

Enhancing perceived employability through work-integrated learning

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Internal and
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Abstract

Purpose – Embedded in higher educational settings, work-integrated learning (WIL) is a key reflection to students' perceived employability. The purpose of this study is to explore the antecedents of internal and external perceived employability. The research attempts to test a theoretical model examining the relationships among human capital, work values, career self-management, internal perceived employability and external perceived employability.

Design/methodology/approach – Data were collected from 588 students who have internship experience from two self-financing higher education institutions in Hong Kong. We adopted structural equation modelling (SEM) to test the proposed research hypotheses.

Findings – Results support the idea that human capital and intrinsic work values are significant antecedents of perceived employability. Furthermore, this relationship is fully mediated by career self-management. The implications of the findings for understanding the process through which psychological variables affect an individual's perceived employability are discussed.

Originality/value – Previous studies have extensively examined the effectiveness of WIL in increasing graduates' employability. However, unclear focus has been given to examine psychological attributes, such as human capital, work values and career self-management in WIL. In addition, few researchers have empirically examined the linkages among human capital, work values, career self-management and employability through internships or WIL experiences. Therefore, to bridge these gaps, the present study examines the effect of human capital, work values and career self-management on students' perceived employability when gaining internships or WIL experiences in a higher education setting.

Keywords Structural equation modelling, Psychological attributes, External perceived employability, Internal perceived employability

Paper type Research paper

Introduction

Graduates always seek better employment or career development. Meanwhile, hiring the right candidate is also important from the employer's perspective. Connecting graduates' competencies with employers' expectations is highly important on the global university agenda, as employability is one of the key drivers of university or institution outcomes. Employability is defined as "developing attributes, techniques or experience to enable a student to progress within a current career" (Harvey, 2005, p. 15). Hence, employability emerges as one of the major roles in higher education. Embedded in higher educational settings, internship opportunities and work-integrated learning (WIL) enhance the employability of fresh graduates (Fejes, 2010; Mayombe, 2021), with the goal of aiding these graduates to have a holistic development in terms of hard and soft skills improvement, global vision, goal setting, and work value enhancement (Ng *et al.*, 2021).

Numerous studies have suggested that the inclusion of WIL or internships is viewed as an integral part of the programme curriculum for the enhancement of experiential and authentic



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learning for students (Nguyen *et al.*, 2021; Seager, 2021; Jackson *et al.*, 2017). Nowadays, discipline-based knowledge alone in higher education no longer meets employers' expectation on fresh graduates (Mai, 2021). Thus, the essential elements of WIL concerning the development of a diverse range of employability skill sets of graduates (e.g. acquired employability skills) need to be revisited and reviewed to advance students' and graduates' employability, as well as to meet employers' expectations (Ng *et al.*, 2021; Pitan and Muller, 2020; Winterton and Turner, 2019). Sokhanvar *et al.* (2021) and De Vos and Soens (2008) further asserted that employability includes competence and skill, WIL experiences (e.g. human capital) and the proactive management of one's career (e.g. career self-management). The elements of skills and competences obtained from WIL are crucial to help graduates benefit from gaining ideal employment and being successful in their choice of occupations in their field or expert area.

Since the emergence of the COVID-19 pandemic, employment has become a major challenge for graduates and tertiary institutions across the globe. The pandemic has led to a global post-COVID-19 economic recession (Song and Zhou, 2020). After the World Health Organization declared COVID-19 a pandemic in March 2020, schools were closed, workers were sent home, and most of the essential services were halted. The unemployment rate in the US reached 14.7%, and more than 31 million applications for unemployment insurance were filled in March and April. The labour participation rate reached 60.2% in the US, which is the lowest rate measured since the 1970s (Elsafty and Elzeftawy, 2021).

Meanwhile, the number of unemployed civilians aged 25 or above with a bachelor's degree or higher has more than doubled over the year to 2,422,000 (US, 2021). With the limited job vacancies accompanied by the soaring number of competitors with similar education backgrounds, students graduating in 2021 could experience extreme difficulty securing jobs.

The COVID-19 recession has also left a huge impact on China. Anticipating a negative effect of the pandemic on graduates' employment rate from higher education institutions, the Chinese Ministry of Education (PRC MOE, 2020) has released a notice to urge provincial leaders and higher education institutions to place graduates' employment as their top agenda. This call includes outlining policies, such as the promotion of the use of online recruitment platforms, and encouraging graduates to take up positions in rural areas, the military and the education sector. With more than 8.7 million graduates from these institutions flooding into the job market amid the recession, the unemployment rate of the Chinese population aged between 16 and 24 rose to 19.3% (PRC MOE, 2020; Zeng, 2020).

The full recovery of the economy from the COVID-19 recession remains uncertain. In the meantime, the competition in the labour market remains intense for higher education graduates. WIL is expected to play a significant role in the post-pandemic period for students receiving higher education or professional qualifications, as their potential employers would be looking for more competitive employees who have already possessed comprehensive skills to carry out their job duties.

Previous studies have extensively examined the effectiveness of WIL in increasing graduates' employability (Ng *et al.*, 2021; Ma and Bennett, 2021; Lam and Tang, 2021). However, unclear focus has been given to examine psychological attributes, such as human capital, work values and career self-management in WIL. Limited studies have been conducted to conceptualise and operationalise these psychological attributes in enhancing the perceived employability of students. In addition, few researchers have empirically examined the linkages among human capital, work values, career self-management and employability through internships or WIL experiences. Therefore, to bridge these gaps, the present study examines the effect of human capital, work values and career self-management on students' perceived employability when gaining internships or WIL experiences in a higher education setting.

Hong Kong's higher education context

Undergraduates in the challenging work environment need to work with diverse and often complex tasks [Oguro and Mueller \(2020\)](#). Responding to the ever-changing environment, upgrading educational qualifications and obtaining professional development are essential to secure an ideal employment opportunity. To meet the needs of becoming a knowledge-based society, the Hong Kong government recommended an education reform in 2000 to increase the number of accredited post-secondary programmes to be offered by self-financing tertiary institutions ([Education Bureau Hong Kong, 2013](#)). To date, 29 self-financing tertiary institutions are in operation, and these institutions offer a wide range of self-financing continuing and professional education in different areas (e.g. business and hospitality management, smart tourism, digital marketing, etc.) and various levels to cater to the needs of lifelong learners in the workforce ([iPASS, 2021](#)).

Graduate employability in the context of Hong Kong

As one of the key drivers or measures of institutional outcomes, the employability of graduates is becoming increasingly critical for different stakeholders, including the government, employers and education ([Clarke, 2018](#); [Verma et al., 2018](#)). To boost employability and employment rates, the inclusion of WIL programmes (i.e. internships, placements or co-ops) embedded in the programme curriculum inevitably allows students to learn from the outside world and contribute to the industry and/or community at the same time. WIL in higher education refers to learning in the workplace, including internships, practicums, industry projects, cooperative education, placements and related practices ([Ng et al., 2021](#)). Some professional subjects have practicum elements in the curriculum, such as electrical engineering, mechanical engineering, surveying and nursing. The trend moves to some other traditional business and hospitality programmes. As part of graduation requirements, students are required to satisfy the stated objectives of WIL. This type of WIL is particularly available to students in business, marketing, hospitality and tourism fields. Most employers prefer hiring potential graduates with industry exposure and knowledge as well as hands-on field experience. As Hong Kong is a well-developed city with an international business environment, it has profound advantages for students to have the internship experience and skills before setting a stable career management path for themselves ([Lam and Tang, 2021](#)). Hence, such internship experiences in the curriculum become one of the strengths of self-financing institutions and publicly funded universities.

Statistics have shown that the employability percentage of graduates is positively related to WIL experiences. For example, graduates' employability percentage (i.e. the percentage of graduates being employed six months after graduation) in 2019 from three universities, one private university and one continuing education institution in Hong Kong, namely, University of Hong Kong (HKU), Hong Kong University of Science and Technology (HKUST), Hong Kong Polytechnic University (PolyU), Hang Seng University of Hong Kong (HSUHK) and School of Professional Education and Executive Development (SPEED), are 98.7%, 94.6%, 92.2%, 75% and 88.9%, respectively. These percentages demonstrate the importance of employability and employment rate through the inclusion of WIL in the programme curricula for better employment of graduates.

Perceived employability

To understand employability, two approaches can be adopted: objective and subjective approaches ([Ma and Bennett, 2021](#)). The objective employability approach focuses on the direct indicators of individuals' employment outcomes, universities' performance and employers' practice, which can be operationalised as job offers, employment status and

quality of employment (Okay-Somerville and Scholarios, 2017). Subjective employability approach emphasises an individual's perception and subjective evaluation of his or her possibilities of obtaining and maintaining employment (Vanhercke *et al.*, 2014). Thus, this study has adopted a subjective approach based on students' self-perception (i.e. perceived employability) in gaining and securing employment (Veld *et al.*, 2015; Clarke, 2018).

Employability has drawn the attention of many scholars over years. However, perceived employability has only become the subject of various studies recently, particularly in the context of graduates of higher education institutions. During turbulent economic situations, such as the COVID-19 recession, the effect of perceived employability becomes more evident; that is, when an individual perceives that he or she is employable, he or she feels less insecure in their career (De Cuyper *et al.*, 2008; Okay-Somerville and Scholarios, 2017).

Internal perceived employability and external perceived employability

Perceived employability can be categorised into internal perceived employability and external perceived employability. On the one hand, internal perceived employability emphasises a student's own academic performance, skills and abilities to get a job, focusing more on the student's personal psychological attributes (Baluku *et al.*, 2021). This type of employability is reflected in students' perception of skills and abilities, academic performance, ambition, etc. (Rothwell *et al.*, 2008). On the other hand, external perceived employability refers to the evaluation of external factors, including university reputation, demand of degree qualification and labour market conditions and demand of profession in the labour market (Baluku *et al.*, 2021). Vanhercke *et al.* (2014) and Van der Heijden *et al.* (2019) categorised factors affecting perceived employability into personal factors (i.e. internal) and contextual factors (i.e. external). They also highlighted that through WIL, students can apply what they have learnt from the classrooms and identify what skills they lack. This acquisition of knowledge helps them set their later courses for skills development, altogether enhancing perceived employability (Van der Heijden *et al.*, 2019).

Regarding the impact of perceived employability on graduates, Qenani *et al.* (2014) suggested that perceived employability could be critical to employment. Stressing the importance of perceived employability to graduates, they believed that new graduates would be more convincing in making their potential employers believe that they were more capable when they had high perceived employability (Qenani *et al.*, 2014; Pool and Sewell, 2007). In their research on the relationship between perceived employability and work volition, Cheung *et al.* (2020) also found that students in the US and Hong Kong who perceive higher employability think of themselves as having better control and more confidence in the process of seeking their ideal jobs. Thus, the present study examines the internal and external perceived employability of students.

Framework and hypotheses

Perceived employability has been summarised as a composite of three interrelated predictors, namely, (1) career self-management, (2) human capital and (3) work values (Clarke, 2018; Ma and Bennett, 2021; Santos *et al.*, 2020). Drawing on the conceptual framework provided by Clarke (2018), we develop nine hypotheses that are empirically tested using structural equation modelling (SEM).

Career self-management

Self-management skills and career building skills form the basis of career self-management. Self-management skills are related to career identity. Krouwel *et al.* (2020) suggested that career self-management is an effective enabler for incorporating employability development.

According to King (2004), career self-management should be regarded as behaviour instead of strategy. She further categorised them into positioning behaviours, influence behaviours and boundary management. Other studies have already identified various antecedents to career self-management. Sturges *et al.* (2010) categorised them into career variables, organisational variables and individual variables. Career variables are mainly concerned with how one would like to develop one's career, while organisational variables focus on the support from employers (Sturges *et al.*, 2010). An example of a career variable is people staying at home due to the COVID-19 pandemic and participating in online craft learning out of their fear of losing their jobs (Chen, 2020). Training, career counselling and mentoring provided by the employer can be seen as examples of organisational variables which would promote career self-management (Yogalakshmi and Suganthi, 2020).

Meanwhile, individual variables are mainly concerned with personality traits and gender (Sturges *et al.*, 2010). For instance, Chiaburu *et al.* (2006) addressed that proactivity was a predictor of students' career self-management behaviours (i.e. proactive students perform more career self-management behaviours). A recent study from Abdalla and Al-Zufairi (2020) added self-efficacy as another antecedent to career self-management.

Human capital and career self-management

According to human capital theory (Sweetland, 1996), investing money on education increases the productivity and efficiency of individuals, which, in turn, derives economic value when they enter the job market. Through investment in education, individuals can learn both hard and soft skills. WIL undoubtedly provides an opportunity for students to develop human capital. Human capital in this study entails soft skills, competence and WIL experiences, including critical thinking, problem-solving, teamwork, oral communication, career-building and time management skills (Szeto *et al.*, 2021; Tomlinson, 2017). These skills can be useful and practical in future jobs after graduation.

Employers usually look for potential graduates who are more ready to take up the job duties that best fit the company. Chhinzer and Russo (2017) identified various quality factors that employers looked for in graduating students, including soft skills, problem-solving skills and generic skills. However, not every student naturally possesses these skills. The lack of human capital (such as generic, interpersonal and communication skills) confuses students in developing their career goals or future career decisions (Benati and Fischer, 2020). Despite how much effort higher education institutions have exerted in equipping their students with the skills expected from their potential employers, some features are unique to internship, such as realising personal career objectives, establishing career goals and developing career aspirations, which are related to the management of one's self and career (De vor and Soens, 2008).

In some universities in the UK, a one-year internship programme was introduced into the year before the last year of the engineering curriculum in the late 19th century; this programme soon spread to other curricula as well (Auburn, 2007). Despite a few negative aspects experienced during internship, Auburn (2007) reported that students were aware that they had learnt relevant skills and career self-management from their internship. Knowing that their internship experience would eventually be what their future employers would be looking for, students believed that internships promote career self-management and perceived employability. In contrast, Pinto and Pereira (2019) compared perceived employability among students who had participated in either domestic or international business internships; they found that students perceived lower employability or lowered career attitude if they had never undergone an internship. Hence, the following hypothesis is proposed.

H1. Human capital is positively related to career self-management.

Work values and career self-management

Work values are motivational beliefs which can be intrinsic and extrinsic, and they influence long-term career choices and employability (Llenares *et al.*, 2021). In the career context, work values are defined as “motivational beliefs that serve as criteria or orientations for assessing jobs and work environments” (Busque-Carrier *et al.*, 2021, p. 2). Work values enable employees’ attitude, standard and behaviour in the workplace through deeply rooted motivations (Basinska and Daderman, 2019). The concept of intrinsic work values was developed on the basis of the intrinsic motivation in self-determination theory (Papavasileiou *et al.*, 2017). The intrinsic work value is focused on the direction of skill use opportunities, the enjoyment gained from pursuing the job and self-direction. Individuals seek jobs that are interesting and have relatively more autonomy and learning opportunities. This type of motivation encourages people to self-manage their careers proactively (Quigley and Tymon, 2006). Chi *et al.* (2019) emphasised that an individual’s work values facilitate career exploration, career readiness and career decision. If an individual pursues a job that satisfies his or her career interests, the individual will manage his or her career more easily, thus enhancing career-related performance. The following is hypothesised:

H2. Intrinsic work values are positively related to career self-management.

In contrast, reward work values and security work values should be classified as extrinsic work values, the concept of which was developed under the influence of self-determination theory’s idea of extrinsic motivation. According to Gagné and Deci (2005), central to the idea of extrinsic motivation is the instrumentality between the work task and the satisfaction from whatever else but the work task itself. Reward work values are considered monetary rewards, chance of promotion and higher work status, etc. Security values indicate that individuals seek stable and safe working environment and avoid any unexpected situations (Leikas *et al.*, 2009). Moreover, Hirschi (2010) examined both intrinsic and extrinsic work values of adolescent and revealed that extrinsic work values are not positively related to career development among college and high school students. Extrinsic work values do not predict person-job fit, whereas it predicts perceived employability (Sortheix *et al.*, 2015). When the level of an individual’s extrinsic work values is high, he or she is highly likely to look for a job with higher pay, higher chance of promotion and higher work status. Thus, the individual will carefully evaluate the reputation of the university where he or she is studying, market demand situation and the profession required in the labour market (Baluku *et al.*, 2021). Therefore, we propose the following:

H3. Extrinsic work values are related to external perceived employability.

Career self-management and perceived employability

Career self-management is closely related to the employability of students from higher education institutions. Firstly, competencies in career self-management are positively related to perceived employability of university students (Jackson and Wilton, 2017). Having this similar finding, Pinto *et al.* (2015) further suggested that career self-management can promote gains from career exploration. In addition, Weng and McElroy (2010) discovered that people who engage more in career self-management have higher job decision effectiveness. In other words, students with careful career self-management can make effective decisions on where their career should be heading. Furthermore, Ma and Bennett (2021) examined the relationship between career management and perceived employability in the context of China. The study of Ma and Bennett (2021) and Santos *et al.* (2020) revealed that career self-management is an effective predictor of perceived employability (both internal and external perceived employability).

H4a. Career self-management is positively related to internal perceived employability.

H4b. Career self-management is positively related to external perceived employability.

Career self-management as a mediator

Career self-management can act as a mediator, which enables an individual to have a clear understanding about himself or herself to make informed decisions about how his and her own human capital (i.e. attributes, capabilities) and intrinsic values (i.e. attitudes and beliefs) aid in the development of his or her internal and external perceived employability (Jackson and Wilton, 2017). Yogalakshmi and Suganthi (2020) investigated the relationship between perceived organisational support and psychological empowerment on affective commitment. Their study (2020) revealed that career self-management mediates the relationship between perceived organisational support and psychological empowerment. Moreover, Santos *et al.* (2020) used career self-management to mediate the relationship between career attitude and perceived employability (both internal and external) in the higher education context. Similarly, in this study, career self-management plays a mediating role. Hence, the following hypotheses are proposed.

- H5. Career self-management mediates the relationship between (a) human capital and internal perceived employability; (b) human capital and external perceived employability.
- H6. Career self-management mediates the relationship between (a) intrinsic work values and internal perceived employability; (b) intrinsic work values and external perceived employability

Research model

The objective of this study is to explore the antecedents of internal and external perceived employability. On the basis of the above literature, the research model is presented in Figure 1.

Methodology

The research design, measures and data analysis are discussed in this section.

Research design

This research comprises a cross-sectional study from self-financing institutions in Hong Kong to examine the antecedents of perceived employability. The study was conducted

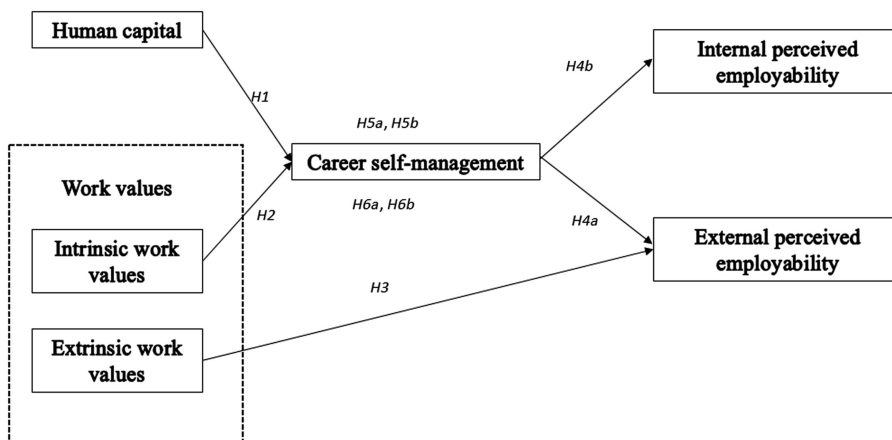


Figure 1.
The research model

through a quantitative survey method. Respondents in this study were current graduating students (i.e. one semester near graduating) who completed internships of over 300 h, which are normal hours for WIL practices to be eligible for graduation. The students were from different programmes, such as business, hospitality, tourism, marketing and data science, of two self-financing institutions in Hong Kong. These institutions were selected because they had the largest student enrolment among all the self-financing institutions in Hong Kong. To recruit the respondents, we contacted programme leaders and respective subject lecturers. We then sent a recruitment advertisement to students during their lessons. With respondents' informed consent, they were asked to complete an online questionnaire. Data were then collected between February and June 2021 during the COVID-19 pandemic through an online questionnaire survey.

Respondent profile

Of the 656 students who consented to participate in our study, 68 incomplete questionnaires were discarded. The final data ($n = 588$) resulted in a 89.6% response rate for data analysis. In particular, 43% of respondents were male students, and 57% were female students. All respondents had over 300 h of WIL or internship practices (See [Table 1](#)).

Measures

The questionnaire consisted of two sections. Section A consisted of question items on human capital, work values, career self-management and perceived employability, while Section B consisted of demographic questions. All variables in the questionnaire are listed below.

The hypotheses of the research model were tested by measurement items adopted from prior studies (See [Table 2](#)). The items were measured using a five-point scale (1 = strongly disagree; 5 = strongly agree) to indicate the level of agreement. Perceived internal (IPE) and external employability (EPE) were measured using items adapted from [Roth et al. \(2008\)](#), [Wittekind et al. \(2010\)](#) and [Santos et al. \(2020\)](#). Intrinsic (IWV) and extrinsic work values (EWV) were measured using items adapted from [Sortheix et al. \(2015\)](#). Human capital (HC) was measured using items adapted from [Devadason et al. \(2010\)](#) and [Szeto et al. \(2021\)](#). Lastly, career self-management (CSM) was measured using items adapted from [Sturges et al. \(2010\)](#).

Data analysis

Partial least squares structural equation modelling (PLS-SEM) was employed in this study using Smart-PLS v.3.3.3. ([Ringle et al., 2015](#)). to test the research model. Given that the study

Characteristics	Frequency	Percentage (%)
<i>Gender</i>		
Male	253	43.0
Female	335	57.0
<i>Degree of study</i>		
Marketing	125	21.3
Finance	42	7.1
Business Management	118	20.1
Human Resources	58	9.9
Hospitality	102	17.3
Tourism	111	18.9
Data Science	32	5.4

Table 1.
Characteristics of the
samples ($n = 588$)

Scale and items	Loadings	CR	AVE	Internal and external perceived employability
<i>Human capital (HC)</i>		0.933	0.736	567
HC1	0.809			
HC2	0.851			
HC3	0.853			
HC4	0.905			
HC5	0.868			
<i>Intrinsic work values (IWV)</i>		0.835	0.505	
IWV1	0.726			
IWV2	0.716			
IWV3	0.755			
IWV4	0.757			
IWV5	0.755			
<i>Extrinsic work values (EWV)</i>		0.799	0.502	
EWV1	0.726			
EWV2	0.716			
EWV3	0.757			
EWV4	0.755			
<i>Career self-management (CSM)</i>		0.887	0.662	
CSM1	0.835			
CSM2	0.799			
CSM3	0.791			
CSM4	0.829			
<i>Internal perceived employability (IPE)</i>		0.889	0.668	
IPE1	0.737			
IPE2	0.839			
IPE3	0.830			
IPE4	0.858			
<i>External perceived employability (EPE)</i>		0.917	0.735	
EPE1	0.910			
EPE2	0.904			
EPE3	0.885			
EPE4	0.714			

Table 2.
Reliability and validity

aimed to predict proposed constructs in a research model, PLS-SEM was a suitable choice. Notably, PLS-SEM has been extensively applied to other employability and higher education studies (Santos *et al.*, 2020; Ng *et al.*, 2020, 2021) to perform data analysis.

Measurement model. To establish a measurement model, the reliability and validity were examined (Table 2). Loadings, composite reliability (CR) and average variance extracted (AVE) were used to check outer loadings of all measurement items, the level of reliability and convergent validity of the measurement items. According to Hair *et al.* (2017), the values of outer loadings, CR and AVE should exceed 0.699, 0.70 and 0.50, respectively, to support the reliability and validity of the research model. Then, discriminant validity was assessed using heterotrait-monotrait (HTMT) ratio. As suggested by Henseler *et al.* (Chin, 1998; Hair *et al.*, 2017; Henseler *et al.*, 2015; Ringle *et al.*, 2015), the HTMT ratio should be smaller than the threshold value of 0.90, thus confirming the discriminant validity of this study (Table 3).

Structural model. We tested the structural model using 5,000 bootstrapping resample approach to analyse the significance of paths between the constructs in this study. As presented in Table 4, the results fully supported the nine hypotheses, including the mediating role of career self-management. The impact of human capital ($\beta = 0.612, p = 0.000$) and intrinsic work values ($\beta = 0.113, p = 0.001$) on career self-management were positive and significant, thus supporting H1 and H2. Likewise, the impact of extrinsic work values on external perceived employability ($\beta = 0.065, p = 0.1$) was not significant, thus rejecting H3.

Table 3.
Discriminant validity
of measurement model
– based on the
HTMT ratio

	Career self- management	External perceived employability	Extrinsic work values	Human capital	Internal perceived employability	Intrinsic work values
Career self- management	0.823					
External perceived employability	0.301	0.233				
Extrinsic work values	0.743	0.687	0.260			
Human capital	0.636	0.721	0.161	0.477		
Internal perceived employability	0.323	0.313	0.495	0.292	0.243	
Intrinsic work values						

Table 4.
Summary of PLS-SEM
path analysis

Path	Hypothesis	Path coefficients	<i>t</i> -statistics	<i>p</i> -values
Human capital → career self-management	H1	0.621	14.074	0.000***
Intrinsic work values → career self-management	H2	0.113	3.325	0.001**
Extrinsic work values → external perceived employability	H3	0.065	1.644	0.100
Career self-management → internal perceived employability	H4a	0.533	10.990	0.000***
Career self-management → external perceived employability	H4b	0.704	18.424	0.000***
Human capital → career self-management → internal perceived employability	H5a	0.331	6.949	0.000***
Human capital → career self-management → external perceived employability	H5b	0.437	8.807	0.000***
Intrinsic work values → career self- management → internal perceived employability	H6a	0.060	3.294	0.001**
Intrinsic work values → career self- management → external perceived employability	H6b	0.080	3.371	0.001**

Note(s): ***p* < 0.01; ****p* < 0.001

Regarding the relationship of career self-management and perceived employability, the impact of career self-management on internal perceived employability ($\beta = 0.533$, $p = 0.000$) and external perceived employability ($\beta = 0.704$, $p = 0.000$) was positive and significant. Thus, H4a and H4b were supported.

We considered four mediation effects: the mediating role of career self-management in human capital and internal perceived employability (H5a); the mediating role of career self-management in human capital and external perceived employability (H5b); the mediating role of career self-management in intrinsic work values and internal perceived employability (H6a); and the mediating role of career self-management in intrinsic work values and external perceived employability (H6b). The results (Table 4) indicate that all mediation effects were significant. Specifically, career self-management fully mediated human capital and internal perceived employability ($\beta = 0.331$, $p = 0.000$), human capital and external perceived employability ($\beta = 0.437$, $p = 0.000$), intrinsic work values and internal perceived

employability ($\beta = 0.060, p = 0.001$) and intrinsic work values and external perceived employability ($\beta = 0.080, p = 0.001$). Given the mediating outcomes, we conclude that H5a, H5b, H6a and H6b were supported.

The explanatory power of the research model was evaluated by R^2 values (Figure 2). The R^2 value for career-self management ($R^2 = 0.435$), internal perceived employability ($R^2 = 0.284$) and external perceived employability ($R^2 = 0.498$) were greater than the recommended benchmark of 0.10 (Chin, 1998), thus affirming that the endogenous constructs were effectively explained by exogenous constructs in this research model.

Discussion

Internship experience or WIL is a key reflection to students' perceived employability in the higher education context. This study empirically examined the relationship between human capital, social capital, career self-management and work values and perceived employability. Following the empirical results, the proposed research model demonstrated a good explanatory power to predict perceived employability. To boost employability, this study found that the role of human capital is critical, especially in improving critical thinking, problem solving, teamwork, oral communication and time management skills. Moreover, the findings are consistent with the idea of Clarke (2018) and Ma and Bennett (2021) that soft skills development and WIL have emerged as important aspects of students' career capital. In line with Ng et al. (2021), critical thinking, problem-solving and communication skills have had a significant impact on students' employability skills. Critical thinking, problem-solving and effective communication are learning outcomes highly valued by higher education institutions and the labour market (Erikson and Erikson, 2019). In addition, teamwork and time management have emerged as vital for students' employment outcomes. Group projects in higher education encourages deep learning and the development of specific skills, such as teamwork and time management (Millis, 2003).

Surprisingly, extrinsic work values did not predict external employability in this study. Students may feel less competitive in the labour market, as they are studying at self-financing higher education institutions, which are regarded as second tier compared with publicly

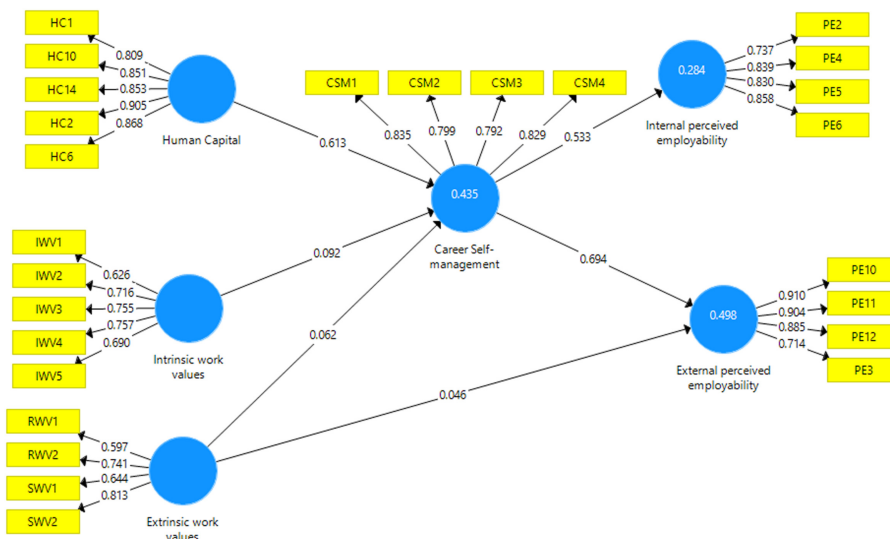


Figure 2. PLS path model

funded universities (Wong *et al.*, 2017). Thus, this factor may have decreased their self-confidence and self-efficacy in self-perceived employability (Qenani *et al.*, 2014). Therefore, students from self-financing institutions have less confidence in their employability.

Furthermore, perceived employability is affected by the career self-management of students. According to Jackson and Tomlinson (2020), students with high levels of perceived employability are likely to display more positive career planning behaviour. We found a similar positive relationship between career self-management and perceived employability. The findings support the idea from Clarke (2018) that career self-management is significant and should not be omitted in graduate employability. In addition, the findings are aligned with Jenkins's (2001) idea that students' poor perception and image embed some difficulty in attracting or recruiting potential individuals to enter the industry. Thus, a better understanding on the perception and work intention of the student group is preferred, especially from their internship stage. Higher education institutions can develop activities or talks (e.g. career goal development, setting your career goals, strategies to achieve your career goals, etc.) for students to help them to develop and manage their career expectations before graduation.

Regarding work values, Li *et al.* (2008) identified the antecedents as age, education, position and gender. Among these antecedents, education seems to be the only antecedent that can be altered. Li *et al.* (2008) indicated that students with a higher education level have higher work values. Thus, higher education institutions should encourage students to advance their studies, especially from the diploma level to the degree level, to enhance their job values. Monetary support may be included in the form of scholarship, especially for students who are not from privileged families and have weaker aspirations to advance their education (Sortheix *et al.*, 2015).

Practically, career self-management is an important enabler in enhancing employability during the internship experience of university students. As aforementioned, career self-management has three kinds of antecedents, namely, career variables, organisational variables and individual variables (Sturges *et al.*, 2010). The challenge faced by higher education institutions is that students are, above all, not employees of the institutions. Unlike in an employer-employee relationship where employers can assume that employees are more or less concerned about their career, universities cannot assume that their students are concerned with their future. Individual variables, such as students' proactivity, seem to be more critical in enhancing their career self-management. Nevertheless, institutions can increase career resilience by supporting students' skill development (e.g. organising workshops) and rewarding them (e.g. scholarship) to increase career resilience.

This study contributes to the literature on employability in the continuing education context. We theoretically expand the understanding of perceived employability by recognising the roles of human capital, work values and career self-management. Hence, practical implications are suggested in this study. Firstly, to strengthen the employability of students, higher education institutions should embed work values and career self-management within internship programmes to enhance students' employability further. For example, finding mentors for students can help them have a more in-depth understanding of the industry through their internships (Wan *et al.*, 2021). Students should also take initiatives to understand and learn whatever challenge they may find during their internship. To manage their career, students should set clear short-term and long-term goals to measure the impact and effectiveness of the internship programmes. By collaborating and engaging with employers, institutions can organise career talks by inviting potential employers (Ng *et al.*, 2021). These employers can explain job descriptions with career opportunities on potential internship positions. Through career talks, students can build contacts with employers in areas where they would like to work. This networking can enhance students' career building skills to equip themselves for career success.

Secondly, when designing internship programmes, higher education institutions can develop a comprehensive WIL platform with a corresponding integrated assessment approach and guidance on preparing effective learning outcomes. For instance, institutions can develop online WIL systems that provide clear job specification and prospects on co-opt, intern positions for students to apply easily. In addition, institutions can assess students' internship experience, such as through reflective statements (Sarkar *et al.*, 2020), to determine whether students have achieved the learning outcomes (e.g. critical thinking, problem-solving and communication skills).

Considering that most students in higher education institutions rarely undergo internships (usually, students only have internships once or twice during their four-year study period), school management teams should take every factor that can help students maximise what can be gained from the experience into account. We suggest that higher education institutions, in addition to promoting internship experience among their students, investigate how to enhance human capital, work values and career self-management. In particular, the organisation can intervene in career self-management (Sturges *et al.*, 2010). School management teams and programme leaders can contemplate and devise more comprehensive internship or placement programmes for students, such as incorporating the elements of work values and career self-management into the WIL with the goal of enhancing perceived employability.

Further research areas

This study has some limitations for further research. Firstly, our sample was restricted to students in continuing education in Hong Kong. Hence, future research can consider other countries for comparison. Secondly, a longitudinal study would be considered to examine the difference of perceived employability before and after the internship or WIL. In such examination, perceived employability is expected to increase after the WIL. Thirdly, the respondents are from two self-financing institutions. Thus, the question arises on the possible findings of a similar study within the context of other public funded universities. Finally, gender is also a possible moderator, which begs the question on whether male graduates have higher internal perceived employability and external perceived employability than females.

Conclusion

The present study explores the antecedents of perceived employability in the higher education context. The relationship among human capital, work values, career self-management and perceived employability during the internship of students in self-financing institutions has been examined. A research model has been developed, and it has subsequently revealed that work values and career self-management are important predictors in enhancing perceived employability. Hence, this study confirms that a higher level of human capital and higher intrinsic work values strengthen the relationship between the career self-management and perceived employability of students.

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