
The Perceived Work-Readiness of Supply Chain University Graduates at a Large FMCG company

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Abstract:

With the increasing youth unemployment rate, the gap between supply and demand for graduates continues to widen. Therefore, higher institutions of learning need to align themselves more closely with the needs of businesses and equip students with the necessary knowledge and skills that will enable them to make effective contributions in the workplace. This study provides insight into the work readiness of University of KwaZulu-Natal supply chain management graduates who were appointed at a leading fast moving goods and consumer company in Durban. This is a descriptive and explanatory study, and data was collected through semi-structured interviews with 16 participants. The findings revealed that graduates are work ready but require additional support such as training and development from the employer. The findings of the study will contribute to the body of knowledge on graduates' employability by providing insight into the work readiness of University of KwaZulu-Natal supply chain management graduates. The findings and recommendations of this study are also of value to those in curriculum development.

Key phrases

Employers; educational institutions; graduates; teaching and learning and supply chain management

1. INTRODUCTION

The changing global economy requires graduates who are equipped with the necessary skills and experience so that they can add value to a business. In turn, these necessary skills and experience increase graduates' chances in the job market (Maier-Lytle, Mcguire & Ehlen 2010:44). It is for this reason that higher institutions of learning need to align themselves more closely with what businesses require of employees. Because the unemployment rate has led to a limited demand for graduates, key aspects that businesses look for in applicants are their competencies and employability.

Employability is part of a lifelong learning paradigm which emphasises the continuous learning process individuals undergo throughout their lives in formal or informal contexts (Silva, Lourtie & Aires 2013:106). Competencies are underlying characteristics of an individual that contribute to job performance and consequently to organisational success (Iqbal & Zenchenkov 2014:91). It is believed that the job preparedness of human resources is a reflection of how well educational and training institutions match their programmes with government and businesses. This understanding is supported by various studies that explore enhancing the employability of graduates (Nagarajan & Edwards 2015:26; Poropat 2011:503).

South African graduates' employability remains an on-going point of discussion amongst scholars, government and businesses and is still a developmental challenge facing the country. The national unemployment rate is presently at 26.7% (Statistics South Africa 2016:iv) while the youth unemployment rate is 36.9% (Statistics South Africa 2015:3). Addressing the increasing unemployment rate depends not only on government's ability to create jobs but also on the higher education (HE) sector to devise educational models aimed at enhancing the employability of graduates. Such models need to be deeply rooted in practical and lifelong learning to ensure that competency challenges are addressed at a basic level. Addressing these competency challenges requires a collaborative effort involving all stakeholders concerned and not just HE institutions.

The University of KwaZulu-Natal (UKZN) as an institution of higher learning is mandated to prepare and equip graduates with the necessary skills and knowledge to enable them to contribute to the social, cultural and economic development of the country and participate successfully in the work place (Republic of South Africa 2009:10). UKZN offers various

programmes and disciplines including the discipline of supply chain management. Johnson and Flynn (2015:4) define supply chain management (SCM) as “a system approach to managing the entire flow of information, materials, and services from raw material suppliers through factories and warehouses to the end customer”. The management of the entire flow of information, product or service requires application of basic and applied skills. In essence, managing a supply chain infrastructure requires applying in practice in the workplace those theoretical concepts learnt at universities. Yet higher institutions of learning tend to teach the same material year after year and do not expose their students to a sufficient number of practical, real-life problems (Burke, Carter & Hughey 2013:157). As a result, businesses are calling for HE institutions to equip their graduates with the necessary skills, knowledge, and attitudes as well as a commercial understanding that will enable new recruits to make effective contributions in the workplace.

Since a significant number of UKZN SCM graduates are gainfully employed in the public and private sector, the aim of this article is to provide insight into the work readiness of UKZN SCM graduates who were appointed at a leading manufacturer in Durban, Fast Moving Consumer Goods (FMCG) A (this is a pseudonym used for the purpose of this article). Since there is a dearth of research on the work preparedness of graduates in South Africa, the findings and recommendations of this study will be of value to those involved in curriculum development and the design and implementation of teaching and learning strategies at higher-learning institutions in emerging economies. Further, the findings and recommendations of this article also contribute to the existing body of knowledge by identifying gaps between the knowledge base of graduates and the skills required by the labour market and how these gaps can be reduced.

2. LITERATURE REVIEW

The underpinning models and theories for this article derive from two perspectives, namely, human capital theory and metacognitive theories of learning.

2.1 Human capital theory

The societal changes driving globalisation and technological evolution are reflected in the dynamic changes in the needs of businesses. The wave of a knowledge-based economy has driven businesses towards the need for a competent workforce to survive the

competitive business environment. Modern businesses recognise that employees are the most valuable asset amongst all factors of production, since the probability of success is likely to be low if employees are not effectively integrated in the business (Burma 2014:87). Thus, to a large extent, the success of any business is dependent on its investment in its employees. The importance of such investment has led researchers to develop a human capital framework. Human capital, according to Kwon (2009:1), is a mixture of the human and capital. From an economics perspective, the *human* manages activities such as production, consumption and transaction along the value chain, and *capital* refers to a factor of production used to create goods and services that are not themselves significantly consumed in the production process (Boldizzoni 2008:26).

With such levels of responsibilities needed for effective and continuous productive interaction with self and the environment, employees need to be equipped with an array of skills and knowledge (which can be attained through education and training). Various researchers have maintained that the capacity of humans includes the knowledge, skills, competency, attitudes, behaviour, education and abilities embedded in an individual (Beach 2009:27; Rastogi 2002:229; Youndt, Subramaniam & Snell 2004:336).

Within this context, it can be posited that human capital is a function of the learning activities obtained through education, training and individual motivation that build the competencies needed to succeed in the workplace. The ability of graduates to gain meaningful employment depends on the competencies they develop in HE institutions in their courses in particular and their qualifications in general, as well as their personal efforts towards equipping themselves with the required competencies and their ability to put theories into practice. Consequently, it can be concluded that investment in human capital yields higher productivity levels and increased outputs that are in the interests of society and of the nation at large.

2.2 Metacognitive theory

Early researchers such as Flavell (1976:231) observed that the learning processes involving student engagement entail the effective use of cognitive processes such as memory and attention, the activation of relevant background knowledge and the application of cognitive strategies to achieve particular goals. In 1976, Flavell developed the first description of the concept of metacognition (Henter & Indreica 2014:2; van Velzen 2016:3). He defined

metacognition as "knowledge about cognition and control of cognition". The knowledge component encompasses what one knows about cognition, including knowledge about oneself as a student, about aspects of the task at hand and about strategies one uses to make cognitive progresses, such as planning how to approach a task, evaluating progress as the task is being completed and changing approaches if difficulties arise (Flavell 1976:232). The expanded description of metacognitive theory by Flavell (1979:907) involves four components: metacognitive knowledge, metacognitive experience, task or goals and strategies or activities. Each component is briefly explained below.

Metacognitive knowledge refers to one's knowledge or beliefs about the factors that affect cognitive activities (Flavell 1979:907). The idea is that people have various learning strategies and abilities to understand their limits and patterns of learning so as to enhance performance in learning situations (Ellis, Denton & Bond 2014:4017).

Metacognitive experience refers to a stream of conscious processes in which other information, memories or earlier experiences may be recalled as resources in the process of solving a current-moment cognitive problem (Flavell 1979:910; Lerner & Kline 2006:184). In essence, metacognitive experience enhances graduates' ability to reflect on previous experiences such as success, failure, frustration and satisfaction in solving a current task at work.

Metacognitive task or goals involve the desired outcomes or objectives of a cognitive venture, for example, comprehension, committing facts to memory, producing something or improving one's knowledge about something (Flavell 1979:232). Goal or task orientation impacts on metacognition by focusing on the development of competence, task mastery, self-referential standards and on learning and development of skills (Al-Harthy & Was 2010:2; Elliot 2005:53; Was 2006:531). Therefore, metacognitive tasks enhance graduates' application of classroom theories to practice in the workplace, thereby achieving the required goals.

Metacognitive strategies are learners' knowledge of their own cognitive processes, that is, ordered processes used to control one's own cognitive activities and to ensure that a cognitive goal is achieved (Dignath & Buttner 2008:235; Flavell 1979:911). For graduates, metacognitive strategies enhance their ability to manage their learning process and to

develop good metacognitive skills, which helps them to achieve tasks and goals in the workplace.

Against this background, learning can be seen as an aspect of the cognitive skills necessary to carry out tasks within the learning environment or in the workplace. When knowledge is acquired, learning is enhanced, irrespective of the learning environment. Research has revealed that academic achievement is associated with higher levels of metacognitive awareness and that metacognitively aware learners use more efficient specific learning strategies and attain higher performances (Kallay 2012:372). Life-long learning and metacognition promote graduates' ability to reflect and transfer theoretical concepts learnt at higher institutions into practice in the workplace and to achieve specific goals (Marra, Kim, Plumb, Hacker & Bossaller 2017:5). Therefore, educational objectives should draw heavily on teaching and learning that allows learners to process information to achieve performance. Thus, the development of metacognitive abilities would help universities to improve the employability of today's graduates (Silva *et al.* 2013:112).

2.3 The role of the South African higher education system

De Weert (2011:13) is of the opinion that HE systems should be adapted to the needs of modern society and the challenges of a global economy, for example, by addressing the employability of today's graduates. Employability can be defined as "the set of achievements, skills, understandings and personal attributes that make graduates more likely to gain employment and be successful in their chosen occupations, which benefits themselves, the workplace, the community and the economy" (Yorke 2006:8). The increasing global economic challenges raise a shared concern about the role of HE in addressing the employability of contemporary graduates.

The education system in South Africa has been undergoing a transformation process since the abolition of apartheid. The transformation landscape under the post-apartheid government began with the review of the South African Constitution, which prescribes the abolition of the racially divided departments of education and the establishment of a single education system within a department of education (Fiske & Ladd 2004:4). Recently, the Department of Education was split into the Department of Basic Education (DBE) and the Department of Higher Education and Training (DoHET). While DBE is responsible for primary and secondary schools, DoHET is responsible for tertiary education and vocational

training. The latter comprises Further Education and Training (FET) colleges, Adult Basic Education and Training (ABET) and HE institutions. The HE institutions consist of public and private universities offering qualifications in accordance with the requirements of the Higher Education Qualifications Framework (HEQF) (DoE 2007:13; Government Gazette 2013:41).

2.4 Graduates' employability skills

The concept of employability relates to the following paradoxes and causalities: individual capabilities versus actual registered employment; the problem of youth employment; skill shortages and skill surpluses; individual factors versus personal circumstances; and justification of the professional orientation of jobs versus their professional characteristics (McQuaid & Lindsay 2005:209; Pavlin 2014:580; Teichler 2009:302). In accordance with these paradoxes, Silva *et al.* (2013:111) view employability from two dimensions, namely, the theoretical and the practical. At the theoretical level, employability is defined as graduates' potential to adapt and utilise their knowledge, skills and attitudes in promoting their social inclusion and ensuring their quality of life (Silva *et al.* 2013:111). At the practical level, employability refers to what potential graduates bring into practice through their skills (Silva *et al.* 2013:111). As a result, employability can be referred to as an individual's ability to obtain a meaningful job (Pavlin 2014:580).

The changing nature of global value chains is widening the gap between the knowledge that graduates gain in the education system and the skills required by the labour market (Andrews & Higson 2009:415; Ayofe 2009:3). This gap has led to increasing discussion of the roles of all stakeholders involved in the acquisition of skills. Beddie, Creaser, Hargreaves and Ong (2014:15) lament that employers often complain that graduates are not job-ready. Organisations expect HE institutions to prepare graduates for the labour market and develop their employability skills. However, academics are of the view that delivering the correct combination of skills and attributes cannot be the responsibility of the education provider (McCrimble Research 2014:internet; Moodie, Fredman, Bexly & Wheelahan 2013:internet). Pavlin (2014:541) posits that the development of competencies for sustainable employability requires a three-tier commitment by stakeholders. This refers to the compatibility of the individual, the education system and professional destinations. Although the literature generally deals with graduate employability skills from the perspectives of HE institutions

and employers, this article proposes an additional stakeholder, namely, the individual, that is, the learner/graduate/employee.

2.5 Institutional based competency development

The HE institutions are partly responsible for instilling employability skills in graduates before they can enter the labour market. Skills that are mainly acquired through HE are research skills, the managing of complex information and critical thinking (CBI 2009:8). In addition, HE provides opportunities to transfer soft skills such as self-management, numeracy, communication and literacy, teamwork, problem solving, decision making and business and customer awareness. Such transfer of skill is mostly applicable when HE systems have competency-oriented study programmes embedded in the curricula and use knowledge transfer partnerships (KTPs) to enhance employability skills (Young 2013:19). In a pedagogical environment, the assessments can manifest in the form of group assignments, class presentations, individual assignments and class tests and may be supplemented by work internships. These assessment methods measure the learners' ability to develop employability skills (Zulauf 2006:136).

Competency development by employers. Employers expect the HE system to prepare graduates with the basic skills needed to function effectively and add value to the workplace (Brennan & Little 2010:3). However, de Weert (2011:35) and Sastry and Bekhradnia (2007:10) suggest that employers have a responsibility to equip graduates with the necessary skills needed to carry out their task. Such skills can be transferred through programmes such as work placements/work-based learning/internships and continuous training (Association for the Development of Education in Africa (ADEA) 2015:5). Thus, employer engagement with the HE sector/institutions could provide better skills planning because modules offered could be aligned to the needs of the employer.

Self-motivated competency development. The individual's attitude and behaviour towards work determines the functionality level of a graduate recruit. This relationship is seen through the lens of the Theory of Planned Behaviour (TPB), which posits that behavioural intentions are influenced by attitude, which in turn reflects on the expected outcome, subject to the risk evaluation and benefits of that outcome (Ajzen 1991). In other words, TPB assumes that behavioural achievement depends on both motivation (intention) and ability (behavioural control) to perform (Ajzen 1991). In support of this approach, Adams and De

Kock (2015:2) propose that beliefs about performing a particular behaviour generate a favourable or unfavourable attitude towards the behaviour. According to this argument, well-developed employability capacities (i.e. workplace training and development) would help individuals to function successfully within a continuously evolving work environment and contribute to employer requirements over the course of their working lives (Daniels & Brooker 2014; Tomlinson 2010). It is therefore expected that employers will subject graduate recruits to training. However, graduates have to be willing to learn, develop, bring new ideas and contribute to the development and achievement of organisational goals.

3. THE PURPOSE OF THE STUDY

The purpose of this study is twofold. Firstly, it determines the work readiness of UKZN SCM graduates employed at FMCG A and at which level (undergraduate or postgraduate) they are better prepared for the work environment. Secondly, it examines whether there is a gap between the knowledge base of graduates gained from the education system and the skills required by the labour market. There is a dearth of literature on the employability of SCM graduates and, currently, no known research studies have been conducted on the work readiness of UKZN SCM graduates.

The research objectives that this study addresses are:

- to determine whether UKZN SCM graduates are suitably equipped for the work environment;
- to determine at which level (undergraduate or postgraduate), graduates are better equipped for the work environment;
- to find out whether there is a gap between the knowledge base of graduates gained from the education system and the skills required by the labour market.

4. RESEARCH METHODOLOGY

4.1 Research design

This article reports on a descriptive and exploratory study that was conducted to determine the perceived work readiness of UKZN SCM graduates at a large FMCG company in Durban. Due to the exploratory nature of the study, a qualitative research approach was adopted to address the research objectives. This approach provided the authors with a

deeper understanding of the relevant phenomena (Saunders, Lewis & Thornhill 2016:168). The research process included a review of literature to assist with the understanding of the phenomena and the formulation of the interview questions.

4.2 Sampling

The snowball method, a non-probability technique, was used to find the specific participants for this research, as the authors were unfamiliar with the participants. Snowball sampling is a technique where participants refer researchers to others who have similar or different characteristics, experiences or attitudes from their own (Cooper & Schindler 2006:204). The participants in this study included the managers involved in recruitment, the supervisors who have a direct working relationship with the graduates and UKZN graduates (undergraduate and postgraduate) employed at FMCG A. The final number of participants was determined by the saturation level and consisted of sixteen (16) participants. Guest, Bunce and Johnson (2006:61) state that 6-12 interviews are satisfactory for the development of valuable interpretations and the occurrence of saturation.

4.3 Data collection

Data were collected through sixteen semi-structured face-to-face interviews at the participants' offices, using an interview guide.

The interview guide consisted of a number of closed questions with rating scale for the responses as well as open questions intended to gain more information during the interview. The closed questions comprised a list of skills that are mostly acquired through HE. Participants were asked to rate on a scale from most important (1) to least important (8) which of these skills are required by employers. The aim of the closed questions was to find out from the participants what they perceived to be the most important skills required. Such rating questions are often used to collect opinion data (Saunders *et al.* 2016:457). The interview guide was pre-tested with one practitioner at FMCG A to ensure that the questions were clear and unambiguous.

One of the authors of this article conducted the interviews. A convenient time was arranged through emails. The participants were given the interview guide prior to interviews being conducted so they could ask questions and seek clarity before responding to questions. The purpose of the interviews was to determine what participants perceived to be the skills that

were required by employers and the skills they had acquired through HE. In this manner, consistency and accuracy were maintained during the interviews, which contributed to the trustworthiness of the results of the study.

In the interests of reliability, the interviews were recorded using a voice recorder and augmented by making handwritten notes to be transcribed later. Permission to use a voice recorder was granted by the participants. The recordings were transcribed verbatim by one of the authors and then checked against the voice recordings for accuracy by the other author – any transcription errors were corrected.

4.4 Data analysis

The qualitative data (open questions) were analysed using content analysis. As described by Saunders *et al.* (2016:350), the method of content analysis enables researchers to analyse large texts and systematically identify the presence of certain words, concepts and themes. Cooper and Schindler (2006:449) describe content analysis as “a research technique for the objective, systematic, and quantitative description of manifest content”. The data was coded into categories and then analysed to establish the frequency of themes and words.

The quantitative data (closed questions) was coded and the responses captured in SPSS. Descriptive statistics were used to explore the data collected and to summarise and describe those data. These included mean, standard deviation and rank.

5. DATA ANALYSIS, FINDINGS AND DISCUSSIONS

The results and explanation of the findings are presented according to the purpose and objectives of this study, namely: to determine whether UKZN SCM graduates are suitably equipped for the work environment; to determine at which level (undergraduate or postgraduate), graduates are better equipped for the work environment; to find out whether there is a gap between the knowledge base of graduates gained from the education system and the skills required by the labour market; and, if there is such a gap, what areas are lacking and what can be done to narrow these.

5.1 Profile of participants

The participants' demographic information is presented in Table 1.

Table 1: Profile of participants

Participants	Gender	Level of Management	Number of years in company	Discipline	Institution attended
P1	Female	Top	> 5	Others	Others
P2	Female	Lower	1 to 5	Others	Others
P3	Male	Middle	1 to 5	Others	Others
P4	Female	Lower	> 5	Others	Others
P5	Female	Lower	1 to 5	SCM	UKZN
P6	Male	Lower	1 to 5	SCM	UKZN
P7	Male	-	<1	SCM	UKZN
P8	Male	-	<1	SCM	UKZN
P9	Male	-	<1	SCM	UKZN
P10	Female	-	1 to 5	SCM	UKZN
P11	Female	Middle	1 to 5	SCM	UKZN
P12	Female	Lower	1 to 5	SCM	Others
R13	Female	Lower	1 to 5	SCM	Others
R14	Female	Lower	1 to 5	SCM	UKZN
R15	Female	Lower	1 to 5	SCM	UKZN
R16	Female	Lower	<1	SCM	UKZN

Source: Derived from the results of the interviews

5.2 Objective 1: Work readiness of UKZN SCM graduates

In presenting the research findings for this section, Table 2 sets out a list of skills that are mostly acquired through HE (CBI 2009:8; Young 2013:19). Participants were asked to rate

on the scale from most important (1) to least important (8) which of these skills are required by employers. Frequency, mean scores and standard deviation were used to rank the skills.

Table 2: Skills required by employer*

Skills acquired through higher education N=12	1	2	3	4	5	6	7	8	Mean	Standard Deviation	Rank
Problem solving	5	0	2	0	2	3	0	0	3.25	2.22	1
Critical thinking	2	2	3	2	2	0	1	0	3.33	1.78	2
Communication	1	3	1	3	2	1	1	0	3.75	1.82	3
Decision making	2	2	1	3	1	2	0	1	3.83	2.17	4
Self-management skills	3	1	2	1	0	1	3	1	4.17	2.69	5
Business customer awareness	1	2	2	2	1	2	1	1	4.25	2.18	6
Team work	3	2	0	0	2	1	3	1	4.33	2.74	7

* For this section of the study, only participants who are at supervisor and management level were included. These are participants P1-P6; P11-16.

Source: Researchers' own construction 2018

The findings from the interviews revealed that problem solving followed by critical thinking appear to be the most important skills required by employers. Communication and decision making skills are also important. The findings also suggest that self-management skills are required by employers. However, self-management can be defined as the individual's work ethic and appears to relate more to the character traits of individuals than to learned skills. These findings correspond with those of Zulauf (2006:136), who identified the need for students to develop self-management skills at university, which in turn will develop their employability skills.

With regard to the work readiness of graduates, thirteen of the sixteen participants indicated that UKZN graduates are work ready but require additional support such as training and development from the employer. These participants were of the view that graduates acquire the basic skills at university, but that, in addition, they require training from the employer in

order for them to effectively deliver on daily tasks. Three of the participants, who are former UKZN graduates, indicated that they were not work ready since the education they acquired at the university did not prepare them for task delivery. These participants relied mostly on the training provided by their employer and personally put in extra effort. Some participants commented as follows:

I will say 'yes and no'. Yes, because the graduates have acquired the basic skills required at entry level to pick up a job from an organisation. No, because irrespective of the basic skills assumed to have been acquired, graduates cannot effectively deliver on the daily task without additional support such as training from the organisation (Participant 1).

I work with the HR department and met with graduates recruited from various universities. I would therefore speak from a general perspective. Being work ready entails two things:

- (1) Acquiring the basic requirements to join the business world. With respect to this, 'yes' graduates acquire basic skills to meet up with the entry requirements to secure a job.*
- (2) Applying theories learnt for effective job delivery; here I will say 'no'. If graduates are left to apply theories learnt from educational system to job task without training programmes, the end result would be a disaster. Therefore graduates require support systems such as work placement, work internship etc. to function effectively at the business world (Participant 3)*

It depends; some graduates are work ready because they acquired the basic requirements to secure a job at entry levels from the universities. In the same vein, securing the job has no guarantee that the graduate will carry out the required task successfully if not supported with training and development. So I would yes they are ready and no they still require a certain form of push to ensure successful delivery of daily tasks (Participant 12).

No. Using myself as an example, the education system I acquired did not help me to deliver on my job task. I relied mostly on the training provided by my employer. At the

university, we were not taught the use of excel worksheets. When I got here, I had to first learn excel before I was able to do my job (Participant 7).

In line with the concept of employability by Silva *et al.* (2013:106), the authors considered work readiness from the theoretical and practical perspective. From a theoretical perspective, graduates' work readiness is viewed as the skills, knowledge, attitudes and understanding of the concepts of the module and the practical perspective refers to the application of theories (metacognition) in the work place. Within this approach, the findings of the study support the view that graduates' employability/work readiness would depend on the interface between theories acquired, metacognition and industry application of skills and knowledge.

5.3 Objective 2: The level at which graduates are better equipped for the work environment

Only twelve participants were asked to answer this section, since the authors wanted to gain insight from the participants at supervisor and management levels based on their experiences of working with graduate trainees. Nine of the participants observed that graduates have necessary competencies at both undergraduate (Bachelor of Commerce) and postgraduate level (Bachelor of Commerce Honours). The remaining three participants are of the view that graduates are better prepared at postgraduate level. Some of the participants commented as follows:

Some graduates with Bachelor of Commerce degree I have worked with have exhibited a good level of job competency. But there is an added advantage at Bachelor of Commerce Honours level. Irrespective of both degree levels, organisational training support programmes enhance graduates daily task delivery. Over here, we subject all university graduates irrespective of level of degree to various work related training programmes to enable them deliver on their tasks and responsibilities (Participant 1).

Having worked with graduates recruited at Bachelor of Commerce and Bachelor of Commerce Honours levels, I would say graduates are prepared at both levels. This is because, we provide training support for all the graduates otherwise they will not function effectively (Participant 3).

I believe that graduates are better prepared at B. Com Honours level. (Participant 6).

These findings were unexpected, since, at Bachelor Honours Degree level, students are expected to conduct research-based studies, more work-integrated learning is acquired, and the level consolidates and deepens the graduates' knowledge. Brooks and Everett (2009:346) found that graduates considered a return to postgraduate study as a "felt need to 'compensate' for poor performance, 'specialise' to gain more work-related skills and 'gain the edge' within a mass system of higher education". Bowman (2005:241) identifies a group of graduates 'coming back' into taught postgraduate courses and seeking distinction in the labour market. D'Aguiar and Harrison (2015:6) found that graduates are returning for postgraduate studies either to obtain additional work-related skills or to differentiate themselves from others.

5.4 Objective 3: The knowledge and skills gap of graduates

The aim of this objective was to determine the gap between the knowledge graduates acquire in the education system and the skills required by the labour market, namely, to identify the "gap between theory and practice". The authors specifically targeted UKZN SCM graduate employees of FMCG A as they wanted to understand and provide insight into the gap, if any, between theories taught at UKZN and the application thereof in the work place. Out of the 16 participants, ten (10) of these were UKZN SCM graduates (participants 5 to 11 and participants 14 to 16), who were interviewed. These ten participants were asked which skills they had acquired through HE. The results presented in the second column in Table 3 represent the number of times a particular skill was mentioned by participants.

Table 3: Knowledge and Skills gap of graduates

Knowledge and skills	Acquired through higher education N=10
Problem solving	7
Communication	6
Teamwork	6
Self-management skills	5

Numeracy skills	5
Decision making	4
Critical thinking	4
Business customer awareness	4

Problem solving, communication and team-work appear to be the main skills that participants had acquired through HE. Problem solving ranked as the most important skill required by employers (Table 2), communication ranked third and teamwork seventh. Critical thinking and decision making are also important skills required by employers, and this is an area the university could focus on.

The participants were then asked whether they had attended any competency development programmes whilst at UKZN and/or at their respective workplaces to enhance their skills and knowledge. All the participants indicated that they were able to apply theories learnt at the university in practice at their work place and that they relied on skills embedded in the modules they studied. Six of the participants noted that, in addition, the internship programme at their workplace enhanced their skills. All participants stated that the skills acquired at UKZN were not sufficient to enable them to deliver on the job. In order to bridge this gap, their employer provides employees with continuous training. Some quotes by the participants follow:

At the university, I relied on the skills development practices/programmes embedded in the modules I studied. Similarly at my work place I went through a graduate programme which enhanced my job competency level (Participant 6).

While at the university, I did an internship which was not linked to the university programme. I looked for opportunities during vacations to do temporary work. The temporary work and the theories I learnt at school helped me to adjust in my organisation. I also attend skills development programmes in my organisation (Participant 10)

I did a competency driven programme at my work place but none while I was at the university (Participant 14).

Although the participants indicated that they are able to apply theories learnt at the university to practice at work, the data revealed that there is a gap between what graduates learn at university and the skills required in industry. In order to identify this gap, participants were asked whether they had acquired all the necessary skills required for their job at the UKZN. Even though the participants acknowledged the skills acquired at the university which are embedded in the modules they studied, they remarked that those skills were not sufficient to address the task requirements at industry level. The following are some quotes from the participants:

I don't think anybody will acquire all the necessary skills needed for businesses while at university. I did not acquire all the skills needed for my job from the university. However, what I learnt at the university helped me to apply theories to practice at my work place (Participant 10).

No. In addition to the theories I learnt at university, my organisation provided me with the necessary skills to ensure effective delivery of my daily task (Participant 14).

Not necessarily. I acquired some skills at university and some at my work place. I am also able to apply the theories I learnt at university to practice at my organisation (Participant 16).

These findings are in accordance with those of studies conducted in different parts of the world which point to an increasing gap between what HE systems offer and what industry requires from graduates (Andrews & Higson 2009:415; Ayofe 2009:3). The findings of this study reveal that graduates required further training and development after they had completed university.

6. CONCLUSION

The aim of this research was to determine whether UKZN SCM students are suitably equipped for the work environment, to determine at which level (undergraduate or postgraduate level) students are better equipped for the work environment and to find out whether there is a gap between the knowledge base of graduates gained from the education system and the skills required by the labour market. The findings reveal that graduates are work ready but require additional training and development from the employer. Further, it was found that graduates have the necessary competencies at undergraduate and

postgraduate level. Lastly, there is a gap between the knowledge graduates learnt at university and the skills required by the employer, such as critical thinking and decision making skills. Participants noted that the skills required at UKZN were not sufficient and, in order to bridge this gap, the employer provides graduates with continuous training.

There are two main limitations to the insights provided by this research. Firstly, only 16 participants from one leading FMCG retailer were included in the study, and therefore the findings cannot be generalised to all graduates of the University of KwaZulu-Natal or to all students in general. Secondly, the focus was on the discipline of supply chain management and not on other disciplines.

For further research, a similar study could be repeated on a different set of graduates registered for other modules in order to explore whether the results would be consistent with the results of this study.

7. RECOMMENDATION AND IMPLICATIONS

In order to address the challenges indicated by the findings, it is recommended that universities consider working more closely with industry, particularly in the field of SCM. For example, academics could consult with professional bodies and industry linked to SCM with regard to what is required in the workplace so that they can structure a more relevant curriculum. Further, it is suggested that the discipline considers the setting up of an advisory board to assist with continuous improvement of module offerings and their effectiveness as well as the employability of students. Members of the advisory board could be members of professional bodies, industry stakeholders, alumni and peers from different universities.

The findings and recommendations of this study are of value to those involved in curriculum development and with the design and implementation of teaching and learning strategies at higher-learning institutions in emerging economies. It is suggested that the recommendations will contribute to enhancing undergraduate teaching and learning strategies adopted by institutions of higher learning and, in doing so, help prepare graduates to take their place in the job market.

Lastly, the findings and recommendations made in this article contribute to the existing body of knowledge by identifying gap areas between the knowledge base of graduates gained

from the education system and the skills required by the labour market and how these gaps can be narrowed.

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