employability Skills Based on Current Job Demand through Electronic Advertisement". *Asian Social Science* 8.9 (2012): 103-110. Print.

Pool, Lorraine Dacre and Peter Sewell. "The Key to Employability: Developing a Practical Model of Graduate Employability". *Education + Training* 49.4 (2007): 277-289. Web. 2 October 2014.

Pulko, Susan and Samir Parikh. "Teaching Soft Skills to Engineers." International Journal of Electrical Engineering Education 40.5 (2003): 243-254. Print.

Rampersad, Hubert. *Authentic Personal Branding*. Charlotte: Information Age Publishing, 2009. Print.

Raosoft. "Sample Size Calculator." *Raosoft, Inc*. Web. 1 October 2014.

Rubin Allen. *Statistics for Evidence-Based Practice and Evaluation*. 3rd ed. Belmont: Brooks/Cole-Cengage Learning, 2013. Print.

Neil Salkind, *Statistics for People Who (Think They) Hate Statistics*. 5th ed. Thousand Oaks: Sage, 2014. Print.

Sarkar, Ashoke Kumar and Sanjiv Kumar Chaudhary. "Reasons for Low Employability of Engineering Graduates." *Business Today India*. 10 April, 2014. Web. 4 October 2014.

Sen, Anirban and Pankaj Mishra. "Degree in Hand, a Generation of Engineers Looks for Alternatives: The IT Industry Cannot Employ All the Engineers that India's Colleges are Churning Out." *Live Mint*. 20 June 2013. Web. October 4 2014.

Sharma, Reetu. "With One Out of Every Three Graduates Unemployed in India, Will Modi be Able to Fulfill His Promise?" *One India News*. 24 September 2014. Web. 25 September 2014.

Sheskin David. *Handbook of Parametric and Nonparametric Statistical Procedures*. 3rd ed. Boca Raton: Chapman & Hall/CRC, 2004. Print.

Shine. "List of Top Engineering and Infrastructure Companies" *Shine.com*. Web. 2 October 2014.

Smith, Timothy. "Measurement in Health Psychology Research." *The Oxford Handbook of Health Psychology*. Ed. Howard S. Friedman. New York: Oxford University Press, 2011. 42-72. Print.

Statistical Package for the Social Sciences. Vers. 17.0. Computer Software. *International Business Machines*, 2008. Windows Vista. 305.05 MB. disk.

Statsky, William. *Family Law: The Essentials*. 3rd ed. Stamford: Cengage Learning, 2004. Print.

Teddlie, Charles and Abbas Tashakkori. *Foundations of Mixed Methods Research: Integrating Quantitative and Qualitative Approaches in the Social and Behavioral Sciences*. Thousand Oaks: Sage, 2009. Print.

The Economic Times. "Number of Registered Companies in India Crosses 13-Lakh Mark." 16 July 2013. Web. 1 October 2014.

Tolmie, Andy, Daniel Mujis, and Erica McAteer. *Quantitative Methods in Educational and Social Research: Using SPSS*. New York: Open University Press, 2011. Print.

Vitberg, Alan. "Developing Your Personal Brand Equity: A 21st Century Approach". *Journal of Accountancy* 210.1 (2010): n. pag. Web. 29 September 2014.

Vogt, W. Paul, Diane Gardner, and Lynne Haeffele. *When to Use What Research Design*. New York: Guilford, 2012. Print.

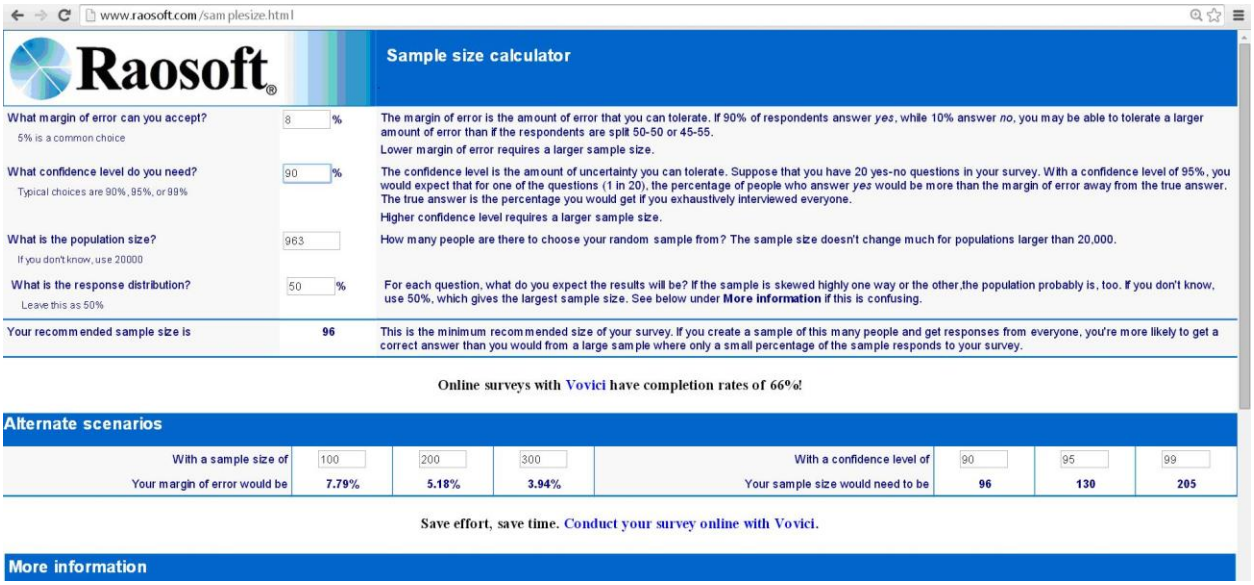
Waldman, Joshua. *Job Searching with Social Media for Dummies*. 2nd ed. Hoboken: John Wiley & Sons, 2013. Web[19].

Walliser, Antje. *Successful Branding: A Critical Examination of Customer Experience Management for Personal International*. Hamburg: Diplomica, 2006. Print.

Zikmund, William, Barry Babbin. Jon Carr, and Mitch Griffin. *Business Research Methods*. 9th ed. Mason: South-Western/Cengage Learning, 2013. Print.

Appendices

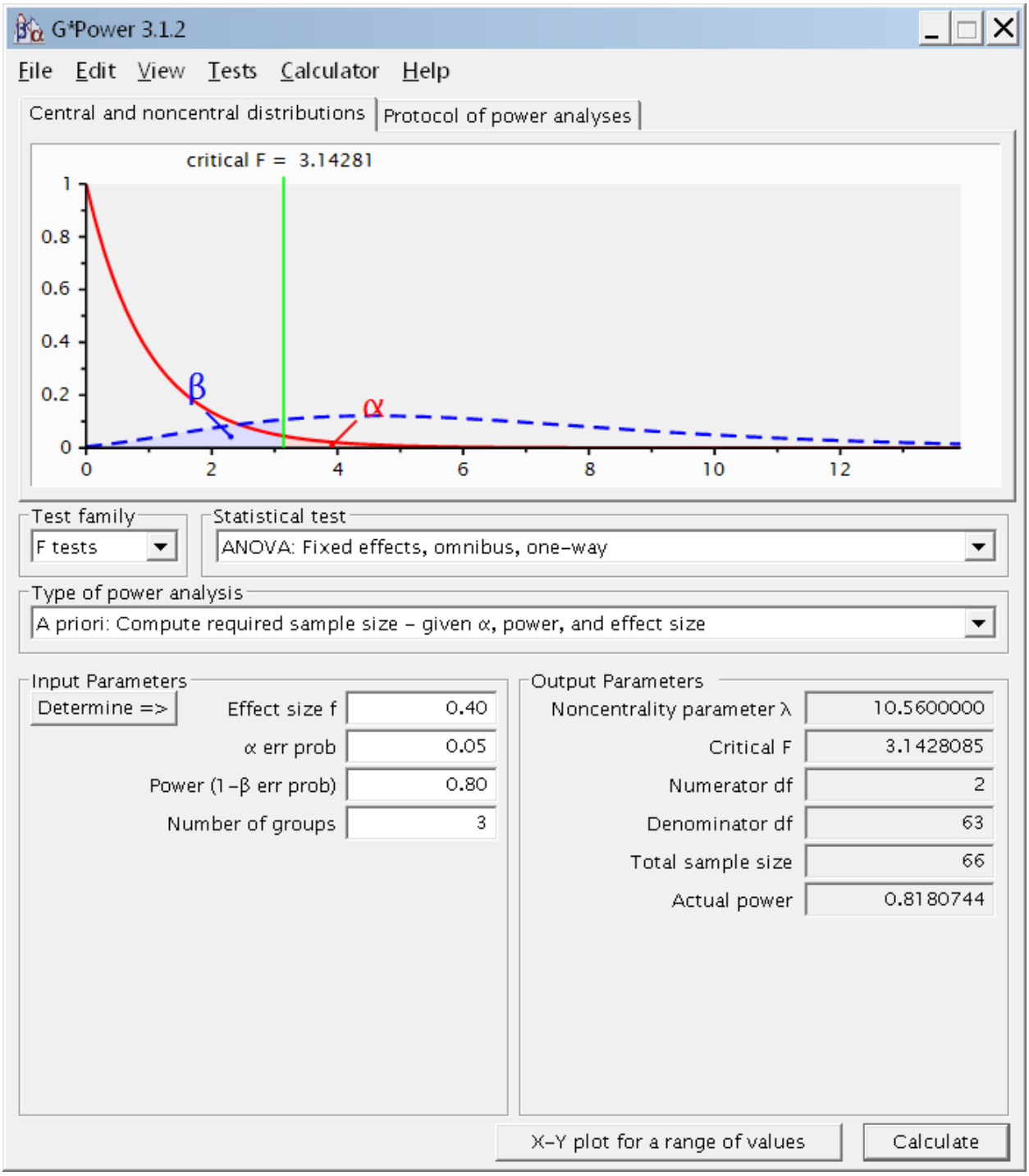
Appendix 1. Screenshot of Online Sample Size Calculation Output



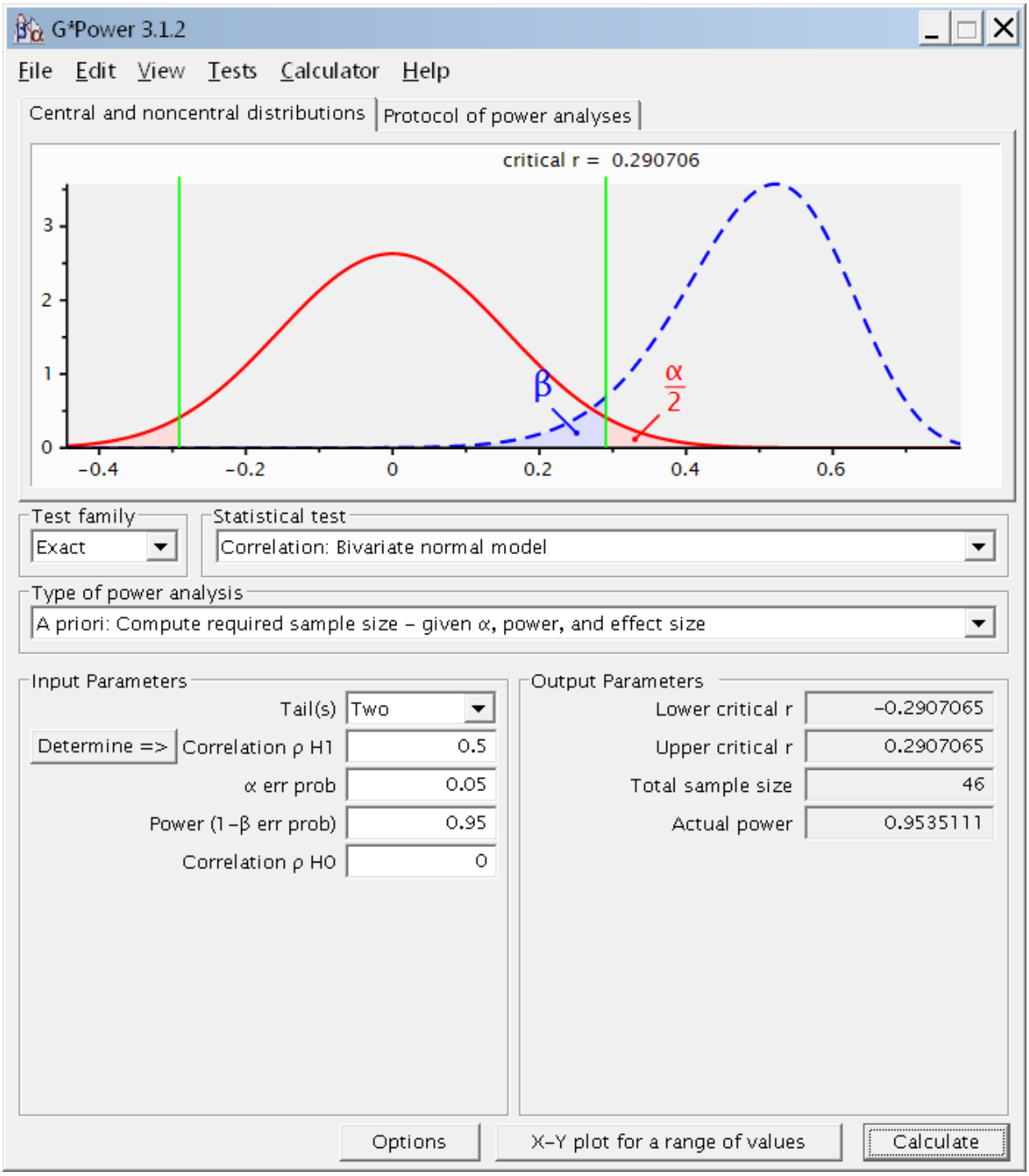
Appendix 2. Screenshots A-priori Statistical Power Calculation Output

For One-Way Analysis of Variance

[19] This is an eBook.



For Pearson's Correlation



Appendix 3. Research Instruments

Cover Letter (Common)

Dear Student/Faculty/Employer

The following questionnaire is being administered by this researcher for academic purposes - a PhD research paper. The study aims to analyze the relationship between personal branding and employability among engineering students in Bangalore, India. Hopefully, the findings of this study will contribute towards the alleviation of the unemployment challenges being faced by engineering graduates in the country. I am thinking of recruiting you to participate as one of the study respondents.

Being an educational research, your participation will only involve responding to a survey questionnaire. (In the case of students, you will be requested to complete a personal branding worksheet, submit your resume and your student portfolio.) Hence, there are no possible risks that may endanger your life, health, safety or general well-being as a participant. Your anonymity and privacy will be safeguarded during data processing and analysis. I assure you than none of your responses (or documents you submitted) can be traced back to you because after the study is defended and findings are disseminated, all the research instruments and the digital files will be shredded and/or carefully disposed.

The principle of informed consent will be applied in the study and the data-gathering procedure. Participants who agree to be part of the study are encouraged to understand (and ask questions to the researcher, if necessary) all the aspects of the study that may affect your decision to continue or withdraw your participation as respondent of the study. Even if you voluntarily agreed to be part of the study, you may withdraw your participation anytime without any reservations. Also, please do rest assured that all possible efforts will be made to recommend to the school management about how you can be best educated for future employability based on the study findings.

This part of the questionnaire-rating scale serves as your informed consent form. Your decision to return the completed questionnaire back to the researcher (together with the worksheet, resume, and portfolio in the case of students) is regarded equivalent to affixing your

signature of consent for your voluntary participation. My complete contact details are included in this questionnaire. Please feel free to communicate with me anytime during the period of the study, especially while you are filling in the questionnaire (or preparing the worksheet). My utmost gratitude for your voluntary participation.

Researchers Name

Murali S

Questionnaire-Rating Scale-For Student Respondents

Part 1. Respondent's Profile

Instruction: Kindly indicate your response by marking the appropriate box (☑ or ☒).

3. What is your course or specialization?

☐ Civil Engineering
☐ Computer Engineering
☐ Electrical and Electronics Engineering or Electronics and Communications Engineering

4. In what year-level are you now?

☐ Fourth Year
☐ Third Year

Part 2. Personal Branding and its Most Important Attributes

Instructions: Given the following statements, kindly provide your reaction by selecting one of the response alternatives that applies in your case or by indicating your reaction in the space provided for.

2. I have started creating my personal brand.
    g. Of course, even before college.
    h. Yes, during the last few years in college.

i. I'm not sure, I need guidance.
j. I heard about the term, but I really do not know if: it is applicable in my case, if I really need one, or what that means.
k. No. I am clueless about that term.
l. Other - Please specify: _____

2. As a student, personal branding refers to finding out how I can create value for my reputation, both as a learner and as a prospective employee.
    f. I strongly agree.
    g. I agree to some extent.
    h. I neither agree nor disagree.
    i. I slightly disagree.
    j. I strongly disagree.

Personal branding is theoretically defined as an "identity that stimulates precise, meaningful perceptions in its audience about the values that a person stands for" (Montoya, qtd. in Rampersad 7), where the term 'audience' refers to people whose interest in your personal brand is important in building up your good reputation. As students, and for the purpose of this study, you may consider your audience as your professors and other faculty members in your learning institution and your would-be employers. On the basis of the foregoing statements, please provide the level of importance of the following attributes in the personal brand you have created or intend to create in the near future. Each of the attributes is briefly explained to facilitate your completion of the questionnaire.

14. Audience: The audience comprise of people one intends to evoke interest in the personal brand. Examples are: professors, prospective employers, prospective clients, etc.
    f. Very important
    g. Important
    h. Somewhat important
    i. Neither important nor unimportant

j. Absolutely not important.

15. Audience needs: Need or needs refer to specific gap or gaps one intends to satisfy within the context of the audience. Examples are job positions which you expect to apply for such as technical staff, administrative assistant, a managerial role in an engineering firm, etc.
    f. Very important
    g. Important
    h. Somewhat important
    i. Neither important nor unimportant
    j. Absolutely not important.

16. Points of comparison: Points of comparison refer to the 'who and what' of where the personal brand conveyed will be compared to by the audience in regard to fulfilling a need. Engineering graduates are typically compared to other engineering graduates of the same field. However, depending on the need being filled, a starting position in an engineering firm that is being eyed as a trainee for a supervisory role may compare en engineering graduate with not so impressive leadership skills to an engineering or non-engineering undergraduate who has excellent leadership qualities.
    f. Very important
    g. Important
    h. Somewhat important
    i. Neither important nor unimportant
    j. Absolutely not important.

17. Unique strengths: Unique strengths of one's personal brand are the benefits that prospective audience can derive when one is entrusted to fill in a need. Unique strengths comprise a person's brand promise. Some experts call unique strengths as 'freak factor' which identifies a unique quality that makes one different and

unusual. Examples are: excellent written and oral communication skills, research expertise, leadership, and team-ship skills.

a. Very important
b. Important
c. Somewhat important
d. Neither important nor unimportant
e. Absolutely not important.

18. Delivery capability: Delivery capability refers to evidence or proof that the unique strengths in the personal brand being conveyed can be delivered. Examples of such proof are your education, work experience, training experience, etc.

f. Very important
g. Important
h. Somewhat important
i. Neither important nor unimportant
j. Absolutely not important.

19. Brand character: Brand character reflects one personality, attitude and temperament.

f. Very important
g. Important
h. Somewhat important
i. Neither important nor unimportant
j. Absolutely not important.

20. Mission: Mission refers to statements that spell out what one is all about and what one aims to do in life.

f. Very important
g. Important
h. Somewhat important
i. Neither important nor unimportant

j. Absolutely not important.

21. Vision: Vision reflects on the mission and elucidates a possibility about a person and his brand.
    f. Very important
    g. Important
    h. Somewhat important
    i. Neither important nor unimportant
    j. Absolutely not important.

22. Personality attributes: Personality attributes are descriptors of the face that one shows to the world. For example, a Google+ user, an engineer, developed the following personal brand: “Being smart doesn't have to be boring. Who says skill with numbers and letters are mutually exclusive events? ... I'm in my comfort zone with both numbers and letters”.
    f. Very important
    g. Important
    h. Somewhat important
    i. Neither important nor unimportant
    j. Absolutely not important.

23. 360º feedback: The 360º feedback attribute consists of the information about one’s character provided by people who have good and sufficient knowledge about a person. Such feedback may come from co-workers or friends.
    f. Very important
    g. Important
    h. Somewhat important
    i. Neither important nor unimportant
    j. Absolutely not important.

24. Goals: The goals in one’s personal branding refer to what one wants to achieve.

f. Very important
g. Important
h. Somewhat important
i. Neither important nor unimportant
j. Absolutely not important.

Part 3. Perception of Students' Personal Brand Among the Three Groups of Respondents

Instructions: Given the following statements and reflecting on the personal brand, resume, portfolio and other documents you submitted for evaluation, kindly provide your honest and confident assessment as to how each element of your personal brand measures up to the standards of your 'audience' by selecting one of the response alternatives that applies in your case.

13. Audience
    a. Excellent
    b. Very good
    c. Good or average
    d. Fair or below average
    e. Poor

14. Audience need(s)
    a. Excellent
    b. Very good
    c. Good or average
    d. Fair or below average
    e. Poor

15. Point(s) of comparison
    a. Excellent

b. Very good
c. Good or average
d. Fair or below average
e. Poor

16. Unique strengths
    a. Excellent
    b. Very good
    c. Good or average
    d. Fair or below average
    e. Poor

17. Delivery capability
    a. Excellent
    b. Very good
    c. Good or average
    d. Fair or below average
    e. Poor

18. Brand character
    a. Excellent
    b. Very good
    c. Good or average
    d. Fair or below average
    e. Poor

19. Mission
    a. Excellent
    b. Very good
    c. Good or average
    d. Fair or below average

e. Poor

20. Vision
    a. Excellent
    b. Very good
    c. Good or average
    d. Fair or below average
    e. Poor

21. Personality attributes
    a. Excellent
    b. Very good
    c. Good or average
    d. Fair or below average
    e. Poor

22. 360º feedback
    a. Excellent
    b. Very good
    c. Good or average
    d. Fair or below average
    e. Poor

23. Goals
    a. Excellent
    b. Very good
    c. Good or average
    d. Fair or below average
    e. Poor

Part 4. Students' Employability

Instructions: Kindly provide your honest and confident assessment as to how employable you are based on the personal brand, resume, portfolio and other documents you submitted for evaluation.

2. How employable are you?
    f. Highly employable
    g. Very employable
    h. Employable
    i. Needs some improvement to be employable
    j. Needs a lot of improvement to be employable

5. What are the top three most employable elements of your personal brand? Kindly check the rank beside each element. Strictly one element per rank position please.
    ☐1 ☐2 ☐3 - Audience needs
    ☐1 ☐2 ☐3 - Points of comparison
    ☐1 ☐2 ☐3 - Unique strengths
    ☐1 ☐2 ☐3 - Delivery capability
    ☐1 ☐2 ☐3 - Brand character
    ☐1 ☐2 ☐3 - Mission
    ☐1 ☐2 ☐3 - Vision
    ☐1 ☐2 ☐3 - Personality attributes
    ☐1 ☐2 ☐3 - 360º feedback
    ☐1 ☐2 ☐3 - Goals

6. What three elements of your personal brand that need improvement. Rank the element which needs the biggest improvement as 1.
    ☐1 ☐2 ☐3 - Audience needs
    ☐1 ☐2 ☐3 - Points of comparison
    ☐1 ☐2 ☐3 - Unique strengths
    ☐1 ☐2 ☐3 - Delivery capability
    ☐1 ☐2 ☐3 - Brand character

☐1 ☐2 ☐3 - Mission
☐1 ☐2 ☐3 - Vision
☐1 ☐2 ☐3 - Personality attributes
☐1 ☐2 ☐3 - 360º feedback
☐1 ☐2 ☐3 - Goals

7. Do you think that personal branding will influences your employability?
    a. Yes, to a big extent
    b. Yes, to some extent
    c. It depends on the field of engineering
    d. Not always, it is on a case to case basis
    e. Not really, employability is a matter of luck.

Questionnaire-Rating Scale-For Faculty Respondents

Part 1. Respondent's Profile

Instruction: Kindly indicate your response by marking the appropriate box (☑ or ☒).

3. What academic department do you represent?

☐ Civil Engineering
☐ Computer Engineering
☐ Electrical and Electronics Engineering or Electronics and Communications Engineering

4. What is your current academic rank in the institution?

☐ Professor
☐ Assistant Professor
☐ Associate Professor

Part 2. Personal Branding and its Most Important Attributes

Personal branding is theoretically defined as an "identity that stimulates precise, meaningful perceptions in its audience about the values that a person stands for" (Montoya, qtd. in Rampersad 7), where the term 'audience' refers to people whose interest in your personal brand is important in building up your good reputation. Please provide the level of importance of the following attributes in the personal brand created by the students. Each of the attributes is briefly explained to facilitate your completion of the questionnaire.

12. Audience: The audience comprise of people one intends to evoke interest in the personal brand. Examples are: professors, prospective employers, prospective clients, etc.
    e. Very important
    f. Important
    g. Somewhat important
    h. Neither important nor unimportant
    c. Absolutely not important.

13. Audience needs: Need or needs refer to specific gap or gaps one intends to satisfy within the context of the audience. Examples are job positions which you expect to apply for such as technical staff, administrative assistant, a managerial role in an engineering firm, etc.
    e. Very important
    f. Important
    g. Somewhat important
    h. Neither important nor unimportant
    d. Absolutely not important.

14. Points of comparison: Points of comparison refer to the 'who and what' of where the personal brand conveyed will be compared to by the audience in regard to fulfilling a need. Engineering graduates are typically compared to other engineering graduates of the same field. However, depending on the need being

filled, a starting position in an engineering firm that is being eyed as a trainee for a supervisory role may compare en engineering graduate with not so impressive leadership skills to an engineering or non-engineering undergraduate who has excellent leadership qualities.

f. Very important
g. Important
h. Somewhat important
i. Neither important nor unimportant
j. Absolutely not important.

15. Unique strengths: Unique strengths of one's personal brand are the benefits that prospective audience can derive when one is entrusted to fill in a need. Unique strengths comprise a person's brand promise. Some experts call unique strengths as 'freak factor' which identifies a unique quality that makes one different and unusual. Examples are: excellent written and oral communication skills, research expertise, leadership, and team-ship skills.

a. Very important
b. Important
c. Somewhat important
d. Neither important nor unimportant
e. Absolutely not important.

16. Delivery capability: Delivery capability refers to evidence or proof that the unique strengths in the personal brand being conveyed can be delivered. Examples of such proof are your education, work experience, training experience, etc.

f. Very important
g. Important
h. Somewhat important
i. Neither important nor unimportant
j. Absolutely not important.

17. Brand character: Brand character reflects one personality, attitude and temperament.
    f. Very important
    g. Important
    h. Somewhat important
    i. Neither important nor unimportant
    j. Absolutely not important.

18. Mission: Mission refers to statements that spell out what one is all about and what one aims to do in life.
    f. Very important
    g. Important
    h. Somewhat important
    i. Neither important nor unimportant
    j. Absolutely not important.

19. Vision: Vision reflects on the mission and elucidates a possibility about a person and his brand.
    f. Very important
    g. Important
    h. Somewhat important
    i. Neither important nor unimportant
    j. Absolutely not important.

20. Personality attributes: Personality attributes are descriptors of the face that one shows to the world. For example, a Google+ user, an engineer, developed the following personal brand: “Being smart doesn't have to be boring. Who says skill with numbers and letters are mutually exclusive events? ... I'm in my comfort zone with both numbers and letters”.
    f. Very important
    g. Important

h. Somewhat important
i. Neither important nor unimportant
j. Absolutely not important.

21. 360º feedback: The 360º feedback attribute consists of the information about one's character provided by people who have good and sufficient knowledge about a person. Such feedback may come from co-workers or friends.
    f. Very important
    g. Important
    h. Somewhat important
    i. Neither important nor unimportant
    j. Absolutely not important.

22. Goals: The goals in one's personal branding refer to what one wants to achieve.
    f. Very important
    g. Important
    h. Somewhat important
    i. Neither important nor unimportant
    j. Absolutely not important.

Part 3. Perception of Students' Personal Brand Among the Three Groups of Respondents

Instructions: Given the following statements and reflecting on the personal brand, resume, portfolio and other documents submitted for evaluation, kindly provide your honest and confident assessment as to how each element of the students' personal brands measure up to the standards of their 'audience' by selecting one of the response alternatives.

2. Audience
    f. Excellent
    g. Very good
    h. Good or average
    i. Fair or below average

j. Poor

12. Audience need(s)
    f. Excellent
    g. Very good
    h. Good or average
    i. Fair or below average
    j. Poor

13. Point(s) of comparison
    f. Excellent
    g. Very good
    h. Good or average
    i. Fair or below average
    j. Poor

14. Unique strengths
    f. Excellent
    g. Very good
    h. Good or average
    i. Fair or below average
    j. Poor

15. Delivery capability
    f. Excellent
    g. Very good
    h. Good or average
    i. Fair or below average
    j. Poor

16. Brand character

f. Excellent
g. Very good
h. Good or average
i. Fair or below average
j. Poor

17. Mission

f. Excellent
g. Very good
h. Good or average
i. Fair or below average
j. Poor

18. Vision

f. Excellent
g. Very good
h. Good or average
i. Fair or below average
j. Poor

19. Personality attributes

f. Excellent
g. Very good
h. Good or average
i. Fair or below average
j. Poor

20. 360º feedback

f. Excellent
g. Very good
h. Good or average

i. Fair or below average
j. Poor

21. Goals
    f. Excellent
    g. Very good
    h. Good or average
    i. Fair or below average
    j. Poor

Part 4. Students' Employability

Instructions: Kindly provide your honest and confident assessment as to how employable the students are based on the personal brand, resume, portfolio and other documents they submitted for evaluation.

2. How employable are you?
    f. Very employable
    g. Employable
    h. Unsure
    i. Needs some improvement to be employable
    j. Needs a lot of improvement to be employable

5. What are the top three most employable elements of their personal brand? Kindly check the rank beside each element. Strictly one element per rank position please.
    ☐1 ☐2 ☐3 - Audience needs
    ☐1 ☐2 ☐3 - Points of comparison
    ☐1 ☐2 ☐3 - Unique strengths
    ☐1 ☐2 ☐3 - Delivery capability
    ☐1 ☐2 ☐3 - Brand character
    ☐1 ☐2 ☐3 - Mission

☐1 ☐2 ☐3 - Vision

☐1 ☐2 ☐3 - Personality attributes

☐1 ☐2 ☐3 - 360º feedback

☐1 ☐2 ☐3 - Goals

6. What three elements of their personal brand that need improvement. Rank the element which needs the biggest improvement as 1.

   ☐1 ☐2 ☐3 - Audience needs

   ☐1 ☐2 ☐3 - Points of comparison

   ☐1 ☐2 ☐3 - Unique strengths

   ☐1 ☐2 ☐3 - Delivery capability

   ☐1 ☐2 ☐3 - Brand character

   ☐1 ☐2 ☐3 - Mission

   ☐1 ☐2 ☐3 - Vision

   ☐1 ☐2 ☐3 - Personality attributes

   ☐1 ☐2 ☐3 - 360º feedback

   ☐1 ☐2 ☐3 - Goals

7. Do you think that personal branding will influence their employability?

   f. Yes, to a big extent

   g. Yes, to some extent

   h. It depends on the field of engineering

   i. Not always, it is on a case to case basis

   j. Not really, employability is a matter of luck.

Questionnaire-Rating Scale-For Employer Respondents

Part 1. Respondent's Profile

3. What engineering specializations do you hire in the company? Please check all that apply.

☐ Civil Engineering
☐ Computer Engineering
☐ Electrical and Electronics Engineering or Electronics and Communications Engineering

4. What is your current designation/position in the company?

☐ HR Director
☐ HR Manager
☐ HR Supervisor
☐ Other: Please specify:

Part 2. Personal Branding and its Most Important Attributes

Personal branding is theoretically defined as an "identity that stimulates precise, meaningful perceptions in its audience about the values that a person stands for" (Montoya, qtd. in Rampersad 7), where the term 'audience' refers to people whose interest in your personal brand is important in building up your good reputation. Please provide the level of importance of the following attributes in the personal brand created by the students. Each of the attributes is briefly explained to facilitate your completion of the questionnaire.

12. Audience: The audience comprise of people one intends to evoke interest in the personal brand. Examples are: professors, prospective employers, prospective clients, etc.
    f. Very important
    g. Important
    h. Somewhat important
    i. Neither important nor unimportant
    j. Absolutely not important.

13. Audience needs: Need or needs refer to specific gap or gaps one intends to satisfy within the context of the audience. Examples are job positions which you expect to apply for such as technical staff, administrative assistant, a managerial role in an engineering firm, etc.
    f. Very important
    g. Important
    h. Somewhat important
    i. Neither important nor unimportant
    j. Absolutely not important.

14. Points of comparison: Points of comparison refer to the 'who and what' of where the personal brand conveyed will be compared to by the audience in regard to fulfilling a need. Engineering graduates are typically compared to other engineering graduates of the same field. However, depending on the need being filled, a starting position in an engineering firm that is being eyed as a trainee for a supervisory role may compare en engineering graduate with not so impressive leadership skills to an engineering or non-engineering undergraduate who has excellent leadership qualities.
    f. Very important
    g. Important
    h. Somewhat important
    i. Neither important nor unimportant
    j. Absolutely not important.

15. Unique strengths: Unique strengths of one's personal brand are the benefits that prospective audience can derive when one is entrusted to fill in a need. Unique strengths comprise a person's brand promise. Some experts call unique strengths as 'freak factor' which identifies a unique quality that makes one different and unusual. Examples are: excellent written and oral communication skills, research expertise, leadership, and team-ship skills.

f. Very important
g. Important
h. Somewhat important
i. Neither important nor unimportant
j. Absolutely not important.

16. Delivery capability: Delivery capability refers to evidence or proof that the unique strengths in the personal brand being conveyed can be delivered. Examples of such proof are your education, work experience, training experience, etc.
    f. Very important
    g. Important
    h. Somewhat important
    i. Neither important nor unimportant
    j. Absolutely not important.

17. Brand character: Brand character reflects one personality, attitude and temperament.
    f. Very important
    g. Important
    h. Somewhat important
    i. Neither important nor unimportant
    j. Absolutely not important.

18. Mission: Mission refers to statements that spell out what one is all about and what one aims to do in life.
    f. Very important
    g. Important
    h. Somewhat important
    i. Neither important nor unimportant
    j. Absolutely not important.

19. Vision: Vision reflects on the mission and elucidates a possibility about a person and his brand.
    f. Very important
    g. Important
    h. Somewhat important
    i. Neither important nor unimportant
    j. Absolutely not important.

20. Personality attributes: Personality attributes are descriptors of the face that one shows to the world. For example, a Google+ user, an engineer, developed the following personal brand: “Being smart doesn't have to be boring. Who says skill with numbers and letters are mutually exclusive events? ... I'm in my comfort zone with both numbers and letters”.
    f. Very important
    g. Important
    h. Somewhat important
    i. Neither important nor unimportant
    j. Absolutely not important.

21. 360º feedback: The 360º feedback attribute consists of the information about one’s character provided by people who have good and sufficient knowledge about a person. Such feedback may come from co-workers or friends.
    f. Very important
    g. Important
    h. Somewhat important
    i. Neither important nor unimportant
    j. Absolutely not important.

22. Goals: The goals in one’s personal branding refer to what one wants to achieve.
    f. Very important
    g. Important

h. Somewhat important
i. Neither important nor unimportant
j. Absolutely not important.

Part 3. Perception of Students' Personal Brand Among the Three Groups of Respondents

Instructions: Given the following statements and reflecting on the personal brand, resume, portfolio and other documents submitted for evaluation, kindly provide your honest and confident assessment as to how each element of the students' personal brands measure up to the standards of their 'audience' by selecting one of the response alternatives.

2. Audience
    f. Excellent
    g. Very good
    h. Good or average
    i. Fair or below average
    j. Poor

12. Audience need(s)
    f. Excellent
    g. Very good
    h. Good or average
    i. Fair or below average
    j. Poor

13. Point(s) of comparison
    f. Excellent
    g. Very good
    h. Good or average
    i. Fair or below average
    j. Poor

14. Unique strengths
    f. Excellent
    g. Very good
    h. Good or average
    i. Fair or below average
    j. Poor

15. Delivery capability
    f. Excellent
    g. Very good
    h. Good or average
    i. Fair or below average
    j. Poor

16. Brand character
    f. Excellent
    g. Very good
    h. Good or average
    i. Fair or below average
    j. Poor

17. Mission
    f. Excellent
    g. Very good
    h. Good or average
    i. Fair or below average
    j. Poor

18. Vision
    f. Excellent

g. Very good
h. Good or average
i. Fair or below average
j. Poor

19. Personality attributes

f. Excellent
g. Very good
h. Good or average
i. Fair or below average
j. Poor

20. 360º feedback

f. Excellent
g. Very good
h. Good or average
i. Fair or below average
j. Poor

21. Goals

f. Excellent
g. Very good
h. Good or average
i. Fair or below average
j. Poor

Part 4. Students' Employability

Instructions: Kindly provide your honest and confident assessment as to how employable the students are based on the personal brand, resume, portfolio and other documents they submitted for evaluation.

2. How employable are you?
    f. Very employable
    g. Employable
    h. Unsure
    i. Needs some improvement to be employable
    j. Needs a lot of improvement to be employable

5. What are the top three most employable elements of their personal brand? Kindly check the rank beside each element. Strictly one element per rank position please.
    ☐1 ☐2 ☐3 - Audience needs
    ☐1 ☐2 ☐3 - Points of comparison
    ☐1 ☐2 ☐3 - Unique strengths
    ☐1 ☐2 ☐3 - Delivery capability
    ☐1 ☐2 ☐3 - Brand character
    ☐1 ☐2 ☐3 - Mission
    ☐1 ☐2 ☐3 - Vision
    ☐1 ☐2 ☐3 - Personality attributes
    ☐1 ☐2 ☐3 - 360º feedback
    ☐1 ☐2 ☐3 - Goals

6. What three elements of their personal brand that need improvement. Rank the element which needs the biggest improvement as 1.
    ☐1 ☐2 ☐3 - Audience needs
    ☐1 ☐2 ☐3 - Points of comparison
    ☐1 ☐2 ☐3 - Unique strengths
    ☐1 ☐2 ☐3 - Delivery capability
    ☐1 ☐2 ☐3 - Brand character

☐1 ☐2 ☐3 - Mission

☐1 ☐2 ☐3 - Vision

☐1 ☐2 ☐3 - Personality attributes

☐1 ☐2 ☐3 - 360º feedback

☐1 ☐2 ☐3 - Goals

7. Do you think that personal branding will influence their employability?
    k. Yes, to a big extent
    l. Yes, to some extent
    m. It depends on the field of engineering
    n. Not always, it is on a case to case basis
    o. Not really, employability is a matter of luck.

6. Kindly provide the level of importance of the following skills in your assessment of a work applicant's employability by marking the appropriate box. The numbers beside each box signify the level of importance: **1** indicates *absolutely not important*; **2** indicates *neither important or unimportant*; **3** *indicates somewhat important*; **4** indicates *important*; and **5** indicates *very important.*

Rating						**Skills**
☐1	☐2	☐3	☐4	☐5		Advance computer skills
☐1	☐2	☐3	☐4	☐5		Basic computer skills
☐1	☐2	☐3	☐4	☐5		Client service skills
☐1	☐2	☐3	☐4	☐5		Data analysis
☐1	☐2	☐3	☐4	☐5		Empathy
☐1	☐2	☐3	☐4	☐5		English communication skills
☐1	☐2	☐3	☐4	☐5		Entrepreneurship skills
☐1	☐2	☐3	☐4	☐5		Flexibility
☐1	☐2	☐3	☐4	☐5		Integrity
☐1	☐2	☐3	☐4	☐5		Know-how on engineering-related experiments
☐1	☐2	☐3	☐4	☐5		Knowledge of contemporary issues

☐1	☐2	☐3	☐4	☐5		Mathematical/scientific/technological knowledge
☐1	☐2	☐3	☐4	☐5		Problem-solving
☐1	☐2	☐3	☐4	☐5		Proficiency with modern tools
☐1	☐2	☐3	☐4	☐5		Reliability
☐1	☐2	☐3	☐4	☐5		Self-discipline
☐1	☐2	☐3	☐4	☐5		Self-motivated
☐1	☐2	☐3	☐4	☐5		System design proficiency
☐1	☐2	☐3	☐4	☐5		Teamwork
☐1	☐2	☐3	☐4	☐5		Technical skills
☐1	☐2	☐3	☐4	☐5		Understanding and carrying out directions
☐1	☐2	☐3	☐4	☐5		Verbal communication skills
☐1	☐2	☐3	☐4	☐5		Willingness to learn
☐1	☐2	☐3	☐4	☐5		Written communication skills

Part 5. Enhacing Students' Employability

What recommendations can you provide to help improve the employability of engineering students and graduates based on the evidence gathered?

_____

_____

_____

_____

_____

Personal Branding Worksheet

PERSONAL BRANDING WORKSHEET
AUDIENCE
Describe your audience in terms of demographics. What are the social characteristics of this person or group?
Describe your audience in terms of psychographics. What are the psychological characteristics of this person or group? This may include attitudes and mindset.
Identify the key behaviors of your audience. These comprise of observable manners of behaving or acting
AUDIENCE NEEDS
Identify the audience needs that you will fulfill. Include functional and emotional needs.
POINTS OF COMPARISON
Identify your desired title. Based on this job title, how do you want to be perceived (your brand is starting to take shape now.)

UNIQUE STRENGTHS
Identify your unique strengths and the future strengths you can develop.
DELIVERY CAPABILITY
Justify why and how should your target audience should take your word about your unique strengths.
BRAND CHARACTER
Personal brand character includes one's overriding attitude, temperament and personality.
MISSION
What is your brand all about? What do you aim to do in life with this personal brand?

VISION
How will your personal brand reflect your mission? What do you forsee of your personal brand and your life as this brand/
PERSONALITY ATTRIBUTES
Describe the face that you wish to show to the world.
360º FEEDBACK
What do people say about you, your character, and/or your brand?
GOALS
What do you want to achieve with your personal brand?

Appendix 4. Optional Guidelines for Submission of Resume and Student Portfolio

15. At the very least, your resume should contain the following:

a. Contact information: Name, Address, Phone, Email Address, Website URL.
b. A well-defined job objective
c. Work history
d. Educational history
e. Affiliations (if any)
f. References

16. The main goal of your student portfolio is the serve as a showcase of how your knowledge and skills will suit the needs or requirements for your intended ‘audience’.

17. Your portfolio should include information relative to the job title that you prospect to get.

18. It would serve best to create a professional portfolio, not a student portfolio, that will look like one for promotional level (academic) evaluation.

19. The portfolio should serve as an evidence showcase of the brand that you developed using the worksheet.

20. If you are banking on your GPA to get the attention of an employer, show evidence via a certificate of grades, classcards, or a transcript of records, if available.

21. Evidence of measurable skills you highlighted in your personal brand should be included in the showcase.

22. Before even developing your personal brand, familiarize yourself with the following checklist on how you can include evidence of the following in your portfolio.

☐	Advance computer skills

☐	Basic computer skills
☐	Client service skills
☐	Data analysis
☐	Empathy
☐	English communication skills
☐	Entrepreneurship skills
☐	Flexibility
☐	Integrity
☐	Know-how on engineering-related experiments
☐	Knowledge of contemporary issues
☐	Mathematical/scientific/technological knowledge
☐	Problem-solving
☐	Proficiency with modern tools
☐	Reliability
☐	Self-discipline
☐	Self-motivated
☐	System design proficiency
☐	Teamwork
☐	Technical skills
☐	Understanding and carrying out directions
☐	Verbal communication skills
☐	Willingness to learn
	Written communication skills

23. Be creative in compiling the elements of your portfolio. Organize it in such a way as the evaluator will perceive that you are systematic and logical.

24. There are skills which can not be documented by tangible evidence.

25. Organize your portfolio to emphasize your best points/ skills on the brand that you decided to develop for yourself.

26. Be original, but be simple, formal and straightforward.

27. Absolutely no scrapbook style designs in the portfolio please.

28. Keep all your submissions clean and neat.

References:

Blom, Andreas and Hiroshi Saeki. *Employability and Skill Set of Newly Graduated Engineers in India*. Washington, DC: The World Bank, 2011. PDF file.[20]

Jones, Marian and Shelton, Marilyn. *Developing Your Portfolio: Enhancing Your Learning and Showing Your Stuff*. 2nd ed. New York: Routledge, 2011. Print.

Parker Yana and Beth Brown. *The Damn Good Resume Guide: A Crash Course in Resume Writing*. 5th ed. New York: Crown-Random House, 2012. Print.

Appendix 5. Internal Consistency Reliability Analysis Using Cronbach Alpha from SPSS

Reliability

[DataSetPilot]

Scale: Common Items Part 2

Case Processing Summary			
		N	%
Cases	Valid	10	100.0
	Excluded[a]	0	.0
	Total	10	100.0
a. Listwise deletion based on all variables in the procedure.			

Reliability Statistics

[20] This is an eBook.

Cronbach's Alpha	N of Items
.853	11

Scale: Part 3

Case Processing Summary			
		N	%
Cases	Valid	10	100.0
	Excluded[a]	0	.0
	Total	10	100.0
a. Listwise deletion based on all variables in the procedure.			

Reliability Statistics	
Cronbach's Alpha	N of Items
.925	11

Scale: Part 4 - Item No. 29 (24 sub-items)

Case Processing Summary			
		N	%
Cases	Valid	10	100.0
	Excluded[a]	0	.0
	Total	10	100.0
a. Listwise deletion based on all variables in the procedure.			

Reliability Statistics	
Cronbach's Alpha	N of Items
.836	24

Appendix 6. SPSS Workings for the Hypotheses Testing

One-Way Analysis of Variance

		N	Mean	Std. Deviation

Audience	Civil Engineering	20	3.40	.503
	Computer Engineering	20	3.35	.489
	Electrical and Electronics Engineering/ECE	30	3.57	.504
	Total	70	3.46	.502
Audience needs	Civil Engineering	20	2.45	.510
	Computer Engineering	20	2.55	.510
	Electrical and Electronics Engineering/ECE	30	2.50	.509
	Total	70	2.50	.504
Points of Comparison	Civil Engineering	20	2.55	.510
	Computer Engineering	20	2.45	.510
	Electrical and Electronics Engineering/ECE	30	2.50	.509
	Total	70	2.50	.504
Unique strengths	Civil Engineering	20	3.55	.510
	Computer Engineering	20	3.50	.513
	Electrical and Electronics Engineering/ECE	30	3.33	.479
	Total	70	3.44	.500
Delivery capability	Civil Engineering	20	4.10	.852
	Computer Engineering	20	4.35	.671
	Electrical and Electronics Engineering/ECE	30	3.83	.747
	Total	70	4.06	.778
Brand character	Civil Engineering	20	3.15	.813
	Computer Engineering	20	2.85	.813
	Electrical and Electronics Engineering/ECE	30	2.73	.691
	Total	70	2.89	.772
Mission	Civil Engineering	20	2.50	.513
	Computer Engineering	20	2.55	.510
	Electrical and Electronics Engineering/ECE	30	2.53	.507
	Total	70	2.53	.503
Vision	Civil Engineering	20	2.40	.503
	Computer Engineering	20	2.45	.510
	Electrical and Electronics Engineering/ECE	30	2.53	.507
	Total	70	2.47	.503
Personality Attributes	Civil Engineering	20	2.85	.813
	Computer Engineering	20	2.90	.912

	Electrical and Electronics Engineering/ECE	30	3.07	.785
	Total	70	2.96	.824
360-degree feedback	Civil Engineering	20	2.20	1.005
	Computer Engineering	20	2.40	1.231
	Electrical and Electronics Engineering/ECE	30	2.47	1.137
	Total	70	2.37	1.119
Goals	Civil Engineering	20	3.95	.759
	Computer Engineering	20	3.70	.733
	Electrical and Electronics Engineering/ECE	30	3.90	.845
	Total	70	3.86	.785

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Audience	Between Groups	.655	2	.327	1.312	.276
	Within Groups	16.717	67	.250		
	Total	17.371	69			
Audience needs	Between Groups	.100	2	.050	.193	.825
	Within Groups	17.400	67	.260		
	Total	17.500	69			
Points of Comparison	Between Groups	.100	2	.050	.193	.825
	Within Groups	17.400	67	.260		
	Total	17.500	69			
Unique strengths	Between Groups	.655	2	.327	1.320	.274
	Within Groups	16.617	67	.248		
	Total	17.271	69			
Delivery capability	Between Groups	3.255	2	1.627	2.831	.066
	Within Groups	38.517	67	.575		
	Total	41.771	69			
Brand character	Between Groups	2.119	2	1.060	1.822	.170
	Within Groups	38.967	67	.582		
	Total	41.086	69			

Mission	Between Groups	.026	2	.013	.050	.951
	Within Groups	17.417	67	.260		
	Total	17.443	69			
Vision	Between Groups	.226	2	.113	.440	.646
	Within Groups	17.217	67	.257		
	Total	17.443	69			
Personality Attributes	Between Groups	.655	2	.327	.475	.624
	Within Groups	46.217	67	.690		
	Total	46.871	69			
360-degree feedback	Between Groups	.876	2	.438	.343	.711
	Within Groups	85.467	67	1.276		
	Total	86.343	69			
Goals	Between Groups	.721	2	.361	.577	.564
	Within Groups	41.850	67	.625		
	Total	42.571	69			

Kendall's Coefficient of Concordance

		N	Mean	Std. Deviation	Std. Error
Audience	Student	70	3.43	.498	.060
	Faculty Member	70	2.46	.502	.060
	Employer	70	2.51	.503	.060
	Total	210	2.80	.669	.046
Audience Needs	Student	70	3.47	.503	.060
	Faculty Member	70	2.46	.502	.060
	Employer	70	2.47	.503	.060
	Total	210	2.80	.690	.048
Points of Comparison	Student	70	4.00	.851	.102
	Faculty Member	70	2.43	.498	.060
	Employer	70	2.49	.503	.060
	Total	210	2.97	.968	.067
Unique Strengths	Student	70	3.94	.866	.104

	Faculty Member	70	2.96	.751	.090
	Employer	70	2.94	.866	.104
	Total	210	3.28	.949	.066
Delivery Capability	Student	70	3.89	.753	.090
	Faculty Member	70	2.83	.798	.095
	Employer	70	2.91	.812	.097
	Total	210	3.21	.920	.063
Brand Character	Student	70	4.57	.498	.060
	Faculty Member	70	2.74	.811	.097
	Employer	70	2.54	.502	.060
	Total	210	3.29	1.104	.076
Mission	Student	70	3.47	.503	.060
	Faculty Member	70	3.10	.887	.106
	Employer	70	2.57	.498	.060
	Total	210	3.05	.750	.052
Vision	Student	70	3.49	.503	.060
	Faculty Member	70	3.03	.798	.095
	Employer	70	2.61	.490	.059
	Total	210	3.04	.707	.049
Personality Attributes	Student	70	4.50	.504	.060
	Faculty Member	70	4.03	.742	.089
	Employer	70	3.51	.503	.060
	Total	210	4.01	.715	.049
360-degree Feedback	Student	70	4.59	.496	.059
	Faculty Member	70	4.14	.839	.100
	Employer	70	2.46	.502	.060
	Total	210	3.73	1.114	.077
Goals	Student	70	4.43	.498	.060
	Faculty Member	70	3.84	.810	.097
	Employer	70	2.41	.496	.059
	Total	210	3.56	1.048	.072

Ranks	
	Mean Rank
Audience	4.39
Audience Needs	4.37
Brand Character	6.29
Delivery Capability	5.91
Goals	7.00
360-degree Feedback	7.49

Mission	5.27
Personality Attributes	8.76
Points of Comparison	5.08
Unique Strengths	6.15
Vision	5.29

Test Statistics	
N	210
Kendall's W[a]	.200
Chi-Square	419.261
df	10
Asymp. Sig.	.000
a. Kendall's Coefficient of Concordance	

Independent Samples t-test

Group Statistics					
	Respondent Group	N	Mean	Std. Deviation	Std. Error Mean
Employability	Faculty	70	2.74	.440	.053
	Employer	70	2.01	.120	.014

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Employability	Equal variances assumed	148.077	.000	13.363	138	.000	.729	.055	.621	.836
	Equal variances not assumed			13.363	79.118	.000	.729	.055	.620	.837

Correlation Analysis

Correlations			
		Personal Branding	Students' Employability
Personal Branding	Pearson Correlation	1	.833**
	Sig. (2-tailed)		.000

	N	140	140
Students' Employability	Pearson Correlation	.833**	1
	Sig. (2-tailed)	.000	
	N	140	140
**. Correlation is significant at the 0.01 level (2-tailed).			