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PERCEIVED IMPORTANCE OF PORTFOLIOS IN A SMART CV AFTER AN EDUCATION REFORM: AN EMPIRICAL ANALYSIS

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Abstract

Recent developments in recruitment processes have demonstrated that job applicants are increasingly using online Smart CVs instead of traditional approaches like hardcopy or emailing CVs. This study aims at examining perceived importance university undergraduate students of Hong Kong place or put on portfolios of Smart CVs, such as internship experience, exchange experience, scholarships & awards, participation in competitions, academic performance, and extra-curricular activities when building a Smart CV, and on investigating potential effects of the 3+3+4 academic reform in Hong Kong and admission mode. Participants were 256 undergraduate students in BBA majoring either in Information Management or in Electronic Commerce. A survey consisting of 44 items, which measured perceptions on the importance of the 6 proposed portfolios of Smart CVs, was used to collect data. Principal component analysis was used to analyze the items and 34 items were included in the final factor structure out of which 27 items got retained after subsequent reliability analysis. The 6 portfolios were positively inter-correlated. Students who were admitted under the new 4-year undergraduate curriculum using examination results of the new Hong Kong Diploma of Secondary Education (HKDSE) perceived internship experience and participation in competitions as more important in their Smart CVs, which was not the case with those who were admitted under the 3-year undergraduate curriculum using the results of the Hong Kong Advanced Level Examination (HKALE), which is no longer in use since 2012. The admission routes of students did not affect perceived importance in a Smart CV of the 6 proposed portfolios.

1   INTRODUCTION

Career planning for undergraduate students is always a challenging task (Gati *et al.* 2011). Guiding undergraduate students towards career development often poses challenges at the programme, department, or university level (Cheung *et al.* 2012). The new 4-year undergraduate curriculum implemented under the 3+3+4 academic reform has brought significant challenges in Career development for undergraduate students in Hong Kong (Finkelstein and Walker 2008). Compared to students admitted under the previous 3-year undergraduate curriculum, students admitted to follow the 4-year undergraduate curriculum need to choose their studies of major in the first year in university and have to plan their career paths at a younger stage.

Regardless of the major, undergraduate students may obtain various types of individual achievements and attributes during their university life and those portfolios contribute to better career planning and CV building (Barr and McNeilly 2002). Previous research has sought to identify factors that influence the employability of undergraduate students (Finch *et al.* 2013). It has been found that apart from academic performance (Roth *et al.* 1996; Roth and Clarke 1998), international exchange experience (Di Pietro and Page 2008; Norris and Gillespie 2009), scholarships (Brown and Campion 1994; Hutchinson 1984), internship experience (Gault *et al.* 2010; Gault *et al.* 2000), participation in competitions (Abernathy and Vineyard 2001; Mitchell *et al.* 2010) and participation in extra-curricular activities (Cole *et al.* 2004; Tsai *et al.* 2011) are attributes relating to better employment outcomes. Unfortunately, researchers have rarely studied the extent to which undergraduate students collectively consider the aforementioned 6 categories of attributes (i.e. internship experience, exchange experience, scholarships, participation in competitions, academic performance, and participation in extra-curricular activities) as important portfolios for building their Smart CVs.

Recent developments in recruitment processes have demonstrated that the Internet has increasingly been used by employers to advertise job postings and search for potential employees. Similarly, job hunters nowadays search and apply for jobs online (Furtmüller *et al.* 2010). Scholars have predicted that traditional CVs submitted as hardcopies will be replaced by online Smart CVs or flexible Electronic Portfolios (e-Portfolios) in the near future (Okoro *et al.* 2011). Cheung *et al.* (2015) has found positive relationship among 3 P's – portfolio, presentation, presence – and career planning and found different perspectives between male and female candidates. The purpose of our study is to explore what portfolio artifacts are perceived as important by undergraduate students in Hong Kong and find out which of those portfolios would be used for construction of a Smart CV. In particular, our study attempts to address the following research questions:

(1) What portfolios do undergraduate students in Hong Kong perceive as important for building their Smart CVs?

(2) Are there any differences in the perceived importance of different categories of portfolios in a Smart CV between undergraduate students admitted under the previous undergraduate curriculum using the results of the Hong Kong Advanced Level Examination (HKALE) and those admitted under the 3+3+4 academic structure using the results of Hong Kong Diploma of Secondary Education (HKDSE)?

(3) Are there any differences in the perceived importance of different categories of portfolios in a Smart CV between undergraduate students admitted by taking public examinations and those admitted with sub-degree qualification?

The contribution of this paper is two-fold. Theoretically, this study contributes to the existing literature on information systems by examining what portfolios undergraduate students in Hong Kong prefer for Smart CV construction. Practically, this study provides recommendations for university educators to guide students to prepare a stronger Smart CV for career preparation.

2   LITERATURE REVIEW

2.1   Smart CV

A Smart CV is a kind of e-Portfolio service that supports job hunters. According to Cheung *et al.* (2012), an e-Portfolio is a digital collection of attributes and demonstrations of accomplishments of an individual covering a period of time, such as study periods at universities, in the form of text and other multimedia like videos and photos. e-Portfolio service helps students establish their self-identity by providing them with a platform to express and illustrate their university experiences, level of learning satisfaction, self-efficacy, and willingness to help others. It also helps students develop a practice of self-regulation so as to attain their academic and career goals along with their university studies. Through the maintenance of e-Portfolios students regularly reflect their learning experiences. They learn to plan, execute and adjust their strategies according to their progress (Cheung *et al.* 2012). Previous studies have shown that e-Portfolios can enhance students' self-esteem (Chappell and Schermerhorn 1999; Cohen 1994; Engel 1995; Housego and Parker 2009; Rossi *et al.* 2008; Schipper and Rossi 1997; Willis and Wilkie 2009). An e-Portfolio is an excellent reflection tool that helps students evaluate their own strengths and weaknesses (Okoro *et al.* 2011). Moreover, an e-Portfolio service helps students accumulate their successful learning experiences and share their academic achievements with their peers. With frequently updating their e-Portfolios and learning through the e-Portfolios of their peers, students are motivated to peer-assess and peer-reflect e-Portfolios as part of responsibility in the e-Portfolio service (Cheung *et al.* 2012).

Apart from the advantages above, students learn to communicate with different audiences, like teachers, peers, and intern supervisors, present and market themselves by creating their own Smart CVs for different employment opportunities. A Smart CV provides a platform for students to interact with others by enabling them to review and comment on viewer's feedbacks on smart CVs which in turn encourage them to improve and polish their Smart CVs (Cheung *et al.* 2015). Students can improve Smart CVs frequently for better job prospects. The quality of a Smart CV can be understood in terms of three dimensions: (1) Portfolio, (2) Presentation, and (3) Presence. These three dimensions were found to be positively related to career planning (Cheung et al. 2015) and found interestingly different between male and female candidates. The 3 P's are described in detail below.

2.1.1   *Portfolio*

A Smart CV could be best backed up by an e-Portfolio with selective and substantial collection of logs, narratives and attributes. Portfolios are defined as "organized, goal driven documentation of professional growth and achieved competence" (Campbell *et al.* 1997, p.3). The portfolio of a Smart CV is similar to the content of a resume that includes artifacts, showcases, individual's strengths, etc.

2.1.2   *Presentation*
Presentation is the way how students present their portfolios in the digital form in order to create an impressive immediate look and feel to the viewers of a Smart CV. It can be regarded as a selective portfolio generated for and presented to a specific purpose and audience.

2.1.3   *Presence*

Presence refers to making one's Smart CV available online. In the era of Web 2.0, it has become a trend to exist virtually and mark one's online presence, digital identity and footprints through purposeful or even casual use of information and communication technology, social networking media and search functions.

2.2   Categories of Portfolios for a Smart CV Construction

In this study, we aim at finding out components of portfolios that are perceived as important by undergraduates. Based on the existing literature, we expect that internship experience, exchange experience, scholarships, participation in competitions, academic performance, and extra-curricular activities are of high importance when developing a successful Smart CV.

2.2.1   Internship Experience

Internship experience has been indicated as a predictor for undergraduate students' employability (Gault *et al.* 2010). Knouse and Fontenot (2008) pointed out that overall internship experience was beneficial. Specifically, internships enhance the possibility of undergraduate students securing employment opportunities, provide students with skills and practical experiences desired by employers, help them form realistic expectations about the nature of work and working environment, and bring satisfying experiences that encourage students to continue along their preferred career pathways. Gault *et al.* (2000) found significant early career advantages such as less time to obtain the first job, higher monetary compensation and greater job satisfaction, for undergraduates with internship experience. Gault et al. (2010) indicated that undergraduate students with internship experience had significantly more full time job opportunities. Interns with average performance are more likely to get full-time job offers than non-interns and those with high intern performance are more likely to get jobs with higher starting salaries.

2.2.2   Exchange Experience

Past researches have established that participation in international exchange programmes has favorable impacts on undergraduate students' subsequent labor market outcomes (Di Pietro and Page 2008). The experience of studying in a foreign university enables students to broaden their worldview and enrich their intercultural competence, which in turn strengthen their future career prospects (Ng *et al.* 2014). Maiworm and Teichler (1996) found that many students with foreign exchange experience were able to secure a job in which they could apply most of the skills learned such as language and professional knowledge, in the host country. The International Education of Students in the United States conducted a survey with 17,000 participants of its exchange programmes between 1950 and 1999. The results showed that the career impact and continued use of foreign language are much greater for graduates who worked internationally than for those who did not. Studying abroad for a full year, course enrollment at the host university, internship participation, and host family living arrangements were strongly associated with future international work.

2.2.3   Scholarships

Graduates should include any scholarships or awards they have received in their CVs (Brown and Campion 1994; Hutchinson 1984). Scholarships offered by universities not only provide a monetary reward that plays a practical role in assisting undergraduates cover living and tuition fees, but may also serve as a useful portfolio in their CVs to impress audiences. Scholarships serve as a recognition of students' excellence in both academic performance and non-academic attributes/activities. Moreover, scholarship awardees usually have to attend a number of interviews and compete with other nominees. This experience may enhance their employability as recruitment processes always include interviews and necessarily more than one in cases of international recruitment.

2.2.4   Participation in Competitions

The experience gained through participating in competitions enhances students' career prospects (Abernathy and Vineyard 2001). Students' performance in competitions is an indicator of graduates' qualities because competitions involve external evaluation of students' abilities, provide a basis for peer comparison, and connect the academic program to prestigious companies and organizations (Grady 2006). For instance, Huler (1991) found that participants in science competitions frequently pursed careers in science. Mitchell *et al.* (2010) found that biology undergraduate students had increased learning and stronger identity as biological engineers after participating in a student competition in

synthetic biology.

2.2.5   Academic Performance

Academic performance of undergraduates has been documented as a key factor for their career success. Many employers make employment decision based on applicants' academic achievement, which is regarded as a useful criterion to determine students' intelligence, motivation, and other abilities related to the job (Roth *et al.* 1996). Students' Grade Point Average (GPA) is positively associated with job performance (Roth *et al.* 1996) and salary (Roth and Clarke 1998). Samson *et al.* (1984) revealed that indicators of academic performance, for example, grades and test scores, were significantly related to criteria that evaluate occupational performance such as income, job satisfaction, and effectiveness ratings. The relationship between acdemic performance and occupational performance evaluation criteron was stronger in business and nursing disciplines while weaker in teaching and engineering disciplines.

2.2.6   Participation in Extra-Curricular Activities

Participation in extra-curricular activities has a positive effect on employment outcomes (Tsai *et al.* 2011). The experience gained through participating in extra-curricular activities is especially important for fresh graduates, as this experience allows them to showcase competencies which are otherwise not visible in their CVs due to limited working experience (Roulin and Bangerter 2013). Cole *et al.* (2004) found that CVs with information about extra-curricular activities increased employers' perception of the employability of applicants. Tchibozo (2007) also revealed that involvement in extra-curricular activities better enabled graduates' effective transition from higher education to the labor market.

2.3   The 3+3+4 Academic Structure in Hong Kong

The implementation of the 3+3+4 academic structure in Hong Kong may potentially affect career planning and CV building of the undergraduate students of Hong Kong. In the previous academic structure in Hong Kong that followed the British 5+2 model of secondary education, students completed 5 years of junior secondary education and 2 years of senior secondary education, before they proceeded to 3-year undergraduate programmes. There were two public examinations, the Hong Kong Certificate of Education Examination (HKCEE) at the end of Form 5 and the Hong Kong Advanced Level Examination (HKALE) at the end of Form 7 (Hill and Wan 2006). In the new 3+3+4 academic structure that was launched in 2009, students are expected to complete 3 years of junior secondary education and 3 years of senior secondary education, before admitting to 4-year undergraduate programmes. The HKCEE and HKALE have been replaced by the Hong Kong Diploma of Secondary Education (HKDSE) at the end of Form 6. The first HKDSE was held in 2012, and in the same year the 4-year undergraduate curriculum was launched (Finkelstein and Walker 2008; Hill and Wan 2006), i.e. the so-called double cohort admitted to first year of study at universities. Figure 1 shows the previous and new academic structures in Hong Kong.
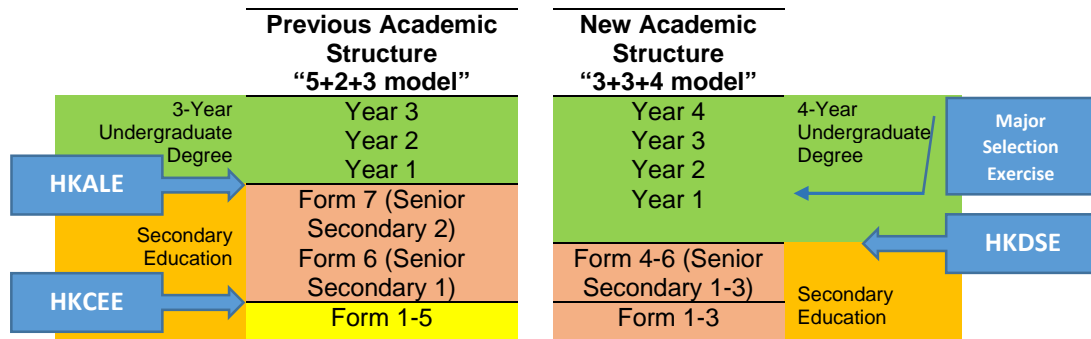

Figure 1. Previous and new academic structures in Hong Kong

Prior to the 3+3+4 academic reform, students applying for 3-year undergraduate studies completed 7 years of secondary education and took the HKALE. However, under the current 3+3+4 academic structure, students applying for the new 4-year undergraduate studies are expected to complete 6 years of secondary education and took the HKDSE. Researchers have argued that the educational environment plays an influential role in students' career development by requiring them to make career decisions at certain ages (Patton and Creed 2001). As students under the 3+3+4 academic structure need to leave secondary schools and choose their majors at the university one year early, they may require to be more self-directed and to develop earlier awareness of career opportunities.

Besides, undergraduate students in Hong Kong are mainly admitted to universities through two entrance routes: Joint University Programmes Admissions System (JUPAS) and non-JUPAS (direct entry). JUPAS is a unified system for students using HKALE or HKDSE examinations results to apply for undergraduate programmes, while non-JUPAS is a direct entry route for applicants with a sub-degree qualification. Generally speaking, sub-degree programmes aim to prepare students to be absorbed into the workforce thus, sub-degree holders entering universities through the non-JUPAS scheme may have a higher level of career maturity, in comparison with those students admitted through the JUPAS scheme.

2.4   The Proposed Study

As mentioned earlier, undergraduate students' internship experience, exchange experience, scholarships, participation in competitions, academic performance, and participation in extra-curricular activities are key factors that result in positive career outcomes. However, it is not well understood whether undergraduate students perceive these components as important portfolios for building their Smart CVs. This study seeks to develop an instrument to assess undergraduate students' perceived importance of these 6 dimensions when preparing their Smart CVs. Besides, research on undergraduate students' career planning and development has rarely examined the impacts of educational environment (Patton and Creed 2001). Our study seeks to explore the impact of the 3+3+4 academic structure and admission routes on Hong Kong undergraduates' perception of the importance of the 6 portfolios. Since students admitted to the new 4-year undergraduate programme using the HKDSE results need to choose their Majors at a younger stage than those admitted to the previous 3-year undergraduate programme using HKALE results, they may develop early career awareness. It is therefore expected that they would perceive the 6 portfolios as more important than students under the previous academic structure. Furthermore, because students admitted through the non-JUPAS route have received sub-degree education, they may have higher career maturity. It is expected that they would perceive the 6 portfolios as more important than students admitted through the JUPAS route.

3   METHOD

3.1   Participants and Procedure
The survey was sent to 448 undergraduate students, including 4 students from cohort 2011, from a local university in Hong Kong. A total of 256 students returned their responses. The return rate was 57.1%. The targeted undergraduate students were studying the BBA programme, majoring in either Information Management (IFMG) or Electronic Commerce (ECOM), and consent from the programme leader and students was sought and since have acknowledged for this study.

The IFMG Major includes three Study Streams: Business Intelligence (BI), Internet Services and Social Networks (ISSN) and Information Systems Auditing (ISA). Since the ECOM Major was actually the predecessor of the ISSN Stream of the IFMG Major, and there was only one cohort of 24 students in the academic year 2014/2015, this group of students was treated as ISSN students in data analysis.

In the academic year 2014/2015, there were 420 current students admitted to the BBA programme through two main entrance routes: JUPAS and non-JUPAS. For those admitted through the non-JUPAS route, students were either studying IFMG Major under the 3-year curriculum (BBA3), or getting one-year advanced standing and studying as senior-year intake students under the 2-year curriculum (BBA2).

In 2012, Form 6 students under the new 3+3+4 academic structure took the HKDSE and applied for the new 4-year undergraduate programmes through the JUPAS route. In the same year, Form 7 students under the previous academic structure took the HKALE and applied for the 3-year undergraduate programmes also through the JUPAS scheme. Therefore, both cohorts of Form 6 HKDSE candidates and Form 7 HKALE candidates resulted in a double cohort of first year undergraduate students in universities in 2012. Students with HKDSE results were enrolled in the 4-year undergraduate BBA programme (BBA4), whereas students with HKALE results were enrolled in the 3-year undergraduate BBA programme (BBA3). Meanwhile, there were two cohorts accepting senior-intake candidates to admit to universities at a self-financed or non-government funded mode in the non-JUPAS pathway in 2012 and 2013, i.e. BBAN2.

Regarding the three Study Streams of IFMG Major, all the BBA4, BBA3, BBA2 and BBAN2 students were admitted to the BI or ISSN Stream, and only the BBA4 students were admitted to the ISA Stream. For those BBA2 and BBAN2 students admitted to the BI or ISSN Stream in 2012, they were admitted to the IFMG Major with no Study Stream specified are marked as "NS" due to programme restructured.

3.2   Data Collection

The survey consisted of 44 items measuring undergraduate students' perceived importance of the 6 aspects of portfolios for building a Smart CV. The 6 portfolios were internship experience (8 items), exchange experience (9 items), scholarships (5 items), participation in competition (9 items), academic performance (5 items), and participation in extra-curricular activities (8 items), which are factors that potentially contributing to the portfolio of a successful Smart CV. Each item was rated on a 7-point Likert scale ranging from 1 (Strongly Disagree) to 7 (Strongly Agree). A higher score represents a higher degree of perceived importance. The targeted undergraduate students were invited to complete it online via the web survey platform "Qualtrics".

4   FINDINGS, ANALYSIS AND DISCUSSION

4.1   Factor Analysis

Principal component factor analysis with oblique rotation was performed on the 44 questionnaire items. The results are shown in Table 1, which include the KMO value and factor loadings.

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		**.906**
Bartlett's Test of Sphericity	Approx. Chi-Square	3928.385
	df	561
	Sig.	.000

Pattern Matrix

	Component					
Item	1	2	3	4	5	6
Q2. I think university students should go overseas exchange for at least one semester.	.808					
Q42. I can broaden my horizon by joining the student exchange programme.	.788					
Q8. My communication skills will be improved a lot upon the completion of student exchange programme.	.768					

	1	2	3	4	5	6
Q35. I am eager to have an overseas exchange opportunity.	.765					
Q31. Participating in a prestigious overseas university student exchange programme is my dream.	.735					
Q26. My critical thinking can be developed upon the completion of student exchange programme.	.692					
Q14. My independent thinking will be enhanced upon the completion of student exchange programme.	.675					
Q20. During the student exchange programme, I can expand my social network through meeting students from different countries.	.630					
Q33. I am determined to be one of the committee members (e.g. President, External Secretary, etc.) in a student society.		-.790				
Q6. Organizing extra-curricular activities can develop my organizational skills.		-.784				
Q12. I am enthusiastic about participating in the extra-curricular activities.		-.765				
Q29. Organizing extra-curricular activities can enhance my critical thinking and analytical skills.		-.579				
Q24. Participating in the extra-curricular activities helps me to expand my social network.		-.549				
Q21. The more scholarship amount I receive, the happier I am.			.705			
Q9. The longer the scholarship aid years, the happier I am.			.648			
Q3. I am eager to be awarded for a scholarship.			.588			
Q30. I prefer highly-paid internship.			.579			
Q23. A higher classification of honour award is very important to me.			.544			
Q1. Internship contract length is of my concern.			.431			
Q34. My ambition is to work as an intern in a prestigious company.			.381			
Q19. Being criticized by internship supervisors enables me to learn more.				-.764		
Q38. I believe I can learn from job mistakes in an internship.				-.764		
Q25. I believe I can learn a lot from working as an intern.				-.738		
Q13. An internship can help me expand my industry network.				-.603		
Q41. Sports activities can help my mental and health development.					.728	
Q37. I prefer to join extra-curricular activities during summer time.					.726	
Q4. I am eager to have opportunities to participate in local competitions.						.707
Q5. Language components in my study are very important for me.						.665
Q10. Participating in competitions enables me to meet industry people.						.597
Q11. Course project is very important to me.						.596
Q44. Participating in scholarship interviews can enhance my communication and presentation skills.						.550
Q17. Course project with real-world industrial elements incorporated is very useful for me.						.531
Q40. I can expand my social network and make more friends in competitions.						.504
Q43. I feel excited if I can participate in international competitions.						.413

Note: Salient variables are those with factor loadings greater than 0.3 in absolute value.
Table 1.   Factor loadings for principal component factor analysis with oblique rotation.

Kaiser (1974) recommended that KMO values greater than 0.5 are acceptable, values between .07 and .08 are good, and values above 0.9 are excellent. The KMO value in this study was 0.906. Therefore the correlations among items were adequate for factor analysis. The pattern matrix was used for interpretation as it contains information about the unique contribution of a variable to a factor.

Based on the meanings of the grouped items, factor 1 was related to exchange experience, factor 2 to participation in extra-curricular activities, factor 3 to scholarships and internship experience, factor 4 to internship experience, factor 5 to participation in extra-curricular activities again and factor 6 to participation in competitions and academic performance.

Since 10 items either had cross loadings or did not load on any factors, only 34 items (out of 44 items) were included in the final factor structure. That is, only the items with pure loadings after 5 times of factor analysis were kept. Although it seems that the 6 factors in the final factor structure were not quite clear-cut, all items of every portfolio artifacts in the final factor structure contributed to the underlying meanings of the latent variable Portfolio of a Smart CV.

4.2 Reliability Analysis of the 6 Portfolios

The reliability analyses were conducted for the 6 portfolios according to the originally designed research framework using the 34 items retained in the factor analysis. The Cronbach's alpha values of 3 portfolios (internship experience, scholarships and participation in extra-curricular activities) suggested that certain items could be further deleted to improve their reliabilities. For internship experience, 3 out of 7 items were deleted after two rounds of reliability analyses, and the alpha increased from 0.673 to 0.793. For scholarships, 1 out of 4 items was deleted after the first reliability analysis, and the alpha increased from 0.702 to 0.723. For participation in extra-curricular activities portfolio, 3 out of 7 items were deleted after two rounds of reliability analyses, and the alpha increased from 0.815 to 0.876. Hence, 27 items were included in subsequent data analyses.

The basic descriptive statistics and the reliability coefficients of the portfolios are provided in Table 2. The reliability coefficients of the 6 portfolios ranged from 0.617 to 0.904, indicating satisfactory reliability. Besides, the mean of internship experience was the highest (5.960) among the 6 portfolios, indicating that students perceived internship experience as the most important components for building Smart CVs.

Portfolio	Mean	Standard Deviation	N	Alpha	No. of Item
Internship Experience	5.960	0.693	241	0.793	4
Exchange Experience	5.681	0.839	254	0.904	8
Scholarships	5.823	0.769	254	0.723	3
Participation in Competitions	5.453	0.839	254	0.792	4
Academic Performance	5.540	0.713	254	0.617	4
Participation in Extra-Curricular Activities	5.633	0.849	254	0.876	4

Table 2.   Means, standard deviations and reliability coefficients (alpha) of the 6 portfolios

4.3 Correlations among the 6 Portfolios

It was expected that the 6 portfolios were inter-correlated with each other. Pearson correlations were used to examine the relationships among the 6 portfolios. Table 3 shows the correlations coefficients. The results revealed that all portfolios were positively and significantly correlated with each other (r = .417 to .577, p's < .01).

	1	2	3	4	5	6
1. Internship Experience	1					
2. Exchange Experience	.526	1				
3. Scholarships	.512	.534	1			
4. Participation in Competitions	.516	.517	**.577**	1		
5. Academic Performance	.477	.417	.498	.572	1	
6. Participation in Extra-Curricular Activities	.476	.477	.537	.552	.556	1

Note: All figures are significant at the 0.01 level (2-tailed).

Table 3   *Correlations among the 6 portfolios*

Participation in competitions and scholarships had the strongest correlation ($r = .577$, $p < .01$). It is possible that the experience of participating in competitions may increase students' chance of obtaining a scholarship, which is actually another kind of competition.

On the other hand, the correlation of academic performance with participation in competitions ($r = .572$, $p < .01$) and participation in extra-curricular activities ($r = .556$, $p < .01$) were also strong. This suggested that the students perceived that individual active involvement in competitions and extra-curricular activities is also an important non-academic performance and of a result of a discovery enriched curriculum promoted in the university in recent years, i.e. application and business ideation of academic and business knowledge. Participating in competitions and extra-curricular activities are always beneficial to students in terms of increased language skills, social skills, organizational skills, critical thinking and analytical skills, which are intended learning outcomes and practical skills learnt in competitions and extra-curricular activities. Besides, it is for sure that participants of competitions and extra-curricular activities must encounter certain level of stress throughout the process. Stress coping skills acquired during the competitions and extra-curricular activities may be helpful in regulating the emotions when encountering high pressure in studying, which in turns may help to improve academic performance. In addition, participation in competitions and participation in extra-curricular activities were correlated with each other ($r = 0.552$, $p < .01$), which was of similar magnitude (i.e. 0.5x) to the two correlations mentioned above.

4.4   Perceived Importance of Portfolios by Programme and Study Stream
Students of different disciplines might have different perceptions of the 6 portfolios. Their perceived importance of the 6 portfolios by programme are summarized and compared in Table 4.

Programme		Internship Experience	Exchange Experience	Scholarships	Participation in Competitions	Academic Performance	Participation in Extra-Curricular Activities
BBA2	Mean	5.878	5.728	5.739	5.494	5.451	5.545
	N	78	83	83	83	83	83
	Std. Deviation	.789	.870	.852	.782	.648	.843
BBA3	Mean	5.900	5.680	5.810	5.221	5.489	5.671
	N	65	70	70	70	70	70
	Std. Deviation	.632	.858	.726	.933	.722	.919
BBA4	Mean	6.105	5.721	5.872	5.608	5.637	5.738
	N	83	86	86	86	86	86
	Std. Deviation	.615	.761	.736	.804	.750	.773
BBAN2	Mean	5.833	5.192	**6.067**	5.417	5.717	5.333
	N	15	15	15	15	15	15
	Std. Deviation	.748	.929	.645	.699	.767	.924
Total	Mean	5.960	5.681	5.823	5.453	5.540	5.633
	N	241	254	254	254	254	254
	Std. Deviation	.693	.839	.769	.839	.713	.849

Table 4.   Means and standard deviations of the 6 portfolios by programme

The means of the 6 portfolios ranged from 5.221 to 6.105, indicating that students perceived the 6 portfolios as important factors for building their Smart CVs. Both BBA3 students (admitted using HKALE results) and BBA4 students (admitted using HKDSE results) perceived internship experience as the most important portfolio. Students believe that working as interns enable them to acquire early working experience and practical skills, which in turn might enhance their employment opportunities. Interestingly, students studying in self-financed mode (BBAN2) perceived that scholarships (6.067) as the most important. Monetary rewards might reduce self-financed students' financial burden, such as tuition fees, and allow them to focus more on their studies. Comparatively, BBA2 students from direct

entry perceived internship experience as the most important, same as the students from JUPAS scheme (BBA3 and BBA4).

Table 5 presents students' perceived importance of the 6 portfolios by stream of study. ISA students in the BBA4 programme considered internship experience as the most important factor for building their Smart CVs. ISA students perceived academic performance as less important than participation in competitions (5.576 vs 5.614). They might view that those who perform well in academic study might not perform well in job interviews. They might perceive that participating in competitions enable them to expand their social network while meeting more industry people, thus in turn helping them to succeed in their future job hunting. On the other hand, in comparison to the other students within the IFMG Major, BI students perceived that participation in competitions was less important than other portfolios (5.407). ISA students (5.906) perceive scholarships as more important than other students in other streams.

Study Stream		Internship Experience	Exchange Experience	Scholarships	Participation in Competitions	Academic Performance	Participation in Extra-Curricular Activities
BI	Mean	5.921	5.567	5.865	5.407	5.570	5.497
	N	82	91	91	91	91	91
	Std. Deviation	.628	.814	.654	.827	.774	.866
ISA	Mean	6.098	5.668	5.906	**5.614**	5.576	5.647
	N	46	46	46	46	46	46
	Std. Deviation	.688	.823	.595	.765	.780	.842
ISSN	Mean	5.896	5.718	5.681	5.426	5.493	5.703
	N	94	95	95	95	95	95
	Std. Deviation	.773	.865	.908	.849	.657	.852
NS	Mean	6.105	6.017	6.091	5.421	5.546	5.864
	N	19	22	22	22	22	22
	Std. Deviation	.502	.814	.805	.995	.549	.735
Total	Mean	5.960	5.681	5.823	5.453	5.540	5.633
	N	241	254	254	254	254	254
	Std. Deviation	.693	.839	.769	.839	.713	.849

Table 5.   Means and standard deviations of the 6 portfolios by study stream

4.5   The Effects of the 3+3+4 Academic Structure and Admission Route
The differences in perceived importance of the 6 portfolios between undergraduate BBA students admitted under the previous undergraduate curriculum using the HKALE results and those admitted under the 3+3+4 academic structure using the HKDSE results were examined using independent samples t-tests. Table 6 presents the results. Students who were admitted using HKDSE results perceived internship experience and participation in competitions as more important but was not the view of the students who were admitted using HKALE results. However, there were no significant differences in the perceived importance of the remaining 4 portfolios.

Portfolios	**HKALE**	**HKDSE**	**T-Value**	**2-Tail Significance**
Internship Experience	5.883	6.105	-2.393	**.017***
Exchange Experience	5.661	5.721	-.540	.590
Scholarships	5.798	5.872	-.730	.466
Participation in Competitions	5.374	5.608	-2.119	**.035***
Academic Performance	5.491	5.637	-1.550	.122
Participation in Extra-Curricular Activities	5.579	5.738	-1.420	.157

Note: * $p < .05$
Table 6.   The effect of the 3+3+4 academic structure on perceived importance of the 6 portfolios

Besides, the differences in perceived importance of the 6 portfolios between students admitted through the JUPAS route and those admitted through the non-JUPAS route were also tested using independent

samples t-tests. The results are presented in Table 7. No significant differences were found between the two groups of students.

Portfolio	JUPAS	Non-JUPAS	T-Value	2-Tail Significance
Internship Experience	6.026	5.888	1.551	0.122
Exchange Experience	5.670	5.693	-0.219	0.827
Scholarships	5.802	5.846	-0.455	0.649
Participation in Competitions	5.408	5.500	-0.870	0.385
Academic Performance	5.563	5.516	0.529	0.597
Participation in Extra-Curricular Activities	5.687	5.575	1.049	0.295

Table 7.   The effect of admission route on perceived importance of the 6 portfolios

5   LIMITATION AND RECOMMENDATION

5.1   Limitations and Future Research
This study had several limitations. First, as there were 22 incomplete questionnaires in this study, the number of valid case for each question was different. Since these 22 cases did not respond to the 4 remaining items measuring internship experience, the scale score had only 241 valid cases.
Second, some items in the survey had loadings on two or more factors and were deleted from subsequent analysis. The meanings of those items may be ambiguous from the perception of the participants. Those items are recommended to be revised in the future study.

Third, the number of self-financed participants (BBAN2) was relatively small for data analysis (below 30). Thus, a larger sample size of each subgroup is needed to increase the statistical power. This study involved undergraduate students only from the BBA programme majoring in IFMG or ECOM Major in one of the universities in Hong Kong. Future research should also attempt to recruit participants studying in different majors and different universities to increase the generalizability of the research results.

5.2   Recommendation
According to the results, we found that undergraduate students perceived internship experience, and participation in competitions are more important portfolios than other portfolio artifacts for building their Smart CVs. Therefore, university teachers, especially the programme leaders, are recommended to provide more assistance and advices for students to enhance these 2 areas. For example, teachers may encourage students to join competitions and train their skills (e.g., organizational skills, analytical skills, stress coping skills) to enhance students' chances of qualifying for and winning competitions. Besides, teachers are suggested to encourage students to apply for internship in their summer time. Students are also advised to attend industrial seminars to enhance their understanding of knowledge and applications in the workplace. This should address the perception of less working experience from undergraduates admitted to university with one year earlier upon the academic reform.

Apart from the two areas mentioned above, the following suggestions are made for universities to help students strengthen the portfolios of their Smart CVs. Universities may expand their network of partner universities and arrange more international exchange programmes to increase students' chances of studying abroad. Moreover, universities may invite more industrial scholarship donations, encourage more students to apply for scholarships and provide them with more information about scholarships available. Furthermore, academic units may organize more extra-curricular activities to enhance students' knowledge and skills outside their fields of studies. Non-credit bearing courses for extra-curricular activity can be considered and printed in academic transcripts. Finally, course leaders may organize supplementary classes or revision groups for students to enhance their academic performance. At university level, education service units may also promote more peer-assisted learning scheme using

supplemental instruction (PALSI) and encourage course leaders to join the scheme and leverage social and mobile learning applications for knowledge sharing, especially in large class-size setting (Cheung *et al.* 2014).

6. CONCLUSION

This study is a preliminary investigation of undergraduates' perceived importance of various portfolios for building their online Smart CVs. To answer the research question, "What portfolios do undergraduate students in Hong Kong perceive as important for building their Smart CVs?", the results of principle component factor analysis and reliability analysis supported that the 6 portfolios of internship experience, exchange experience, scholarships, participation in competitions, academic performance, and participation in extra-curricular activities were reliable and valid measures of students' perception of important portfolios for building a Smart CV. The means of the 6 portfolios ranged from 5.453 to 5.960 on a 7-point, indicating that undergraduate BBA students in Hong Kong perceived these 6 factors as quite important portfolios for building their Smart CVs. Previous studies have established that these 6 factors are predictors of undergraduate students' career prospects (Roth *et al.* 1996; Di Pietro and Page 2008; Brown and Campion 1994; Gault *et al.* 2010; Abernathy and Vineyard 2001; Cole *et al.* 2004). This study enriches the existing literature by investigating undergraduate students' perception of their importance in building a Smart CV.

With regard to the second research question, "Are there any differences in the perceived importance of different categories of portfolios in a Smart CV between undergraduate students admitted under the previous undergraduate curriculum using the HKALE results and those admitted under the 3+3+4 academic structure using the HKDSE results?", the results revealed that the 3+3+4 academic reform had effects on undergraduate students' perception. Undergraduate students admitted under the new 4-year undergraduate curriculum using HKDSE results perceived internship experience and participation in competitions as significantly more important than those admitted under the 3-year undergraduate curriculum using HKALE results. To answer to third research question, "Are there any differences in the perceived importance of different categories of portfolios in a Smart CV between undergraduate students admitted by taking public examinations and those admitted with sub-degree qualification?", the results indicated no significant differences between students admitted through JUPAS and non-JUPAS schemes. Past research on undergraduate students' career planning often overlooked the influences of educational environment (Patton and Creed 2001). This study contributes to the literature by showing how academic reform could affect undergraduate students' perceived importance of different portfolios in Smart CVs.

7. ACKNOWLEDGEMENTS

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