A dynamic capabilities view of employability
Exploring the drivers of competitive advantage for university graduates

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Abstract

Purpose – The increasing demand for post-secondary education, and the ongoing difficulty students' face in securing appropriate work upon program completion, highlight the importance of an enhanced understanding of employability resources for university graduates. Just as organizations achieve a strategic advantage from resources and dynamic capabilities (DCs), university graduates can similarly apply these principles and tactics to be competitive in the job market. The purpose of this paper is to ask the question: how can new graduates enhance their competitive advantage when entering the employment market? To address this question the authors propose to adopt the DCs framework to analyze the competitive advantage of a graduate and argue that university graduates can take specific steps to enhance their own competitive advantage in the labor market.

Design/methodology/approach – An extensive review of the existing human resource and strategic management literature was used to develop a conceptual DCs model of employability. The core dimensions of the conceptual model were refined using 26 one-on-one interviews with employers of new university graduates. This study concludes by recommending specific empirical and experimental research to further test the model.

Findings – The results from the qualitative study identified the importance of four specific resources that university graduates should possess: intellectual, personality, meta-skill and job-specific. In addition, the authors suggest that integrated DCs are crucial for enhancing the value of these individual resources. Both pre-graduate application and the construction of personal narratives are essential signals that university graduates can mobilize individual resources in a complementary and strategic manner, in real-world settings, to maximize value.

Research limitations/implications – This is an exploratory study and is designed as a foundation for future empirical and experiential research.

Practical implications – The findings suggest that, in order to increase employability, university students need to assume a DCs view of competitive advantage. As a result, students need to reflect on both their intrinsic and learned resources to create a systematic competitive advantage that is valued, rare and difficult to replicate or substitute.

Social implications – This paper challenges students to assume a holistic view of education by recognizing education extends far beyond a classroom. Therefore, differentiation and value creation is reflected in the synthesis and application of both intrinsic and learned resources.

Originality/value – The integration of strategic management and human resource literature is a unique theoretical approach to explore the drivers of graduate employability.

Keywords Employability, Dynamic capabilities, Qualitative, Resource-based view, University graduates

Paper type Research paper

Both practitioners and scholars have discussed the unprecedented pace of change currently facing businesses and organizations (D'Aveni *et al.*, 2010; Ferrell and Hartline, 2011; Marsh, 2014). Social and cultural factors such as technology, social media and globalization are transforming entire industries and how they are managed (D'Aveni *et al.*, 2010; Ferrell and Hartline, 2011). One outcome of this change is a dramatic increase in the level of competition facing businesses (D'Aveni, 1994; Lawson *et al.*, 2009). D'Aveni *et al.* (2010) argue that business may be entering an age, where the concept of sustainable competitive advantage is no longer achievable. Instead, businesses and entire industries require agility to meet dynamic market conditions. Consequently, competitive advantage today is defined by the ability of a business to deliver scalable and customizable products and services to increasingly smaller segments (Day, 2011).

We believe these dynamics facing business today offers rich insight into the challenges facing university graduates. In the past, businesses approached product development in a linear and staged process, often in isolation from the customer (Nash, 1937). When the product was complete, it was brought to market. In many respects, this process mirrors how university students view their academic career. Students enter a staged four year product development cycle in isolation from the customer. Upon graduation, they launch their product (themselves) to the market with the hope that the features and benefits they developed are in demand. However, like in business, evidence suggests that in an era of hyper-competition this staged approach to education is no longer sufficient. For example, in one recent study, 96 percent of university presidents in the USA responded that they were adequately preparing graduates for the workforce; in contrast only 33 percent of senior executives shared this opinion when asked about their views of university graduates (Bisoux, 2015). In another survey, 40 percent of employers in the US believe that there is a significant skills gap between graduates and entry-level requirements (McKinsey and Company, 2012). Moreover, new university graduates face a hyper-competitive job market driven by increasing supply. For example, between 1992-2009, the total number of degrees granted by Canadian universities increased by 48 percent (Statistics Canada, 2009). What has resulted is a saturated entry-level employment market where one in five of these graduates accept positions for which they are overqualified (Council of Ontario Universities, 2014).

While these results are unfortunate they are also completely avoidable. Scholars have argued that most current universities are unable or unwilling to respond to changing market needs. We don't disagree, however, we argue that the first step forward is a radical redefinition of how students view education and ultimately their competitive advantage. When students enter university today, it is critical for them to recognize that their formal education is only one dimension. Instead, students must constantly be assessing highly dynamic employer needs and how these capabilities can be developed both inside and outside of the classroom.

Thus, the current study seeks to build on questions raised by Rae and Finch and colleagues (2013). Specifically, we ask the question: how can new graduates enhance their competitive advantage when entering the employment market? To address this question we propose to adopt the dynamic capabilities (DCs) framework to analyze the competitive advantage of a graduate and argue that university graduates can take specific steps to enhance their own competitive advantage in the labor market – employability. Furthermore, we contend that the principles leading to the development of competitive advantage for organizations can be extended to the level of the individual to explain the

competitive position of university graduates entering the labor market. In doing so, we respond to Wright *et al.* (2001) who call for researchers from both strategy and human resources to "exploit the unique knowledge and expertise of both fields, and synergistically contribute to the generation of new knowledge regarding the roles that people play in organizational competitive advantage" (p. 717).

Our position is that a university graduate's capabilities can be placed into interdependent resource categories: intelligence resources; personality resources; meta-skill resources; and job-specific resources. Moreover, we contend that a competitive advantage is dependent on the ability of university graduates to mobilize and exploit the linkages of these resources throughout their university study years. We term this as possessing integrated dynamic capabilities (IDCs). In adopting these resource categories, we propose a conceptual model of a university graduate's employability that we then refine through the use of qualitative methods.

This paper is organized as follows: first, we review the existing literature on factors that influence university students' competitive position as they enter the workforce. This is followed by a series of research questions associated with the resources that contribute to university graduates' competitive advantage. These questions are then explored using findings from a series of interviews with employers of university graduates. The outcome of this qualitative study is a refined model of university graduate employability, associated hypotheses, and a proposed research design to further test our findings. We conclude by presenting our contributions, limitations, and implications for practice.

A DCs view of employability
Employability is defined as "a set of skills, knowledge and personal attributes that make an individual more likely to secure and be successful in their chosen occupation to the benefit of themselves, the workforce, the community and the economy" (Moreland, 2006, p. 21). The link between education and employability has been researched from a variety of perspectives including university recruiters (Moy, 2006); faculty members (Aistrich *et al.*, 2006); employers (Finch *et al.*, 2012), graduates (Holden and Hamblett, 2007) and various other stakeholder groups (Culkin and Mallick, 2011; Wickramasinghe and Perera, 2010; Nicholson and Cushman, 2000). Employability research has also focused on how it might be influenced by specific factors such as academic performance (Ng *et al.*, 2010); graduates' meta-skills, including interpersonal and communication skills (Blackwell, 1981; Kaplan *et al.*, 2010; Kelley and Bridges, 2005); job-specific skills (Huang and Lin, 2011), critical thinking (Reid and Anderson, 2012) and specific personality traits, such as motivation and adaptability.

Despite the attention paid to the relationship between education and employability, much of the research into employability remains theoretical and prescriptive (Wickramasinghe and Perera, 2010). In this study, we propose to address these critiques by demonstrating that the employability of a university graduate can be effectively framed in the context of strategic management theory. The resource-based view (RBV) posits that organizations can create a competitive advantage by acquiring or developing resources that are rare, valuable, and hard to imitate and replace (Barney, 1991). In a firm context, resources have been defined to include both tangible assets (e.g. capital, facilities) and intangible assets including capabilities, organization processes, information and knowledge (Barney, 1991; Kaplan and Norton, 1996). Teece *et al.* (1997) expanded on RBV and argued that in turbulent environments,

organizations require DCs that enable them to alter or reconfigure resources and competencies to remain competitive. They defined DCs as the "ability to integrate, build, and reconfigure internal and external competencies to address rapidly changing environments" (Teece *et al.*, 1997, p. 517). DCs can serve different purposes, which include integrating different resources (i.e. reconfiguration), reallocating resources, or acquiring and releasing resources (Eisenhardt and Martin, 2000). For instance, in new product development, some DCs may be directed at enhancing an organization's ability to integrate new knowledge or resources into reconfigured capabilities (Pavlou and El Sawy, 2011). DCs are developed over time through practice (Teece *et al.*, 1997).

Following Barney (1991) and Teece *et al.* (1997), we suggest that employability, as a graduate competitive advantage, can be viewed as the complex integration and application of five specific resources and DCs that are perceived as valuable, rare, hard to imitate and to substitute by the market: intelligence, personality, meta-skill, job-specific, and integrated DCs. We discuss each in detail below.

Intellectual resources
Intellectual resources are cognitive skills that are complex, requiring "judgment, analysis, and synthesis; and are not applied in a rote or mechanical manner" (Halpern, 1998, p. 451). In this study, we follow previous research that defines intellectual resources as including dimensions associated with performance intelligence, verbal intelligence and full-scale intelligence (Harris, 2004; Ackerman and Heggestad, 1997). Intelligence resources incorporate critical thinking skills, which enable individuals to generate new ideas and reach desired and rational outcomes (Reid and Anderson, 2012). Intelligence resources also involve decision making, problem solving, reasoning and knowing how to learn from previous situations (Reid and Anderson, 2012). Previous empirical studies demonstrate a strong relationship between intellectual resources and employability across a variety of occupations and contexts (Scherbaum *et al.*, 2012; Stiwne and Jungert, 2010; Schmidt and Hunter, 2004).

A consensus exists among scholars that intellectual resources are critical for university graduates. Previous research indicates that employers perceive intellectual capability as a core attribute of all university graduates, which suggests that it is not perceived as unique (Hinchliffe and Jolly, 2011). Cai (2013) citing signaling theory, suggests that the degree itself becomes a surrogate for ability, and, therefore, the real competitive advantage of intellectual resources may lie in how graduates can combine these capabilities with other resources to maximize value for employers and differentiate themselves from other graduates (Hinchliffe and Jolly, 2011).

Personality resources
Personality has been shown to explain behavior at both the individual and group level (Alker, 1972; Jenna and Goswami, 2014). The five-factor model, which includes dimensions of emotional stability, openness to experience, extraversion, agreeableness and conscientiousness, has been shown to be a valid and reliable measure that remains stable over time (McCrae and Costa, 1997; Mount *et al.*, 2005). The relationship between personality and dimensions of employability (including career success and satisfaction) has been studied extensively in the past two decades and the use of personality data to guide hiring decisions remains a source of debate among scholars and practitioners. On the one hand, some researchers argue that measures of personality, for purposes of recruitment and selection, are both invalid and unreliable (Guion and Gottier, 1965) and that any assessments of personality must be undertaken with great care and caution

(Christiansen *et al.*, 2005). On the other hand, personality and performance may be intricately linked, and personality may have a direct influence on an individual's leadership ability and style, a team's performance, and the overall effectiveness of a group or organization (Hogan, 2007). Further, personality resources constitute an important element within the employment context, as managers might motivate their employees differently based upon these varied characteristics (Tett and Burnett, 2003).

Vocational interests can be seen as an expression of personality (Hogan and Blake, 1999) and this connects personality with employment choices and outcomes. Research shows that employers perceive specific personality traits as indicators of graduate future performance and contributions (Wellman, 2010) because only 11 percent of new hires fail for reasons related to technical skills and knowledge (Murphy, 2012). As a result, a growing recruitment trend is to examine the congruence between personality and employer needs (Barrick and Mount, 2000; Boudreau *et al.*, 2001).

Some other research suggests that personality resources are capable of predicting career success. For example, Hogan *et al.* (1996) conclude that "well-constructed measures of normal personality are valid predictors of performance in virtually all occupations" (p. 469). This seems to suggest that there is value in the early identification and understanding of personality within the employment landscape (Judge *et al.*, 1999). Specifically, two personality factors, conscientiousness (Schmidt and Hunter, 1998) and openness to experiences (Gottfredson *et al.*, 1993), have a stronger relationship to employability than other factors. Conscientiousness includes dimensions such as dependability, organization, goal-driven and being highly organized. Openness to experience includes dimensions such as intellectual curiosity, imagination, creativity and independence. An individual who is high on openness to experience welcomes new ideas and experiences that contribute to divergent thinking, intellectual curiosity and problem solving (Judge, 2000). While some studies note that conscientiousness showed a consistent relationship to job performance across various occupations (Mount and Barrick, 1998), others contend that "intelligence and conscientiousness are excellent indicators of potential, not guarantees of success" (Behling, 1998, p. 82). As such, intellectual and personality resources alone are not sufficient considerations in the recruitment and selection process of new graduates. Rather, employers seek evidence that graduates have leveraged their intrinsic resources of intelligence and personality to develop new capabilities. The role of these learned resources will now be considered.

Meta-skill resources
Meta-skills are the effective development and application of an individual's intelligence and personality resources and, as such, both researchers and employers have placed increasing attention on the importance of this capability (Chamorro-Premuzic *et al.*, 2010; Finch *et al.*, 2013). While job-specific knowledge is typically context specific, meta-skills are non-academic skills presumed to be useful in a range of working environments (Chamorro-Premuzic *et al.*, 2010). Recent evidence suggests that the development of meta-skills is an important predictor of employability (Economist Intelligence Unit , 2014; Canadian Council of Chief Executives, 2014; Finch *et al.*, 2012). No longer is academic achievement sufficient for university graduate employment and there is a requirement for "higher education to produce graduates with highly developed and recognizable transferable skills" (Dickinson, 2000, p. 159). These skills include listening, communication, teamwork, adaptability, social sensitivity, managing relationships, time management, goal-orientation, and task completion. This growing body of research indicates that graduates who display these skills signal enhanced employability to potential employers.

Job-specific resources

Job-specific resources, including knowledge, skills and passion, are other important factors considered by employers when evaluating graduates (Huang and Lin, 2011; Laker and Powell, 2011; Smith *et al.*, 2008; Rosenberg *et al.*, 2012). Specifically, these job-specific resources signal to employers that a graduate possesses the minimum proficiencies required to perform a specific role (Bhaerman and Spill, 1988). Passion refers to "a positive fulfilling work-related state of mind that is characterized by vigor, dedication and absorption" (Llorens *et al.*, 2006, p. 702) and is demonstrated through activities that are personally fulfilling (Maslach and Leiter, 2008). Further, Zigarmi *et al.* (2009) contend that job-specific passion is a multi-dimensional construct that incorporates cognition (i.e. a rational evaluation that an individual prefers one job over another), affect (i.e. an individual's positive emotional response to a specific job) and behavioral-intentions (i.e. a desire to do this job). As such, individuals may have passion for a specific role and/or passion for a specific firm and evidence suggests that job-specific resources related to knowledge, skills and passion are all considerations within the recruitment and selection process.

Integrated DCs

According to the RBV, rare, valuable, hard to imitate and hard to substitute resources are essential but not sufficient components to the development of competitive advantage (Barney, 1991). One source of a competitive advantage results from an organization's ability to combine and reconfigure these key resources and competencies (Eisenhardt and Martin, 2000). Similarly, we contend that university graduates with intellectual, personality, meta-skill and job-specific resources must develop the ability to combine or reconfigure these resources to achieve competitive advantage and employability. While we acknowledge that DCs serve different purposes, we focus on the successful reconfiguration and integration of resources – what we call IDCs.

In the context of university graduates, we isolate two factors that together create IDCs. The first is the acquisition of evidence that they are able to use their specific resources in real-world situations. Since DCs are learned through practice, it is important for students to develop an ability to reconfigure these resources during their study years. The second factor is the ability for graduates to demonstrate that they possess the requisite resources and competencies and the skills to reconfigure their resources (Danneels, 2011). In the university context, graduates must be able to signal a clear view of their own skills, knowledge and attributes (Cai, 2013). One way of achieving this objective is to synthesize individual resources and capabilities into a holistic, compelling and personal narrative that appeals to potential employers. In combination, these two factors indicate that graduates have developed IDCs. They are discussed more fully below.

Pre-graduate application. The relationship between pre-graduate application and employability has been studied extensively (Economist Intelligence Unit, 2014; Hopkins *et al.*, 2011; Gault *et al.*, 2010; Callanan and Benzing, 2004). Pre-graduate application may include in-program experiential learning opportunities (e.g. co-op, service learning, internships) or more informal career-related work experience, such as part-time or summer employment. A recent study suggests that an estimated 29 percent of university graduates complete a program that includes a work placement component (Gallup-Purdue Index Report, 2014). In one study of 142 recent university graduates, students who completed internships reported both higher job acquisition skills and higher satisfaction associated with compensation (Gault *et al.*, 2000). The researchers concluded that "experiential education plays a vital role in enhancing the preparation

and success of undergraduates in the entry-level job market" (Gault *et al.*, 2000, p. 52). Similarly, in a qualitative interview study investigating graduate and employer perspectives of employability, findings suggest that UK employers highly value graduates' abilities to apply their knowledge and skills, viewing it as an indicator of workplace readiness (Andrews and Higson, 2008). In sum, there is evidence that pre-graduate application influences employability by allowing students to develop their overall skills through real-world challenges and practice (Gabris and Mitchell, 1989).

Personal narratives. An employer-oriented personal narrative involves the transformation of a student's individual-level resources into a focused, evidence-based story framed by an employer's perception of value (Clark, 2011). A critical element of this narrative includes a centralized collection of experiences, documentation and other artifacts that build upon the experiences gained through pre-graduation applications as evidence of the acquisition or development of skills and abilities. Similar to a balanced scorecard approach for performance management to advance a firm's strategic outcomes (Bhagwat and Sharma, 2007), graduates who can display a diverse and valued range of complementary resources (capabilities) place themselves in a position above others competing for the same opportunities. Scholars and practitioners have identified a range of mediums that graduates can use to accomplish this, including e-portfolios (Ward and Moser, 2008) and LinkedIn (Peterson and Dover, 2014). In an experimental study of 64 employers, scholars isolated specific resume characteristics that influence an employer's decision to interview or not interview a candidate (Thoms *et al.*, 1999). Therefore, new graduates who can display and integrate their rare, inimitable and non-substitutable resources to a potential employer present a distinct personal narrative. In summary, the objective for new graduates is to differentiate themselves from others seeking employment in a manner that is important to, and valued by, an employer.

Conceptual model
Based on this literature review, Figure 1 incorporates a conceptual model of the dynamics capabilities view of graduate employability. To help answer the question of
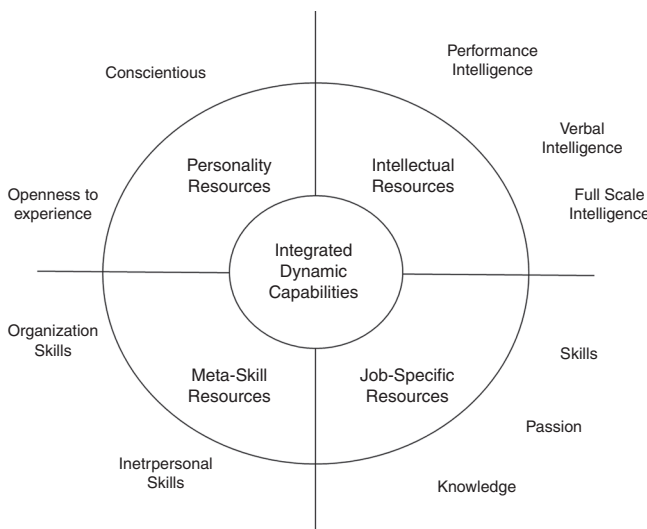
Figure 1.
A dynamics
capabilities view
of employability

how university graduates can enhance their employability, the model highlights five key research questions that are examined using qualitative methods:

RQ1. What role does intelligence play in creating a competitive advantage for university graduates?

RQ2. What role does personality play in creating a competitive advantage for university graduates?

RQ3. What role do meta-skills play in creating a competitive advantage for university graduates?

RQ4. What role do job-specific factors play in creating a competitive advantage for university graduates?

RQ5. What role do integrated DCs play in creating a competitive advantage for university graduates?

Operationalizing employability resources
Methodology
The objective of the research design is to refine the proposed conceptual model by exploring the relationship between employability resources. To do so, we pursued a qualitative research study that included twenty-six one-on-one interviews with a broad range of employers. To ensure participation by a diverse range of participants (Creswell, 2012), we engaged in purposeful sampling methods.

Three stratification criteria were used to identify candidates: first, confirmation that individuals directly hired or had significant influence on the hiring decision of new graduates; second, a broad representation of industry sectors; and third, a mix of small, medium, and large organizations. Based on these criteria, a pool of candidates was recruited through the local Chamber of Commerce and the local Human Resources Professional Association in a large western Canadian city. Table I presents individual profiles of the employers.

The interviews were standardized, semi-structured, and based on an open-ended interview protocol. This format was chosen to provide sufficient structure to explore major themes, while maximizing objectivity and ensuring spontaneous reflection on the issues (Trevino, 1986). The interview protocol used was designed not to be leading, in the sense that employees were not asked to directly comment on the four types of resources described above. Rather, the protocol explored the variables that are perceived as valuable by employers when hiring new graduates. Employers also provided details about their professional background and hiring experience.

Each interview was conducted in a private location. All interviews were digitally recorded and transcribed. To maximize objectivity, each interview was independently coded by two researchers (Strauss and Corbin, 1990). This process enabled the researchers to independently code major themes at the employer-level. The second stage of the reduction process allowed the consolidation of overlapping themes. This reduction process was done in a manner that identified the composite themes without losing the integrity of each employer's contribution (Moustakas, 1994). To mitigate this risk during the reduction process, a separate document was maintained by the researchers of all employer content removed during the analysis.

Employer	Industry	Gender	Size of organization (no. of employees)
1.	Transportation	Female	Medium (50-499)
2.	Transportation	Male	Large (500+)
3.	Recreation	Male	Medium (50-499)
4.	Hospitality	Female	Large (500+)
5.	Hospitality	Female	Small (1-49)
6.	Arts and culture	Female	Small (1-49)
7.	Arts and culture	Male	Small (1-49)
8.	Energy and utilities	Male	Small (1-49)
9.	Energy and utilities	Male	Small (1-49)
10.	Energy and utilities	Male	Large (500+)
11.	Energy and utilities	Female	Large (500+)
12.	Professional services	Female	Large (500+)
13.	Energy and utilities	Male	Large (500+)
14.	Energy and utilities	Female	Large (500+)
15.	Energy and utilities	Male	Large (500+)
16.	Energy and utilities	Female	Large (500+)
17.	Energy and utilities	Female	Large (500+)
18.	Arts and culture	Female	Small (1-49)
19.	Non-profit	Female	Large (500+)
20.	Non-profit	Male	Small (1-49)
21.	Arts and culture	Female	Medium (50-499)
22.	Arts and culture	Female	Small (1-49)
23.	Non-profit	Male	Medium (50-499)
24.	Non-profit	Female	Large (500+)
25.	Arts and culture	Male	Small (1-49)
26.	Arts and culture	Female	Small (1-49)

Table I.
Employers/
Interviewees

Results

During the first phase of the coding process, a total of 31 major themes were independently identified by the research team. The second stage consolidated these into major composite themes. These final composite themes were then linked to the research questions defined in our study. We will now review our findings at a research question-level:

RQ1. What role do intelligence resources play in contributing to the competitive advantage of university graduates?

All participants viewed intelligence as a foundational resource in any hiring process and there was a near consensus that an earned university degree is perceived as a proxy for intellectually capability. As employer 11 declared: "we only hire university graduates. The degree is an important part of the weeding process. It is table stakes". Consistent with this perspective, employer 3 stated: "If a student graduates they have hit a certain level intellectually. That is all we look for."

We followed up by examining whether employers considered academic performance as a measure of intelligence. The majority of respondents stated that academic measures, such as grade point average (GPA), played little or no role in the hiring process. In fact, those who considered academic performance perceived it as less of an indicator of intelligence and more of evidence that the candidate possessed other important characteristics, such as organization, goal-orientation and discipline. For example, employer 15 observed: "Getting a better GPA shows that you had

discipline to stick to a study plan and achieve good results." Similarly, employer 10 stated: "students learn to grow up in university, it's okay if students struggle once in a while, but what matters is how you developed and how you perform later on". Finally, employer 20 argued: "A university education is important because it shows you are driven and have a strategy."

In summary, intellectual resources are measured by an earned university degree. However, the employers interviewed in this study did not view this as a scarce resource, as all graduates possess this credential. Therefore, we conclude that intelligence is a required foundation which graduates can leverage but, unto itself, an earned degree does not offer a competitive advantage:

> *RQ2.* What role do personality resources play in contributing to the competitive advantage of university graduates?

In the interviews, personality resources emerged as an important, yet often abstract construct. Personality was often attributed as foundational to the attitudinal factors that employers defined as valuable. Previous research suggests that personality possesses stability over a lifetime, whereas attitudes are dynamic and evolve. In this regard, employers clearly differentiated personality from attitude. For example, employer 14 declared: "We look for what we call non-coachables. Things like work ethic. This typically shows through in their personality and we can't teach this". Employer 21 observed: "personal characteristics are very important. You need to be adaptable and have values in line with our organization. You need to fit in the team" and Employer 17 professed: "We are not looking at an A+ student with no social skill [...] we need to see evidence of a well-rounded person overall." Similarly, Employer 24 argued that it is important to evaluate a graduate holistically and not simply based on single dimensions such as academic performance: "Education can't be the deciding factor. Personality is highly important as well" and Employer 10 declared: "We look for intangibles like a candidate's desire to deliver [...] the drive to come up with a solution. It's hard to teach this." Finally, Employer 18 aptly sums up our finding by saying: "when it comes to this type of job, it is all about the person and how well that individual will fit in with our little family. Each play runs for months – if the people involved with that play do not get along then it shows in the performance."

In sum, personality resources, like intelligence resources, were perceived by employers as foundational. Unlike intelligence resources, however, employers do not have one proxy measure that offers evidence that new graduates have the core personality attributes to succeed. Instead, employers seek evidence that the student's personality is aligned with the organization and the job. Common sources of evidence that were identified by these employers include pre-graduate work experience, extra-curricular activities, interviews, and references:

> *RQ3.* What role do meta-skill resources play in contributing to the competitive advantage of university graduates?

In the interviews, we explored the role of two specific meta-skills: interpersonal and organizational. Meta-skills were perceived by many of the employers as an application of personality and intelligence resources. In particular, different forms of communication and the ability to work effectively with others emerged as critical. As employer 17 declared: "Social skills are an important personal characteristic as employees need to be able to interact with the clients". Similarly, employer 25 contended: "We look for communication skills, and organizational skills and a

passion for what they do. They must be teachable and learn on the job if they are to be successful here". Employer 12 raised a concern in recent graduates they have hired:

> I have seen a rapid decline in the ability of new grads to write well and be able to communicate face-to-face. Our organization runs on communication. The ability to be able to communicate face to face and write a document that can be communicated clearly to everyone is essential.

In summary, meta-skills were identified as valuable and a potential source of competitive differentiation of graduates:

> *RQ4.* What role do job-specific resources play in contributing to the competitive advantage of university graduates?

In the employer interviews, we considered three dimensions associated with job-specific resources. These included job-specific knowledge, job-specific skills and job-specific passion. Similar, to other resources, a dominant theme emerged associated with examining resources in the context of "intrinsic" vs "learned". The employers identified that job-specific knowledge and skills are learned resources. These are important and will accelerate the IDCs process associated with a graduate. In some cases, such as accounting, the existence of job-specific knowledge and skills are required credentials for a candidate. However, in the vast majority of the cases these are viewed as learned resources. Therefore, it is of a secondary consideration relative to intrinsic resources such as personality.

In contrast, job-specific passion was identified as an important antecedent of other resources. For example, a job-specific passion related to a specific industry may contribute to a graduate seeking pre-graduate experience and job-specific passion related to a specific role may drive a student to invest in specific skills through additional courses. As employer 18 stated: "Intelligence is important but not the deciding factor. We also look for attitude, passion and experience." Thus, job-specific passion is viewed as something that is intrinsic and not learned; this makes it rarer, inimitable, non-substitutable and more valuable:

> *RQ5.* What role do IDCs play in contributing to the competitive advantage of university graduates?

In this study, we examined how the previously identified resources can be recombined using IDCs through two methods. The first was exploring the importance of pre-graduate application of the aforementioned resources in real-world settings. The second was exploring how students synthesize their resources into an effective employer-driven personal narrative.

Consistent with past research, pre-graduate application is perceived as critical evidence that a student has the ability to transform intangible resources, such as intelligence, personality and meta-skills, into tangible value for employers (Finch *et al.*, 2013). In this context, evidence of pre-graduate application was viewed as a risk-mitigation strategy for the employer. As employer 6 observed: "It is preferable that they've had some experience in the industry so it's not just theoretical, they need to know the pressures and realities of working in a 9 to 5 office and priorities change throughout the day, they have to be able to roll with that." Employer 11 was concise and stated: "I will always hire on real-world experience over education; co-op programs are far more important and contribute to experience." Similarly, employer 8 declared: "book learning is not sufficient; I will only hire a graduate that has combined their education with real work experience."

The second theme associated with the importance of the effective positioning of the personal narrative emerged from the interviews. For example, employer 5 stated; "resumes can all look the same, they need to show me how they are different. Most don't". Similarly, employer 9 observed: "resumes are critical. I see some very poorly put together resumes. If they can't tell their own story well, how can I expect them to tell mine? " As employer 12 contended: "when we look at resumes, we seek well-rounded people. This includes a mix of academic performance, work experience, extra-curricular activities. I need to see how they are able to bring this all together."

In addition, our findings indicate that employers are especially interested in graduates who have developed the ability to integrate and reuse key resources. This is demonstrated by the emphasis employers put on the demonstration that students have started developing this ability through pre-application integration exercises, such as internship or co-op experiences.

Discussion

It has long been argued in strategic management research that competitive advantage is achieved by the ability to reconfigure and alter the systematic interaction of components (Barney and Clark, 2007; Porter, 2008; Teece *et al.*, 1997). In this study, we argue that these same conditions exist for university students today. We use DC as a theoretical framework to identify and explore the resource drivers of university graduates' employability. In particular, our study identified the importance of four specific resources that university graduates should possess: intellectual; personality; meta-skill; and job-specific. In addition, we suggest that IDCs are crucial for enhancing the value of these individual resources. Both pre-graduate application and the construction of personal narratives are essential signals that university graduates can mobilize individual resources in a complementary and strategic manner, in real-world settings, to create value.

Ultimately, these findings can be used to enhance the employability of university graduates, and should be considered by researchers and educators alike when reflecting on employers' hiring practices and preferences. In what follows, we address our findings and practical implications as they pertain to the employability resources we identified in our results.

Intrinsic vs learned resources

Our study suggests that the employability of university graduates is contingent upon both their intrinsic and learned resources. Intrinsic resources include intelligence and personality; however this classification could be problematic considering that employers tend not to view intelligence as a key differentiator amongst university graduates. Thus, because most university graduates possess the intelligence or personality attributes that are valued by an employer the challenge they face is to find methods to capitalize on this advantage within the recruitment process.

Similarly, within job-specific resources, passion for the industry and/or the specific role can be viewed as learned resources because passion may be amplified through an individual's exposure to an industry or specific role. And since our study suggests that passion is often perceived by employers as an intrinsic resource (i.e. a candidate demonstrates a passion for the job during the recruitment process) passion may be viewed as a source of competitive advantage for a university graduate. Consequently, those who both possess and offer evidence of a job-specific passion (Kern, 2010) are more apt to find purpose in their work and be deeply committed to achieving results which makes these graduates more valuable to employers.

In contrast, learned resources that incorporate meta-skills and job-specific elements can be learned by a university graduate. For example, interpersonal skills can be developed and refined though training (Gunderman, 2012; Riggio and Tan, 2014). Evidence suggests that university graduates are capable of learning job-specific skills and knowledge (Leaman, 2014; Almeida *et al.*, 2012) either within an educational context and/or after being hired to perform a specific role. Therefore, these job-specific resources do not necessarily, especially when taken in isolation, present a competitive advantage amongst university graduates seeking employment.

Integrated DCs
Simply possessing superior resources is not sufficient for a firm to secure a competitive advantage (Barney, 1991; Kaplan and Norton, 1996). Rather, a competitive advantage is a firm's ability to acquire, mobilize and exploit these resources (Teece *et al.*, 1997). Our findings are of importance because they parallel the results from strategic management and suggest that the ultimate success of graduates does not rest with the resources they can develop and/or acquire. Instead, what our findings show is that the most telling component of graduates' success is their ability to demonstrate that they can use and reconfigure the resources they have acquired and that they can then communicate what they have learned to the appropriate individuals. These results indicate that merely focusing on enhancing personal skills or just focusing on acquiring job-related skills is not time well spent for future graduates. We were able to show that by virtue of graduating from university, all graduates are perceived to possess similar levels of intelligence, key personality traits, engagement with the field and job-related skills. What sets students apart, what gives them a competitive advantage, is being able to gain work-related experience and then constructing a strong and coherent narrative that shows those who are making the key hiring decisions that they have the requisite skills and abilities. In other words, students who can develop and offer evidence of integrated DCs are more likely to experience enhanced employability upon graduation.

Extending this finding to university graduates' employability, IDCs rely on two important components, the need to understand available resources to be reconfigured and the development of a pattern of practice and repetition. In the university context, this means that students should seek to achieve two concurrent and related objectives. The first objective is for students to learn how to develop an ability to reconfigure personality, intellectual, meta-skill, and job-specific resources to meet employer desires and requirements. It is likely that key resources valued by employers will change over time and those who can develop IDCs during their study years will be better positioned to deliver value to employers (Gault *et al.*, 2010; Callanan and Benzing, 2004). To this end, each resource is not considered in isolation but instead, the resources are viewed as interdependent and complimentary components that serve to make up a valuable and strategic proposition – the university graduate. The second objective is for students to develop a clear understanding of the key resources they possess. Students can achieve this goal by using an iterative process to develop a personal narrative that highlights the key resources they will bring to their future employers. This process allows students to develop a thorough and clear understanding of what differentiates them from others.

**Directions for future research**
This exploratory study is of a limited scope and should be considered as a contribution to a larger research agenda. As our results suggest, the competitive advantage of a university graduate rarely occurs in isolation. Rather, the competitive advantage of

university graduates can develop out of the interaction between the four identified resources discussed previously. Our research provides support for the notion that a critical dimension of a graduate's competitive advantage is the integration of these resources through extra-curricular work experience and the development of a compelling and evidence-based personal narrative. Both areas call for further research.

As Kaplan and Norton (1996) state, effective performance management "should identify and make explicit the sequence of hypotheses about the cause-and-effect relationships between outcomes and measures and the performance drivers of those outcomes" (p. 31). Based on this, we propose that future research should examine the systematic relationship between the identified variables in this study and a graduate's employability. Figure 2 provides a conceptual model that could act as a foundation for a future study.

Below a series of potential hypotheses that could be tested in this study:

H1. Intellectual resources, although intrinsic, are assumed by employers and therefore do not provide competitive advantage when comparing university graduates.

H2a. Conscientiousness is valued by employers and therefore provides competitive advantage when comparing university graduates.

H2b. Openness to new experience is valued by employers and therefore provides competitive advantage when comparing university graduates.

H3a. Interpersonal resources are learned, and when considered in isolation, are not valued by employers and therefore do not provide competitive advantage when comparing university graduates.

H3b. Organization resources are learned, and when considered in isolation, are not valued by employers and therefore do not provide competitive advantage when comparing university graduates.

H4a. Job-specific knowledge is learned, and when considered in isolation, is not valued by employers and therefore do not provide competitive advantage when comparing university graduates.
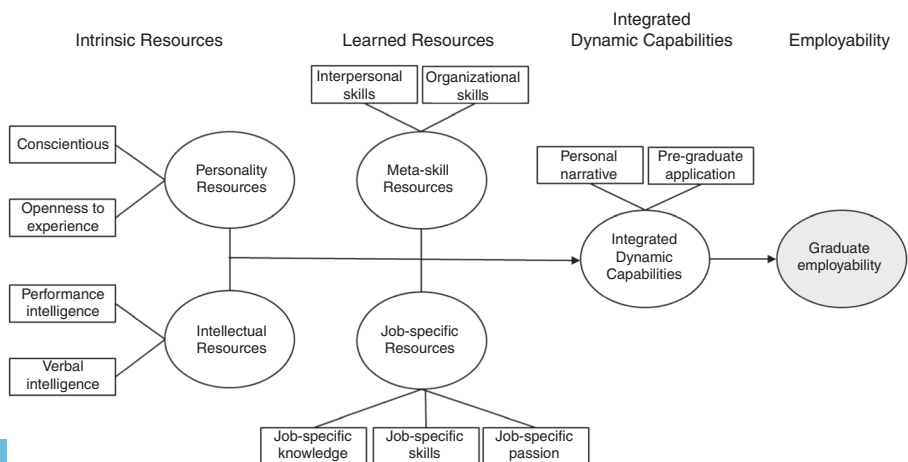
Figure 2.
Future research: a dynamic capabilities view of graduate employability

H4b. Job-specific skills are learned, and when considered in isolation, are not valued by employers and therefore do not provide competitive advantage when comparing university graduates.

H4c. Job-specific passion is intrinsic and valued by employers and therefore provides competitive advantage when comparing university graduates.

H5a. Evidence of pre-graduate application is valued by employers and provides competitive advantage to university graduates.

H5b. The effective integration of intelligence, personality, meta-skills, and job-specific resources into a targeted personal narrative is valued by employers and provides competitive advantage to university graduates.

Second, this study identified the importance of pre-graduate work experience and personal narrative. Future research could follow the design of Thoms *et al.* (1999) and test the influence of personal narrative on employer judgments by using experimental methods.

Limitations

We would be remiss not to acknowledge some limitations of the current study. This study was exploratory in nature. Though we partnered with the Chamber of Commerce and the Human Resources Professional Association in a large western Canadian city, which allowed us to obtain a fairly large and diverse sample of employers, the industry sectors were not completely representative of the region. Also, while employers' perceptions are particularly important for many university graduates, we acknowledge that employability is only one of the many goals of most undergraduate university programs. As such, findings from this work serve to address only one of the desired outcomes from higher education.

The DC and RBV perspectives are theoretical frameworks that have been mostly applied to the organization level of analysis. We believe this study demonstrates the potential of applying the principles central to the individual-level. This is supported by institutional scholars who have advocated for increased focus on the individual, as they collectively influence the norms, laws, and cognitive categories of a social system and represent a bottom-up component of institutional research (Bitektine, 2011; Tost, 2011). Moreover, prominent research grants considerable weight to the individual role played by top managers in developing DCs within organizations. Therefore, we believe it appropriate to study individual behaviors through the DC lens.

Conclusion

Given the increasing enrollment in post-secondary institutions and the difficulty these graduates experience in securing appropriate employment, further exploration and understanding of how university graduates can be competitive during the recruitment and selection process is warranted. Financial costs for employers based upon poor recruitment choices further support the criticality of this work. Based on this qualitative study that included interview data from 26 employers of university graduates, we demonstrated that competitive advantage in the labor market is a complex interaction between intrinsic and learned resources. By better understanding the value employers place on employability resources and how they empirically interact, schools can better design curricula based on the development of key skills that employers desire, and assist students to develop tools and mechanisms to display pre-graduate, real-world experience and the capacity for ongoing adjustment and

integration of resources into a personal narrative that is valued by employers. Through the DCs perspective, university graduates can better position themselves in the labor market in order to acquire their desired employment opportunities. Further research is required to guide post-secondary institutions and their students regarding the provision of pragmatic and valuable educational opportunities and experiences and the operationalization of these into successful job search activities and outcomes.

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