

# The Relationship between Graduates' Perceived Employability Attributes and Employability Gap in Egypt: The Moderating Roles of Core Self-Evaluation and University Branding

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Received: January 30, 2018

Accepted: February 26, 2018

Online Published: March 18, 2018

doi:10.5539/ijbm.v13n4p158

URL: <https://doi.org/10.5539/ijbm.v13n4p158>

## Abstract

The purpose of this study is to examine the relationship between university students' perceived employability attributes and perceived employability gap in Egypt; and to investigate the moderating effect of students' core self-evaluation and university branding on such a relation. A quota sample of 558 senior graduating business students was drawn from 6 public and private universities in Cairo. The students responded to three questionnaires that assess employability attributes, employability gap, CSE and university branding. The results indicated that there is a significant negative relation between perceived employability attributes and perceived employability gap. Moreover, core self-evaluation seems to be a moderating variable in such a relationship; while university branding is not. The study contributed to the literature by introducing a new conceptual model of employability and some important policy making recommendations and implications for higher education to bridge the employability gap on the local as well as the international level.

**Keywords:** employability attributes, employability gap, higher education students' perception, core self-evaluation, university branding

## 1. Introduction

In recent years, there has been a great deal of interest in studying the relationship between employability and Higher Education (HE) all over the world. This is a very important and crucial field of study because of the high unemployment rate caused by the global economic recession (Onyishi et al., 2015). And also because of the mass expansion of the number of universities - in many countries in the Middle East - resulted in producing a large number of educated youth (Ghafar, 2016); sometimes referred to as the 'student explosion phenomenon' Kenawy (2006). Meanwhile the labor market cannot absorb this large number of jobseekers; as neither the public nor the private sector can create enough jobs (Ghafar, 2016; Kenawy, 2006). The International Labor Organization (ILO) expects this unemployment trend to increase even further (Onyishi, et al., 2015).

The HE problems are not only quantity wise but also quality wise. The quality of HE is questionable as it is doubtful if its outcomes are pertinent for the Egyptian workforce needs (Kenawy, 2006). Thus, it is believed that the 'skill gap' is one of the major reasons behind university graduates' unemployment. Paradoxically, although there is a high unemployment rate in many countries - especially among university graduates - there are many unfilled job vacancies that is due to 'employability gap'. The skill gap is a global unsolved problem since the 90s; where the mismatch between education and employability attributes has been of concern without recognized success (Daoud, 2012). Since a university degree - solely - is neither enough nor attractive anymore and since the provided qualifications become obsolete quicker than ever, it becomes evident that acquiring employability attributes has become imperative to adapt to the dynamic environment we are living in (Kalfa & Taksa, 2015). Therefore, universities are focusing on improving 'student employability' in many parts of the world like Australia, the USA, the UK, Canada (Bridgstock, 2009; Kalfa & Taksa, 2015), the Middle East and North Africa region (Abou-Setta, 2014; Ghafar, 2016).

Egypt has been facing many challenges recently in almost every domain; political, economic and social. Nevertheless, the most crucial challenge is education in general and higher education in particular (Daoud, 2012). The relationship between education and economic and social development has been acknowledged throughout the literature (Abou-Setta, 2014). There have been many calls for the importance of a strategic education reform in Egypt; especially after the 2011 revolution where ‘change’ has been a magnified notion that is needed in every aspect of life (Daoud, 2012; Ghafar, 2016).

There is a big debate in the literature as although most universities nowadays are focusing on and providing their students with the necessary employability attributes, the research results reveal that graduates are still not equipped with the needed modern workplace competencies; i.e. employability gap (Harvey 2005; Tymon, 2013; Yorke, 2004). University undergraduates have many challenges and inquiries in facing their future careers; as whether they will be ‘fit’ for local and global job markets (Tomlinson 2008). The emphasis on the importance of graduating university students stems from the fact that this is the phase when students start to construct their identities and identify their careers prospects (Al-Harathi, 2011). Yet, there is little recent empirical research to examine how university students recognize and manage their employability in today’s HE and workforce dynamics (Tomlinson 2008); where this little research is mainly conducted in the western world (Al-Harathi, 2011). The concept of employability is a bit complex as it concerns many stakeholders of the educational process; the students, academic staff, employers, policy makers and HE, the private sector and the government. Although examining students’ perception is of great importance as they play a dual role – the beneficiaries of the educational process as well as the potential employees – their perception tends to be overlooked in Egypt (Abou-Setta, 2014). Some referred to students’ view as ‘the missing perspective’ and criticized its absence as students are the recipients of employability attributes development; hence their perception is important (Tymon, 2013).

Therefore, the focus of the present study is Egyptian university graduating students’ perceived employability. It is significant to explore whether HE students understand these challenges, are aware of employability attributes, have confidence in their own competencies and in their universities, and how they perceive their future employability. Hence, in the present study, the students’ perspective (mainly graduating students of the school of business) is investigated and it is hypothesized that students’ core self-evaluation and university branding moderate the relationship between graduates’ perceived employability attributes and employability gap in Egypt.

## 2. Literature Review

### 2.1 Perceived Employability Attributes – Definitions & Models

There has been a lot of debate throughout the literature about the most comprehensive and effective definition and model of ‘employability’ due its complex and multifaceted nature (Monteiro, 2016; Pinto & Ramalheira, 2017; Pool & Sewell 2007; Rothwell et al., 2008). It is noticed though that most of the definitions take into consideration the sustainability and mobility aspects of employability and that the most widely used definition is that of Hillage and Pollard (1998) who suggested that “employability is about having the capability to gain initial employment, maintain employment and obtain new employment if required (p. 1)”. Moreover, such employability depends on how much competencies are being gained; the ability to present them to the employer; and how these competencies can be reflected on the job (Pinto & Ramalheira, 2017).

Recently, researchers began to draw our attention to the subjectivity and individuality of the concept and that it is a matter of perception. Self-perceived employability refers to the person’s perceived capability to acquire a job whenever needed. More specifically, perceived employability incorporates appraising one’s employability attributes against the current labor market and economic status-quo (Onyishi et al., 2015). Thus, it reflects one’s perception regarding his/her capability to get and maintain the job one already has or one desires (Onyishi et al., 2015; Pinto & Ramalheira, 2017). Brown et al. (2003) argued that employability goes beyond satisfying a specific job requirements; as it reflects how one stands compared to other job seekers in the labor market. Moreover, they claimed that as the competitors number increases, the distinctive value of graduates qualifications as a screening device decreases; suggesting that employability attributes are becoming crucially important.

Bridgstock (2009) believes that since we are living in a dynamic ‘information- and knowledge-intensive economy’, people need to have immediate and sustained employability. Therefore, it is not enough for university graduates to acquire knowledge and skills that are related to their discipline or profession; they should be further equipped with employability attributes that are transferable to different work-related settings (Bridgstock, 2009). Employability attributes are crucially important to university graduates. These attributes have been discussed throughout the literature from different dimensions. It has been agreed though that it goes beyond the person’s knowledge and technical skills; as it includes different skills such as social, intellectual, administrative and

self-management competencies (Jackson, 2013). They are sometimes called ‘generic’, ‘underpinning’ (Bridgstock, 2009), ‘core’, ‘key’, ‘enabling’, ‘transferable’, ‘professional’ (Bezuidenhout, 2011), ‘soft’ (Daoud, 2012), or ‘non-technical’ (Jackson, 2013) skills. Even the term ‘skills’ is sometimes used interchangeably with the terms ‘competencies’ and ‘attributes’ to add more confusion to the employability concept (Bezuidenhout, 2011). For the sake of the present study ‘employability attributes’ will be mostly used.

Including all the above aspects, Bezuidenhout (2011) defined employability as “a psycho-social construct representing a combination of attributes (dispositions, values, attitudes and skills) that promote proactive adaptability in changing environments and enhance an individual’s suitability for employment and the likelihood of obtaining career success (p. 20)”.

According to previous definitions, scholars have been trying to come up with a comprehensive adaptive higher education employability model since the twentieth century. In 1977, Law and Watts (as cited in Watts, 2006) introduced the DOTS model which provides practical solutions for graduates’ career development. The DOTS model consists of: planned experiences designed to facilitate the development of: **D**ecision learning – decision making skills **O**pportunity awareness – knowing what work opportunities exist and what their requirements are **T**ransition learning – including job searching and self presenting skills **S**elf awareness – in terms of interests, abilities, values, etc. (pp. 9-10).

There has been a debate about the value of this model. Some have supported the model as it helps people in simplifying the complexity of their career management. Opponents like McCash (2006), however, criticized this simplicity as it refers career success or failure to individuals’ responsibility; and it underestimates the role of other important factors such as social and political contexts.

In the late 20th century, Bennett et al. (1999) proposed a more of a progressive employability model to higher education that consists of five elements: disciplinary content knowledge; disciplinary skills; workplace awareness; workplace experience; and generic skills. It is criticized that although this model took into consideration many important aspects that are needed by graduates to achieve optimum level of employability, it is still lacking some vital factors (Pool & Sewell, 2007). Later on, Yorke and Knight (2004) developed the USEM model as their objective was embedding employability attributes into university curriculum; which is considered one of the most famous and appreciated models in the employability field. Their model consists of four inter-related employability components: understanding, skills, efficacy beliefs, and metacognition. The academics viewed the USEM model positively as it has been a very good research base for many scholars. Nevertheless, the model is criticized for its difficulty to understand employability by non-academics; especially students (Pool & Sewell, 2007).

Fugate et al. (2004) had a significant contribution to the development of graduates’ employability model when they viewed employability as a “... psycho-social construct that embodies individual characteristics that foster adaptive cognition, behavior, and affect, and enhance the individual-work interface (p. 15)”. Hence individual employability goes beyond knowledge and skills to consider individual characteristics and attributes that attract employers. The main advantage of their model is that it is considered beneficial and applicable to university graduates since it considers necessary career meta-competencies and market interactional factors; such as ‘adaptability’ which is crucially needed in today’s uncertain changing work environment (Bezuidenhout, 2011).

Pool and Swell (2007) tried to take into consideration all the literature criticism of earlier models and hence came up with the “CareerEDGE” employability model. They claimed that this model has the benefit of expressing the employability concept in a simplified practical way that can be easily understood by both students and practitioners. The model consists of five essential components: (i) degree subject knowledge, understanding and skills, (ii) generic skills, (iii) emotional intelligence, (iv) career development, and (v) work and life experience. They argue that these five components will help students to reflect on and evaluate these experiences, and help students to develop their employability attributes through increasing their self-confidence, self-efficacy and self-esteem (Pool & Sewell, 2007). Bezuidenhout (2011) praised Pool and Sewell (2007) employability model as it stressed on ‘career development learning’ which is of great importance especially to university graduates who need to be aware of job career opportunities and to be able to get them through their network and marketability skills. They also focused on emotional intelligence (or emotional literacy) as it is essential especially for graduates who need to be able to manage their own as well as others’ emotions which will help them to effectively handle stress (Pool & Sewell, 2007). Moreover, it is necessary to become a reflective practitioner who can convert theories into practical applications in the workplace (Bezuidenhout, 2011; Bezuidenhout & Coetzee, 2010).

The employability attributes framework of Bezuidenhout and Coetzee (2010) is relevant to the present study (see

Figure 1). The model focuses on university graduate employability and the characteristics and competences that make them employable in today's contemporary work environment. Bezuidenhout and Coetzee (2010) developed a scale that measures the following eight core employability attributes:



FIGURE1. Conceptual overview of the skills and attributes that underline people's employability.

Figure 1. Conceptual overview of the skills and attributes that underline people's employability

Source: Potgieter & Coetzee (2013)

**1) Career Self-Management** is a person's ability to proactively do the following: Understand and keep up with the employment market changing needs by collecting career relevant information; understand and manage one's and other's emotions; be aware of and believe in one's competencies; continuously engage in learning and self-development; and plan career goals, solve problems and take career decisions accordingly (Bezuidenhout, 2011).

**2) Cultural Competence** refers to a person's effectiveness in understanding, respecting, accepting and dealing with other people from diversified cultures. This person can communicate, work and maintain cross-cultural relationship successfully (Bezuidenhout, 2011).

**3) Self-efficacy** is having confidence in one's capabilities in performing well independently, achieving goals, making decisions, overcoming challenges and solving problems (Bezuidenhout, 2011).

**4) Career resilience** is defined by Schreuder and Coetzee as "the ability to adapt to changing circumstances by welcoming job and organizational changes, looking forward to working with new and different people, having self-confidence, and being willing to take risks" (as cited in Bezuidenhout, 2011, p. 97).

**5) Sociability** refers to the ability to proactively connect with people, build relationships, and have career networks. It opens the door for job opportunities (which is especially needed by university graduates) and career advancement. (Bezuidenhout, 2011).

**6) Entrepreneurial orientation** "refers to a preference for innovation and creativity, a propensity to take risks, a need for achievement, tolerance for ambiguity, and a preference for autonomy in exploiting opportunities that exist in the career environment (p. 94)". It includes people who are proactive, self-motivated and self-confident (Bezuidenhout, 2011).

**7) Proactivity** is "taking initiative in improving current circumstances or creating new ones; it involves challenging the status quo rather than passively adapting to present conditions" (Crant, 2000, p. 436). This behavior will enable people to seek and get job opportunities, enhance their knowledge and skills to maintain career progress, and withstand career challenges and ambiguity (Bezuidenhout, 2011).

**8) Emotional literacy** is the adaptive use of emotions; in the sense that one would believe in his/her ability to identify, understand and manage one's own as well as others' emotions (Bezuidenhout, 2011; Bezuidenhout & Coetzee, 2010).

## 2.2 Employability Gap

The 2011 international labor organization (ILO) report (as cited in Daoud, 2012) showed that employability gap is one of the main challenges in the Arab world. For instance, the Egyptian different educational institutions (schools, universities, and vocational education and training institutes) produce graduates who are lacking the competitive labor market requirements. Although many organizations complain of not finding competent

candidates to fill some vacant jobs, the majority of university graduates cannot find jobs and may wait for years to be employed (Ghafar, 2016). There could be many reasons behind this problem like population growth especially youth population, the downsizing and privatization of the public sector, and many other issues (Daoud, 2012; Ghafar, 2016). But the focus of the present research is on the employability gap.

In the literature, employability gap is used interchangeably with skill gap which refers to “the disparity between industry needs and higher education provision” (Jackson, 2013, p. 4). Daoud (2012) argued that despite the large number of labor that we have, there is deficiency in the knowledge and technical proficiency among the majority of the Egyptian labor force that are needed by the domestic and global market. Moreover, they claimed that the lack of non-technical skills – such as communication, IT and other soft skills - does not help university graduates to meet the 21<sup>st</sup> century jobs requirements. Kenawy (2006) recognized that some Egyptian university curricula are still of a traditional nature resulting in increasing the gap between graduates’ acquired attributes and those needed by today’s contemporary workforce. Al-Harthi (2011) added that Egyptian students are aware of this employability gap problem. Scholars like Tomlinson (2008) and Tymon (2013) second this opinion as they also believe that today’s youth are aware of the importance of employability attributes, that a university degree is not enough anymore, and that they need to develop more competencies to attain career success.

Accordingly, the current study suggests ‘employability gap’ to be defined as the difference between graduating students’ perceived acquired employability attributes through HE and the perceived needed attributes by the labor market. It is believed that there are two types of employability gaps. The first gap; which most studies refer to, is when the industry requirements exceed the graduate’s perception of the acquired employability attributes. There is a second employability gap though that is called ‘luxury unemployment’ which is relatively rarely referred to in the literature. According to Ghafar (2016), luxury unemployment’ occurs when students’ perceived possessed attributes exceed the industrial requirements. He noticed that these graduates decide not to work but in their fields of specialization according to their university degree; a case which aggravates the employability problem. Luxury unemployment phenomenon has even added to the problem in Egypt lately where the main unemployed category is the qualified university graduates. According to the conducted ILO survey in 2014 in Egypt, the rate of unemployed youth who refused to work in jobs that do not match their level of qualification is 30%. Moreover, the ILO survey reflects that 48% of working youth are in professions that do not match their level of education (Ghafar, 2016).

Employability gap leads to high graduate unemployment rate, tough competition among graduates, and increased ambiguity of graduates’ expectations of HE (Tymon, 2013). Both graduates and employers recognize that a university degree; which used to be viewed as a plus or a distinctive factor, is now viewed just as a basic precondition for a job (Brown et al., 2003; Tomlinson, 2008); highlighting the importance of employability attributes. Therefore, the following hypothesis can be formulated:

**H1: There is a significant relationship between graduates’ perceived employability attributes and perceived employability gap.**

### *2.3 The Moderating Effects of Core Self-Evaluation (CSE) and University Branding*

Taking into consideration the two different types of employability gaps and the reviewed literature, the relationship between graduates’ perceived employability attributes and employability gap is neither simple nor direct. Luxury unemployment phenomenon implies that there are some factors moderating this relationship. More specifically, the current study examines the moderating effect of core self-evaluation and university branding on such a complex relationship. Core self-evaluation (CSE) is defined by Judge et al as the “basic, fundamental appraisal of one’s worthiness, effectiveness, and capability as a person” (Judge et al., 2003, p. 304). Whereas the following four traits used to be studied in isolation, they are currently representing a one unique construct of CSE (Judge and Bono, 2001; Judge et al., 2003). The four traits are: **Self-esteem**: Ones’ overall perception of his/her worth and importance; **Generalized self-efficacy**: One’s confidence in his/her ability to cope and achieve successful performance; **Locus of control**: How much one believes s/he is in control of life and different circumstances; and **Emotional stability** (low neuroticism): How much one can be calm and in control when facing stress (Judge & Bono, 2001). Since Judge (2009) suggested that positive self-concept is related to the individual’s confidence in his/her capabilities and competences to perform, cope, persevere, and succeed; Onyishi et al. (2015) deduced that CSE would positively influence one’s perception of his/her employability – and thus will lead to better job search behavior that is crucially needed to face the challenges of today’s limited employment opportunities.

On the contrary, from the learned helplessness perspective (Judge & Bono, 2001), people with low CSE may view unemployment as insuperable situation and thus feel helpless towards changing their present situation (Onyishi et al., 2015). It has been proved that CSE components; self-efficacy, self-esteem, locus of control, and emotional

stability are negatively associated with learned helplessness (Judge and Bono, 2001). Therefore, the lower the CSE, the lower the perceived employability. Thus, people whose self-perception about employability is high, would perceive employability as reachable and would consequently manage proactively their careers based on their perceived employability attributes (Onyishi et al., 2015). Hence, the second hypothesis can be developed as follows:

**H2: CSE moderates the relationship between graduates' perceived employability attributes and perceived employability gap.**

Regarding university branding, there is a crucial debate about who the customer of HE is. As students could be either regarded as university products (where employers are viewed as HE customers) or as customers (where university study programs and courses are the products) (Conway et al., 1994). In the late 90s, HE marketing was denoted as a service marketing business and thus stressing on the importance of the relationships with customers since education is 'people based' (Hemsley-Brown & Oplatka, 2006). As a result, many universities have become keen to promote their image and brand themselves more aggressively not only to maintain local market share but also to sustain the quality of their students' intakes (Ali-Choudhury et al., 2009) and to compete internationally (Duarte et al., 2010). A university brand could be described as "a manifestation of the institution's features that distinguish it from others, reflect its capacity to satisfy students' needs, engender trust in its ability to deliver a certain type and level of higher education, and help potential recruits to make wise enrolment decisions" (Bennett & Ali-Choudhury, 2009, pp. 85-86). A strong university brand will be reflected on the perceived excellence of the university education, on the students' choice of university enrollment and on the belief that attendance will add value (Palacio et al., 2002).

Based on the previous work of Aaker in 1991 and Yoo and Donthu in 1997 and 2002; Washburn & Plank (2002) developed a consumer-based brand equity scale that is multidimensional; and which is being used in the current study. They focused on four theoretically defined concepts plus the overall brand equity as a separate item. First, the definition of brand equity - according to Aker is "... a set of planned assets and liabilities linked to a brand, its name and symbol, that add to or subtract from the value provided by a product or service to a firm and/or to that firm's customers" (as cited in Washburn & Plank, 2002; p. 47). Second the four dimensions can be defined as follows: According to Zeithaml **Perceived quality** is "the consumer's judgment about a product's overall excellence or superiority" (as cited in Yoo & Donthu, 2001; p. 3). The other three dimensions are defined by Aker (as cited in Yoo & Donthu, 2001; p. 3); where **Brand awareness** is defined as a brand recognition as it is "the ability for a buyer to recognize or recall that a brand is a member of a certain product category". **Brand loyalty** is simply "the attachment that a customer has to a brand"; where the customer tends to buy the brand as a first choice. And **Brand associations** is "anything linked in memory to a brand".

It is assumed that university graduates who highly value the branding of their university may consider themselves qualified and well prepared to join the labor market and to excel in their careers. While university graduates who undervalue the branding of their university, may view themselves to be less qualified and unprepared to meet the market expectations. Accordingly, the third hypothesis can be derived as follows:

**H3: University branding moderates the relationship between graduates' perceived employability attributes and perceived employability gap.**

Based on the previous literature and suggested hypotheses, the following conceptual model (figure 2) can be developed to portrait the assumed relationship:

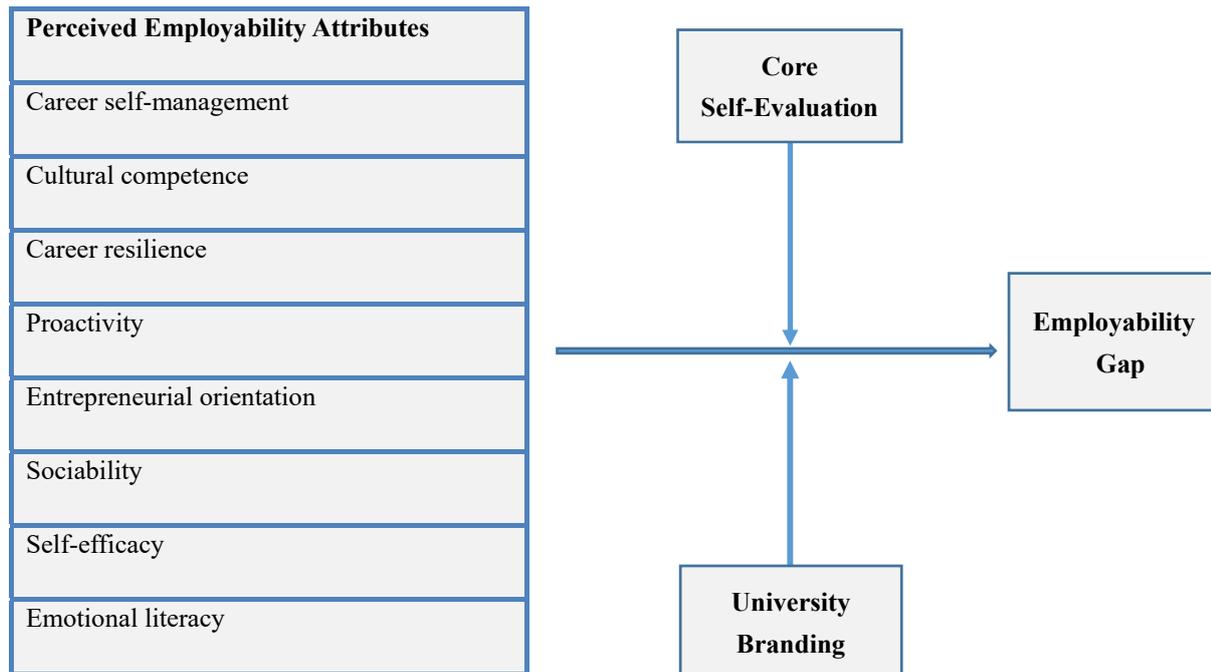


Figure 2. Conceptual model of current study

### 3. Data and Methodology

#### 3.1 Sample

According to 2014-2015 survey of the Ministry of Higher Education (2015), the total number of Business students in Egypt is 300,000; where 231,000 belong to public universities and 69,000 belong to private universities and higher education institutes. The target population in this study was senior graduating business students in public and private universities in Cairo-Egypt. A quota sampling procedure was used to recruit six hundred students from six universities (3 public and 3 private). Only five hundred and fifty eight of them (290 from public universities and 268 from private universities) responded positively with a response rate of (93%). Their ages ranged between 21 and 24 years with mean of 21.64 year and standard deviation of 1.92 years. Moreover, females represent 56% of the total sample. These characteristics indicate a reasonable mix of demographic characteristics represented in the collected data.

#### 3.2 Measures

Four-part questionnaire was used to assess the study variables. *Employability attributes* were measured using 56-item scale developed by Bezuidenhout & Coetzee (2010) to assess eight employability attributes, namely, career self-management (10 items), cultural competence (5 items), self-efficacy (6 items), career resilience (6 items), sociability (7 items), entrepreneurial orientation (7 items), proactivity (7 items) and emotional literacy (7 items). Respondents were asked to rate how they perceive their possession of each attribute on a ten-point scale. Answers ranged from 1 (I do not have it) to 10 (I possess this skill completely). *Employability gap* was measured using the same previous scale items with different instructions. Respondents were asked to rate how they think their future careers need these attributes on a ten-point scale. Answers ranged from 1 (It is not required) to 10 (It is absolutely necessary). *Employability gap* is calculated then as the sum of differences between the perceived necessity of each attribute for business careers and the perceived possession of it from university education.

*Core self-evaluation* was measured using the 12-item scale adopted from Judge et al., (2003) to measure the CSE components mainly: *self-esteem, generalized self-efficacy, neuroticism, and locus of control*. The scale items were measured on a five-point Likert scale. Answers ranged from 1 (strongly disagree) to 5 (strongly agree). Finally, *university branding* was measured using 19-item scale adopted from Washburn and Plank (2002) to assess four main dimensions of brand equity; namely, *perceived quality* (6 items), *university brand loyalty* (3 items), *university brand awareness* (3 items), and *brand association* (3 items) along with *the overall brand*

equity (4 items). The scale items were measured on a five-point Likert scale. Answers ranged from 1 (*strongly disagree*) to 5 (*strongly agree*). Demographic variables including age, gender were also assessed. Descriptive statistics, and reliability coefficient of these measures are shown in table 1.

Table 1. Descriptive statistics and reliability coefficients of study variables

Variable	Mean	SD	Cronbach's Alpha
Employability Skills			
- Career self-management	85.52	12.33	.871
- Cultural competence	42.12	5.31	.754
- Self-efficacy	53.45	5.62	.771
- Career resilience	54.39	4.58	.822
- Sociability	63.12	5.12	.868
- Entrepreneurial orientation	62.88	4.67	.845
- Proactivity	62.45	5.32	.834
- Emotional literacy	61.76	6.11	.788
Employability Gaps			
- Career self-management	25.13	7.36	.812
- Cultural competence	22.36	6.59	.854
- Self-efficacy	15.74	8.12	.776
- Career resilience	26.38	7.54	.834
- Sociability	24.71	6.82	.841
- Entrepreneurial orientation	17.48	8.33	.835
- Proactivity	23.59	6.71	.862
- Emotional literacy	18.94	8.22	.819
University Branding			
- Perceived Quality	25.12	3.24	.875
- University Brand Loyalty	12.33	2.54	.836
- University Brand Awareness	11.61	2.63	.819
- University Brand Association	11.45	2.17	.822
- Overall University Brand Equity	14.28	2.28	.843
Core Self-Evaluations	52.63	6.54	.882

Furthermore, to test the validity of the used measures, two procedures were used. First, the four-part questionnaire was revised by a panel of 10 experts who assessed the content of each part and evaluated the appropriateness of this content to the Egyptian culture. The comments of all experts indicated that the used questionnaires are valid and culturally appropriate. Second, a confirmatory factor analysis, using AMOS 20, was conducted to confirm the factor structure of the used scales in the target population. All questionnaire parts have significant factor loadings on their latent variables. The fit indices for these factor structures are shown in table 2.

Table 2. Fit indices for the factor structures of the used instruments

Variable	CMIN/DF	GFI	AGFI	NFI	CFI	RMSEA
Career self-management	2.172	.962	.958	.954	.955	.062
Cultural competence	2.154	.955	.951	.952	.951	.063
Self-efficacy	1.965	.984	.971	.981	.968	.054
Career resilience	2.542	.959	.948	.956	.944	.066
Sociability	2.361	.981	.976	.978	.973	.057
Entrepreneurial orientation	2.257	.963	.959	.962	.961	.063
Proactivity	2.315	.982	.968	.975	.978	.059
Emotional literacy	2.145	.956	.954	.954	.947	.064
Brand Equity	1.895	.987	.975	.983	.973	.046
Core Self-Evaluation	1.943	.986	.977	.984	.971	.049

As can be shown in the previous table, all fit indices were above the recommended level of acceptance. Accordingly, it can be concluded that the factor structures of the used instruments are confirmed in the target population.

### 3.3 Procedure

Participants were approached in classes and were asked to complete the questionnaire. Before completing the questionnaire, all participants were assured that their participation was voluntary and anonymity was guaranteed. Latin square procedure was used to control the order of presenting the three-part questionnaire and to minimize the common method bias.

## 4. Results and Discussion

### 4.1 Data Analysis and Results

To test the first hypothesis assuming that there is a significant relationship between university students' perceived employability attributes and perceived employability gap, Pearson correlation coefficients were calculated as shown in table (3).

Table 3. Pearson correlation coefficients among study variables

Variable	1	2	3
1. Employability Skills			
2. Employability Gap	-.638**		
3. Brand Equity	.422**	-.337**	
4. Core Self-Evaluation	.524**	-.436**	.481**

\*\* Coefficient is significant at .01 level.

It can be shown from the previous results that there is a significant negative relationship between perceived employability attributes and perceived employability gap. Thus the first hypothesis is accepted.

To test the second hypothesis assuming that core self-evaluation moderates the relationship between perceived employability attributes and perceived employability gap, multiple regression analysis with the interaction effect between the standardized scores of employability attributes and CSE was conducted as shown in table (4).

Table 4. Multiple regression to test the moderation effect of core self-evaluation

Variable	b	S.E	T	R <sup>2</sup>	F
Z –Employability Skills (ES)	1.89	.513	3.68**	.425	48.53**
Z – Core Self-Evaluations (CSE)	2.28	.447	5.10**		
ES * CSE	1.53	.372	4.11**		

\*\* Coefficient is significant at .01 level.

The multiple regression analysis indicates that there is a significant interaction between employability attributes and core self-evaluation that affect employability gap. This result suggests that CSE moderates the relationship between perceived employability attributes and perceived employability gap. Therefore, the second hypothesis is also accepted.

To test the third hypothesis that assumes a moderating effect of university branding on the relationship between perceived employability attributes and perceived employability gap, the same statistical techniques were used and the results are shown in table 5.

Table 5. Multiple regression to test the moderation effect of university branding

Variable	b	S.E	T	R <sup>2</sup>	F
Z –Employability Skills (ES)	1.89	.513	3.68**	.251	27.53**
Z – University Branding (UB)	1.18	.425	2.77**		
ES * UB	.615	.581	1.05		

\*\* Coefficient is significant at .01 level.

The multiple regression analysis indicates that there is no significant interaction between employability attributes and university branding. This result suggests that university branding does not moderate the relationship between perceived employability attributes and perceived employability gap. Therefore, the third hypothesis is rejected.

#### 4.2 Discussion

It is essential to investigate graduating students' perception about their gained competencies from university programs to further understand the employability concept. Most of the conducted studies in Egypt, agreed that education systems focus more on quantity expansion rather than quality development (Al-Harhi, 2011; Kenawy, 2006). Moreover, it seems that HE is more concerned with the scientific knowledge development than the practical applicability and transferability of employability attributes to the real job market (Monteiro, et al., 2016). And thus, most of the studies that have been done to investigate the relationship between HE and graduates' employability – nationally as well as globally (Cavanagh et al., 2015; Daoud, 2012; Jackson, 2013; Kenawy 2006) – sustained our first hypothesis. According to our results, a significant negative relationship exists between perceived employability attributes and employability gap. This means that the higher the perceived employability attributes, the lower the perceived employability gap.

This result is supported by a study exploring Australian business school graduating students' perception of their work readiness and how their university promote graduate capabilities. They found that there is a gap between university curricula and employability attributes development (Cavanagh et al., 2015). The current study descriptive statistics indicate that the most problematic areas of employability attributes are in proactivity, entrepreneurial orientation and cultural competencies. Likewise are the findings of Cavanagh et al. (2015) where the most problematic areas in employability attributes were in the higher order skills of research, problem solving, teamwork collaboration and creativity. More similar results are found in Daoud's (2012) study of Ain Shams engineering students in Egypt. Employers criticize graduates for lacking problem solving and higher thinking skills - such as creative and analytical skills - during their university study. Due to the employers' perception of employability skills deficiency, newly graduated engineers are deprived from recruitment in certain positions. It becomes evident that graduates cannot be recruited in suitable jobs because they are not meeting the market needs (Daoud, 2012). Moreover, the results of many studies conducted in Egypt by experts in the education field caused Holmes (2008) to relate high unemployment rate to the poor quality of HE in Egypt; i.e. employability gap. It is argued that Egyptian universities do not prepare their graduates for career opportunities; as they lack important employability attributes such as networking, job hunting, analytical, leadership, problem solving skills (Holmes, 2008); planning, management, negotiation, communication and language skills (Daoud, 2012) among other career-related skills.

Since students recognize the link between the purpose of university education and employability, they believe that more 'job-related skills' and more inclusion of job opportunities should be embedded in their curricula. Hence, they perceive employability as an indicator of higher education quality as recommended by Storen and Aamodt (2010). When interviewing undergraduates from the faculties of Arts, Mass Communication and Economics & Political Science; to examine their perception of the relationship between university education and employability in Egypt, they argued that although the objective of HE is to prepare them for the labor market where they would be knowledgeable enough and able to manage their careers professionally; they doubted the functionality of HE and perceived it as being under-achieved (Abou-Setta, 2014). Al-Harhi (2011) conducted a very similar research on Egypt and Oman investigating business and engineering students' perception of the relationship between their education and their employability. He confirmed that students perceive attending universities as irrelevant; in terms of developing their employability attributes, as there is a gap between the competencies they learn and those required by the job market. These findings reflect the Egyptian students desire to change the curricula and add more employability attributes to better prepare them for the labor market. The findings match those of The Organization for Economic Co-operation and Development (OECD) and World Bank 2010 report concerning the questionable quality of higher education in Egypt and the resulting employability gap (Al-Harhi, 2011).

Interestingly is the fact that employability gap; especially for HE students, is a worldwide problem. Therefore, more supporting results are from international studies like those of Rothwell, Herbert, and Rothwell (2008) who investigated the self-perception and expectations of bachelor degree students regarding employability in the UK. British students perceived university attendance and engagement as having little effect on their self-perceived future employability. In accordance with these results came the findings of Tomlinson (2008) concerning final-year UK students who cannot see the link between their degree qualifications and employment opportunity. And hence they believe that they need to be more proactive in working on themselves to enhance their employability.

Concerning the core self-evaluation variable, the results support the moderation effect on the relationship between perceived employability attributes and employability gap. This means that the higher the perceived CSE, the higher the perceived employability attributes; and hence the lower the perceived employability gap. This is supported by other researches that introduced other factors affecting the relationship between perceived employability attributes and employability gap. For example, Alves (2005) argued that the relation among university education, intending learning outcomes and graduates employability is not a direct simple one as there are other variables playing roles in such a complicated relationship. These moderating variables affect graduates employability and their transition to the labor market. Supporters like Pool and Swell (2007) developed a practical model of graduate employability which argues that there is no guaranty that effective development and transference of employability attributes would lead to graduates' employability. They claimed that there are other influencing factors that may impede employability; like how much graduates are aware of the labor market (Bennett, et al., 1999), personal and family circumstances, graduates' capability to market their competitive strengths (Hillage & Pollard, 1998), and their willingness to change occupations (Pool & Swell, 2007).

Studies relating CSE to job satisfaction, job performance and career success (Judge, 2009) or job search behavior can be found in the literature (Onyishi et al., 2015). But there is a shortage of research investigating the relationship between core self-evaluation and perceived employability; where one or two dimensions of CSE (like self-esteem or self-efficacy) might be studied - but not CSE as a whole. Judge and Kammeyer-Mueller (2011) found that people with high CSE attain success since they know how to fully benefit from available resources. In 1998 Judge et al., interpret it as high-CSE individuals have high confidence in themselves and in their employability attributes; so this will motivate them to confidently exert maximum effort toward success and high achievement (Onyishi et al., 2015). Onyishi et al (2015) second this opinion as they proved in their study that CSE is significantly and positively associated with perceived employability; suggesting that individuals who have positive CSE will perceive themselves as more employable than those with less positive CSE. Their interpretation is that people with high CSE believe in themselves and in their capabilities so they prepare for job search better than others; and thus their probability in finding and maintaining jobs is higher.

More specifically, Judge and Kammeyer-Mueller (2011), believed that since people with high CSE will consequently have high self-efficacy, self-esteem, internal locus of control, and emotional stability, their perceived employability will consequently be higher. They added that high CSE individuals will be more successful in handling difficult circumstances such as job seeking. Other scholars interpret it as people perception of their high employability level will significantly affect their subjective well-being; and their ability towards job searching, and adaptation to employment dynamic environment (De Cuyper et al., 2008; Rothwell et al., 2008); and that adaptability is one of the major self-perceived employability attributes (McArdle et al., 2007). Therefore, since higher CSE reflects higher positive self-concepts (Judge and Hurst, 2007), people with higher CSE would view themselves as more employable even in today's limited job opportunities; which will eventually narrow the employability gap. Due to literature shortage, there is a need for further investigation regarding the relationship between CSE and employability.

As for the moderating effect of university branding on the relationship between graduates' perceived employability attributes and perceived employability gap, the results did not support the moderating effect. Apart from the studies that have been made about reputation and image, university branding is considered a relatively new concept in the literature (Duarte et al., 2010; Hemsley-Brown & Oplatka, 2006; Tas & Ergin, 2012). However, due to globalization, university branding and its relation to employability has become an important area of study as students are seeking universities outside their home countries. Tas and Ergin (2012) found that Turkish students, for instance, perceive 'post-graduation job and career prospects' as an important criterion when choosing a bachelor degree program among US universities. Turkish students link high-ranked international reputation universities to quality education, well paid jobs and competitive professions. Therefore, they advise universities to take employability aspect into consideration when developing their branding strategies. Surveying 1024 university students, Duarte et al. (2010) found that 'employment opportunities' is a major predictor of image formation; which reflects the importance of finding a job after graduation from students' perception and how it is related to university branding. These findings, however, contradict with the present study results which failed to relate university branding to employability when studying Egyptian university students' perception.

Studies which got similar results to the present study justified its findings from different perspectives. In their investigation of students' perception of the university brand strength in relation to their future career, Rothwell, Herbert and Rothwell (2007) found that high-social class university students have high expectations of employability and employer brand. While low to middle-social class university students; who might be the first in their families to obtain higher education, might not be too ambitious to think of employability after graduation;

or at best, it might come as a second wish. Since our study was applied on private as well as public universities; where all social classes are represented, this interpretation might be very well applicable to our findings. Another possible interpretation is that in almost all cultures; and Egypt is no exception, unemployed university graduates would depend on family connections and networking in finding and sustaining a career; otherwise they might spend many years awaiting for professions that are relevant to their fields of study; yet these professions may never come (Ghafar, 2016). Thus university students would not relate university brand to employability since they recognize that a bachelor degree is not a differentiating factor as much as a family connection is.

An even better interpretation could be that of Al-Harthi (2011) research which was partially applied on Egyptian students. He found a disparity between students' high recognition of their university degree and their low confidence in its relevance to job seeking and employability. Students' perception reflected their low confidence in HE capability to equip them with the needed employability attributes and transferable skills. This lack of confidence could be due to the low 'perceived quality' of their study program - which is one of the brand equity aspects. Al-Harthi (2011) explained this inconsistency as students have two perceptions of HE instantaneously:

The first view focuses on the prestige represented in their confidence about higher education; it may be associated with the fact that these students attend prestigious universities and colleges. The second view is the functional view of university education, focusing on the knowledge and skills students gain in their study and may use in their future work. Students at this stage may not recognize the importance of their coursework, especially the theoretical courses they need for their careers, and may therefore devalue such study (p. 542).

Although the overseas market of HE is highly competitive, there is a shortage in studying university market positioning and university branding in general (Gray et al., 2003) and in relation to employability in particular. Moreover, by reviewing the literature, it has been recognized that most of the studies are mainly focusing on the impact of university branding on students' education decision rather than on students' perceived employability after graduation. Therefore, more research is encouraged. Moreover, the complex dynamic relations between employability attributes and employability gap need to be further investigated taking into consideration other important variables such as the type of study programs, social and economic factors, gender and others.

## 5. Conclusion and Policy Implications

The current study aimed at investigating the relationship between university graduating students' perceived employability attributes and perceived employability gap. And to further investigate the moderating effect of students' core self-evaluation and perceived university branding on such a relation. The results revealed that a significant negative relation was found between perceived employability attributes and perceived employability gap. Moreover, core self-evaluation appears to be a moderating variable in such a relationship; whereas, results indicate that university branding is not a moderating variable. These findings were discussed in light of previous literature and in light of the Egyptian culture specific context. Further investigation of such a complex multidimensional dynamic relation is recommended to explore other stakeholders' perceptions; such as the industry (employers and internships) and academic bodies.

The results of the current study have some important implications for policy making. First for educational policy makers, they raise the awareness of the importance of redesigning university curricula in a more contemporary prospective that matches students' needs and workplace requirements; hence narrowing the employability gap. Second for occupational policy makers (employers), the study findings draw the attention to the necessity of creating and maintaining a close relationship between academia (staff and students) and the industry (employers) in order to bridge the employability gap. Furthermore, it should be taken into consideration that the different aspects of development (economic, social and educational) depend on the strength of the relationship between academia on one hand and the industry on the other hand; therefore, closing the employability gap should be the responsibility of different entities and should be subject to a thorough societal discussion that include all relevant stakeholders.

Last but not least, it is recommended that this societal discussion be elevated to an international level – a more of a macro worldwide prospective. This is due to the following reasons: First, HE employability gap has been a global unsolved problem for a long time. Second, the fact that we are all living in one global world; where international/multinational corporations are everywhere. Third, HE has become an international service that is accessible to many students all over the world; as an example, we have American, British, German, French and Canadian universities in Egypt. Fourth, University graduates search for jobs overseas. Therefore, it is believed that it is crucially important to establish an international network where all expertise, knowledge, experiences, successful practices, creative ideas and solutions could be shared in order to: a) minimize the employability gap; b) prepare higher education graduates for the international labor force; and c) enable graduates to get employed

in the international job market.

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