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Narrowing the Gap between Digital Marketing Education and Practice: A Conceptual Framework

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ABSTRACT

The convergence of IT and marketing leads to the rising demand of digital marketers. Tertiary marketing education plays a crucial role in preparing students to grasp the knowledge and skills and to possess the attitude so necessary to contemporary marketing industry. However, several reports highlight that the shortages are significant in this sector. Both academics and practitioners are the key stakeholders to solve this disconnection. Although there are many studies investigating the relationship between marketing education and marketing practice, there are only a few quantitative studies focusing on digital marketing. Drawing on the literature and the standards of digital marketers' professional certifications, this study aims to develop a conceptual framework identifying the key attributes of an effective digital marketer. The proposed digital marketer model is composed of three key antecedents: (1) marketing knowledge and skills; (2) technical knowledge and skills; and (3) ethical knowledge and skills. First, marketing knowledge and skills refers to the communication, client engagement, strategic management and channel management. In order to practice data-driven marketing, digital marketers should also be equipped with technical knowledge and skills, including search engine optimization, statistical analysis, data mining, web and mobile apps. Similar to the professionals in other industries, digital marketers should uphold the code of ethics so as to protect the privacy of clients and the reputation of companies. The key finding provides insights to academics on how to revamp or streamline the marketing programmes and ultimately narrowing the gap between education and practice in the context of digital marketing.

KEYWORDS: Digital Marketing, Digital Marketer, Digital Marketing Education, Marketing Professionals, Digital Marketing Strategy

1 INTRODUCTION

The recent changes in marketing and information technologies enable organizations to develop effective digital marketing strategies. The role of digital marketing has been increasing expanded in industrial firms, creating new marketing advantages in product, price, promotion, and place, and positions in the digital business. Firms have been shifted from traditional marketing into digital marketing activities. A study in the US revealed that out of 600 leading enterprises in the US, 77% will increase their digital marketing expenditures where these companies' total digital marketing spending account for almost 63% of the total marketing budget (Econsulancy, 2015). As digital marketing strategy is significant to getting ahead of the competition in firms, the role of digital marketers is critical in delivering effective digital marketing solutions (Leeflang, Verhoef, Dahlström, & Freundt, 2014). It is then important for tertiary marketing education to prepare students to grasp the knowledge and skills and to possess the attitude so necessary to contemporary marketing industry. However, there are issues in current digital marketing education in which marketing graduating students do not possess sufficient digital marketing knowledge and practices in generating effective digital marketing strategies (Wymbs, 2011). Thus, this study provides insights to academics and senior management on how to revamp or streamline the marketing programmes and ultimately narrowing the gap between education and practice in the context of digital marketing.

2 DIGITAL MARKETING

The concept of digital marketing is evolving from time to time. However, providing a clear definition of digital marketing is significant to serve as a basis for consistent understanding. According to Smith (2007), digital marketing is defined as “the use of digital technologies to create an integrated, targeted and measurable communication which helps to acquire and retain customers while building deeper relationships with them”. In fact, digital marketing is a process of restructuring and modernizing the traditional marketing mix of four Ps (i.e. product, price, place and promotion) into digital communication and media infrastructures of information management (Royle & Laing, 2014; Xu, Frankwick, & Ramirez, 2015). Under the concept of marketing digitalization, digital marketing means that various electronic media activities and techniques, such as interactive marketing, social media marketing, search engine marketing (SEM), search engine optimization (SEO), mobile apps, etc., are used by companies to promote products or services, increase sales, build and retain customer relationships.

Due to unprecedented technological advancement for business, business digitalization (such as higher education sector) has been rapidly developed. As technology advances, the size of marketing data transformed from small data sets (megabytes or gigabytes) to massive volume which is unstructured and complex in nature. For example, massive volume of data from social media (e.g. Facebook, twitter, and Instagram) and smartphone apps (e.g. WeChat, WhatsApp) which is defined as “big data”. Effective digital marketing management should be considered to manage, analyze and visualize big data in a structural and meaningful form so as to provide insights for firms to solve problems and improve organizational performance.

3 DIGITAL MARKETING EDUCATION

One of the barriers in digital marketing is the lack of effective digital strategies and techniques (Ryan, 2014). In fact, traditional marketing curriculum does not equip students with necessary skills. For instance, students do not have sufficient or necessary knowledge or techniques regarding analytics and measurement tools for social media. Leeflang et al. (2014) point out the talent gap issue – 440k to 490k digital marketing talents are needed in USA in 2018; however, only 300k of these talents are estimated to be available. DMI (2016c) further

highlight digital skills gap exists in Ireland, for instance, 8 in 10 people with a marketing remit failed to achieve entry level competency in digital marketing. Wymbs (2011) reviewed the top 10 marketing undergraduate programs in the United States, and some issues were addressed in the digital marketing area. Firstly, the “digital marketing” course has many different names such as Web Marketing, Web Design Marketing, Social Media Marketing, Electronic Commerce, Content Marketing, Mobile Marketing, Internet Marketing etc.; thus, the main topic areas to be taught in the course are varied and inconsistent. Table 1 shows the main topic areas of the digital marketing-related courses in the top 10 marketing programmes in the United States. Marketing graduating students would have unbalanced marketing and technical knowledge and skills; some students may be weak at analytics or evaluation skills if they do not learn such knowledge in their undergraduate programmes. A similar review was conducted and Table 2 presents the digital marketing-related module offered in Hong Kong higher education sector. The incomprehensive digital marketing curriculum model affects the learning outcomes of marketing graduating students and creates the obstacles in becoming effective digital marketers. It is then necessary to create a formal procedure and curriculum model in the digital marketing education context. For instance, the School of Professional Education and Executive Development, The Hong Kong Polytechnic University (PolyU SPEED) offers the Bachelor of Arts (Honours) Scheme in Marketing (with specialism in Marketing and Digital Strategy) in 2016/2017.

Secondly, it is likely that a digital marketing course would be developed when faculty members who have strong interest or expertise in the area of digital marketing are available in the institution (Buzzard, Crittenden, Crittenden, & McCarty, 2011). For instance, if the faculty member is the expertise of Information Systems, then an internet marketing course or a web design marketing course is developed. Therefore, not many institutions would offer many digital marketing courses due to the lack of expertise in digital marketing related area.

Table 1 The main topic areas of the digital marketing-related courses

Courses	No Course	Digital Marketing	Law of E-Commerce	Data Mining	Design of E-Business Systems	Electronic Commerce	Direct Response and Internet Marketing	Digital Advertising	Social Media
Wharton—University of Pennsylvania			X						
University of Michigan		X							
University of Texas				X					
University of California Berkeley					X				
University of North Carolina	X								
University of Indiana		X							
University of Wisconsin	X								
New York University		X							
University of Virginia						X			
University of Southern California							X		

Source: Adopted from Wymbs (2011)

Table 2 Digital marketing-related courses in Hong Kong Universities

University	Level	Module
Chinese University of Hong Kong (CUHK)	Undergraduate	Internet Marketing Database Marketing
	Postgraduate	E-Marketing
University of Hong Kong (HKU)	Undergraduate	Marketing on the Commercial Internet Internet Marketing
	Postgraduate	Communications in the Digital Era Behavioral Research Methods and Statistical Analysis
Hong Kong University of Science and Technology (HKUST)	Undergraduate	Big Data Management
	Undergraduate	e-Marketing Data-centric Marketing
City University of Hong Kong (CityU)	Postgraduate	Database Marketing: Models and Analysis Electronic Marketing Social Media Marketing
	Undergraduate	Internet Marketing E-Commerce for Management Market Decision Analysis
Hong Kong Polytechnic University (PolyU)	Postgraduate	E-Commerce E-Marketing
	Undergraduate	Digital Marketing and Strategy Electronic Commerce Strategy and Implementation Search Engine Marketing and Analytics Social Media Marketing Strategy Information Society Issues and Policy Web Design for Marketers CRM & Retail Technology
Hong Kong Polytechnic University (PolyU SPEED)	Undergraduate	Marketing Communications and Social Media
Hong Kong Baptist University (HKBU)	Undergraduate	Marketing Communications and Social Media

Source: Developed for this study

4 REVIEW OF KEY THEORIES IN DIGITAL MARKETING EDUCATION AND PRACTICES

This section aims to review key theories in digital marketing education and practices. The first model was introduced by Harrigan and Hulbert (2011) and it was named as “new marketing DNA”. Secondly, Royle and Laing (2014) proposed a “Digital Marketer Model” for the communication industries. Thirdly, some other related theories were compared and contrasted.

Harrigan and Hulbert (2011) observe that that the marketing graduates are not equipped with necessary skills that the industry expects in 21st century. In order to strengthen the connection between marketing education and marketing practice, researchers conducted interviews with senior marketing personnel in United Kingdom and transformed the “old Marketing DNA” to “new Marketing DNA” (Figure 1). There are five components in the proposed model: (1) customer-led marketing; (2) value-driven strategic marketing; (3) channels; (4) data-driven marketing; and (5) online and offline integrated marketing communications (Harrigan & Hulbert, 2011). The paper first highlights that communication; trust and commitment with customers are the crucial elements in customer-led marketing. Through the integration between technology and marketing processes, customer data can be collected and in turn customer insight is built. Therefore, it is suggested that marketing academics should put more emphasis on delivering the strategies and tactics of customer insight to students. Secondly, the concept of “added value” is explained in value-driven strategic marketing. Apart from the products/services offered, marketers should be able to create real value proposition with their customers - which ultimately enhancing competitive advantages in their organizations. Marketing academics are advised to conduct more research on how companies deliver values to customers, at the same time, producing value for themselves. Finally, this knowledge can be transferred to the future marketers.

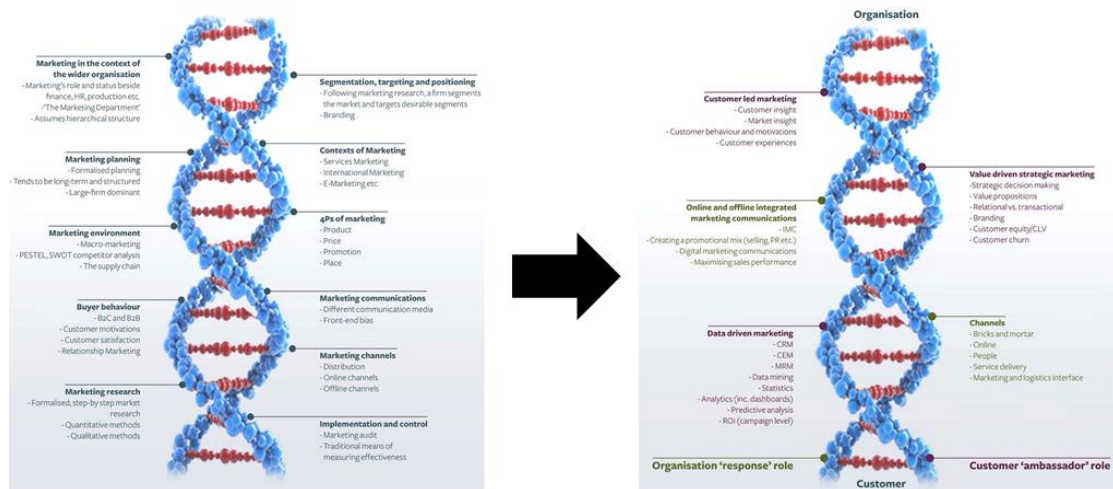


Figure 1: Marketing DNAs

Source: Adapted from Harrigan and Hulbert (2011)

Online marketing channel was discussed in the third DNA element – channels. Social media and blogs are the examples of online marketing channel and the interaction between organizations and customer can be improved through this. According to Harrigan and Hulbert (2011), more education and training in managing these two-way media should be provided to marketing students. Fourthly, data-driven marketing is comprised of customer relationship management (CRM), customer experience management (CEM), web analytics, data mining...etc. However, Harrigan and Hulbert (2011) raise a problem that technology is now driving the marketing. Marketing academics are suggested to understand and teach these analytical tools and processes from the marketing perspective. Lastly, online communication should not be the only way for marketing communication activity. An integrated approach - comprising online and offline media - should be studied by marketing faculty and finally be delivered to marketing students.

By interviewing twenty industrial professionals, Royle and Laing (2014) developed the “Digital Marketer Model” to specify the digital marketing skills gaps in communication industries (Figure 2). This model aims to help organizations to identify knowledge, skills and abilities for employing new digital marketers or for upskilling purpose (Royle & Laing, 2014). It is represented with a continuum along the dimensions of two required skills – (1) business management skills; and (2) technical skills. “Corporate communication”, “client engagement”, “futuregazing, foresighting and future proofing” and “research” skills are more on the business management dimension. In contrast, “strategic integration of digital marketing skills”, “measurement, monitoring and evaluation” and “technological knowledge” are the components closer to technical skills dimension. The research stressed that technical skills gap was a problem faced by marketing industry. Digital marketing skillset includes the mobile applications, use of social media and blogs, SEO, web analytics and CRM/CEM.

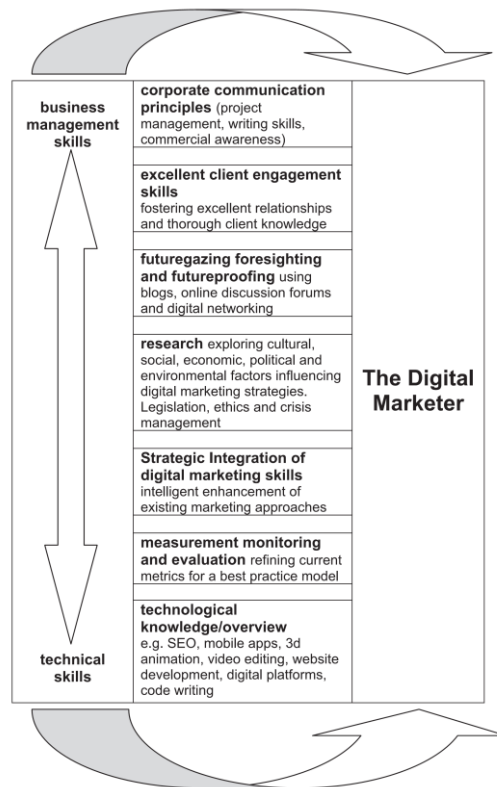
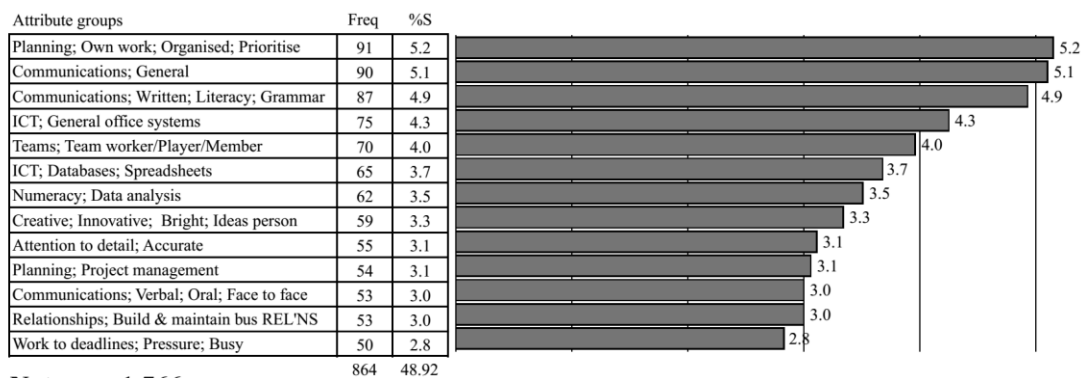


Figure 2: Digital Marketer Model

Source: Adopted from Royle and Laing (2014)

Apart from the abovementioned models, Wellman (2010) conducted a study to examine the required attributes for new marketing graduates. The top eight attribute groups for both transferable skills and personal traits are exhibited in Figure 3. Some of the attributes are parallel to those discussed before and they are communications, relationships, information and communication technology, data analysis and project management. In a later study, Finch, Nadeau, and O'Reilly (2012) conducted a survey to review the marketing education in Canada. The knowledge clusters adopted in their study include meta-skills, communications (social media), strategic marketing, channel management (CRM/E-commerce), marketing context, product management and design.



Note: $n = 1,766$

Figure 3: Top Eight Attributes of Marketing Graduates

Source: Adopted from Wellman (2010)

By comparing the aforementioned digital marketing theories, Table 3 presents the knowledge, skills and abilities which marketing practitioners perceived as important. Studies generally agree that communication skills (including online versus offline; written versus oral) and technical skills are important attributes for marketing professionals. Besides, the elements in client engagement, strategic marketing management, research and data analysis were identified in most of the studies. To sum up, this section provided the review of key theories in digital marketing education and practices.

Table 3 Summary of Marketing Practitioners Attributes

Table 3: Summary of Marketing Practitioners Attributes

Literature	Wellman (2010)	Harrigan and Hulbert (2011)	Finch et al. (2012)	Royle and Laing (2014)
KSA				
Channel management		*	*	
Client engagement, relationship	*	*		*
Communication	*	*	*	*
ICT, social media & other technical skills	*	*	*	*
Project management	*			*
Research, data mining & data analysis	*	*		*
Strategic marketing		*	*	*

Source: Developed for this study

5 ATTRIBUTES OF DIGITAL MARKETER FROM THE PERSPECTIVE OF PROFESSIONAL BODIES

This sections aims to introduce the knowledge, skills and abilities of digital marketers defined by local and global professional bodies. Hong Kong Association of Interactive Marketing (HKAIM) and Hong Kong Digital Marketing Academy (HKDMA) are the local professional bodies in digital marketing while global digital marketing organizations include EC-Council Institute of iBusiness (IIB), Online Marketing Certified Professionals (OMCP), The Digital Marketing Association (DMA Global), eMarketing Association (eMA) and The Digital Marketing Institute (DMI). These professional organizations offer digital marketing programmes and courses, professional membership, accreditation and credentials. Their standards, requirements, certification framework will be reviewed in the following sections.

5.1 Hong Kong Association of Interactive Marketing

HKAIM was established in 2007 and its aims are “to bridge the gap between the advertising and the technology sectors, to identify standard and regulations within the industry in Hong Kong, and promote the value and success of Interactive Marketing to public community” (Fong, 2007). HKAIM offers both membership and certification. There are three different membership levels: (1) corporate; (2) member; and (3) student. For the certification, HKAIM launched the Certified Digital Marketer (CDM) designation to recognize “experienced, qualified and up-to-date digital marketing professionals” (HKAIM, 2016). There are two entry routes, Normal Entry Scheme and Senior Management Entry Scheme. In order to be certified, members should meet the stated academic requirements and have two years of practical (or teaching) experience in digital marketing. The application will then be assessed by the HKAIM Professional Qualification and Development Committee. According to HKAIM (2016), the later scheme is designed for those who have been the senior management in digital marketing for 5 or more years or for those who have contributed significantly to digital marketing sector. Continuing Professional Development (CPD) is a requirement for CDM to maintain their certifications. Applicants with higher diploma or above qualification in business management, computing or information technology and two-

year experience in digital marketing can also apply for CDM designation upon the completion of Executive Certificate in Digital and Social Media Marketing, offered by the Institute for Entrepreneurship, The Hong Kong Polytechnic University. The course content is listed in Table 4.

Table 4 Course Content in Executive Certificate in Digital and Social Media Marketing

Module	Unit
Digital Marketing Channels and Essentials	<ul style="list-style-type: none"> ● Overview of Digital Marketing ● Digital Marketing Channels
Digital Consumer Behaviour and Brand Building with Social Media	<ul style="list-style-type: none"> ● Digital Consumer Behaviour – Consumer Behavior in Digital Age ● Brand Building with Social Media
Strategy Development, Implementation, Practices and Evaluation of Digital Marketing	<ul style="list-style-type: none"> ● Digital Marketing Strategy ● Integrated Approach of Digital Marketing ● Implementation, Practices and Evaluation of Integrated Digital Marketing

Source: PolyU (2016)

5.2 Hong Kong Digital Marketing Academy

HKDMA is one of the Hong Kong business partners of DMI in which sets the worldwide digital marketing certification standard. According to HKDMA (2016a), there are five courses offered: (1) Professional Diploma in Digital Marketing; (2) Specialist Professional Diploma in Mobile Marketing; (3) Specialist Professional Diploma in Search Marketing; (4) Specialist Professional Diploma in Strategy and Planning; and (5) Specialist Professional Diploma in Social Media Marketing. The Professional Diploma in Digital Marketing is a 30-hour course which covers SEO, pay per click (PPC), digital display advertising, mobile marketing, web analytics, social media marketing and strategy & planning. The topics of each specialist professional diploma are summarized in Table 5.

Table 5 Course Content in Specialist Professional Diplomas

Specialism	Unit
Mobile Marketing	Mobile messaging, mobile sites, mobile apps, mobile advertising, mobile video, mobile games marketing, mobile commerce, cross channel marketing, strategy and planning
Search Marketing	SEO, PPC, Google Analytics, search marketing strategy and planning
Strategy and Planning	Traditional and digital communications, digital channels, social customer service, budget, personnel, risks and reputation, analytics, strategy formulation and plan
Social Media Marketing	Content creation, content outreach, Facebook, Twitter, LinkedIn, Google+, YouTube

Source: HKDMA (2016b); HKDMA (2016c); HKDMA (2016d)

5.3 EC-Council Institute of iBusiness

EC-Council IIB is an institution which offers vendor-neutral certifications (EC-Council, 2016a). Currently, IIB offers two levels of certification in digital marketing - Certified Internet Marketing Practitioner (CIMP) and CDM. The former one is mainly targeted at middle- to senior-level managers from marketing, e-commerce, sales, strategic planning and information technology (IIB, 2016a). CIMP examination covers e-commerce, SEO, web traffics, web analytics, advertising campaign, email marketing, mobile marketing, social media, video marketing, affiliate marketing, blog advertising, podcast advertising, leads generations and conversation. CDM is another credential for digital marketing experts with years of experience. Additionally, they should be equipped with solid knowledge and hands-

on experience in the following domains, for instance strategic digital marketing, content marketing, social media optimization, SEO, mobile digital marketing, web analytics and return on investment (IIB, 2016b). Upon certification, CDM holders have to uphold the code of ethics and to obtain sufficient continuing education hours for renewal. Some examples of the code of ethics (IIB, 2016b) include

- Keeping information confidential
- Protecting the intellectual property
- Managing projects in an effective way
- Conducting work ethically and professionally
- Not taking part into any hacking activity

5.4 Online Marketing Certified Professionals

According to OMCP (2016a), OMCP is the “emerging standard for certification of online marketing professionals” and there are two levels of certification: Online Marketing Certified Associate (OMCA) and OMCP. OMCA is open for practitioners with less digital marketing experience while OMCP is designed for experienced digital marketing professionals. The certification requirements of both OMCA and OMCP are exhibited in Figure 4 and Figure 5.



Figure 4: OMCA Certification

Source: OMCP (2016b)



Figure 5: OMCP Certification

Source: OMCP (2016c)

Their examinations cover the topics of content marketing, conversion rate optimization, email marketing, mobile marketing, paid search, SEO, social media marketing and web analytics. To maintain the certification, OMCP holders have to pass the exam yearly, to earn professional development units (seminars, events and trainings) and to embrace the code of ethics. Examples of OMCP code of ethics include:

- Providing most effective recommendations with respect to industry trends and best practices
- Conducting work fairly and honestly
- Avoiding actions which may be harmful to others (OMCP, 2016d)

5.5 The Digital Marketing Association

DMA Global is the “*Association for Digital Marketing Professionals*”(DMA, 2016). The roles of DMA Global are to promote digital marketing education, to offer membership and to launch the certified digital marketing program. There are three categories of membership: (1) professional (individual); (2) educational organization; and (3) corporate. Professional (individual) membership is open to those who are working at digital marketing

sector. Members are provided with the opportunities to meet other digital marketing practitioners and to receive updates in the industry. Apart from membership, DMA Global offers a certified program. Graduates from the Postgraduate Diploma in Digital and Social Media Marketing, offered by University of California Irvine Extension, will be awarded for Certified Marketer by DMA Global. The programme is composed of core and elective parts. Core courses include the Overview of Digital Marketing, Social Media and Internet Audience Profiling, Online Analytics and Measurement, Planning and Developing Your Search Engine Marketing, Website Optimization and Personalization, Developing a Social Media Strategy. For the elective part, students can choose modules from Display Advertising, Transmedia Marketing through Storytelling, Email Marketing, Mobile Marketing, Online Video Marketing and Content Marketing (UCI-Extension, 2016).

5.6 eMarketing Association

eMA is “an international association of individual marketers, companies and governments committed to the advancement of marketing in the digital era”(eMA, 2016a). This association offers digital marketing certifications, online courses and memberships. To recognize the competency in different digital marketing disciplines, several certifications are available: (1) Certified eMarketer; (2) Certified Mobile Marketer; (3) Certified Social Marketing Associate; (4) Marketing Certified Consultant; and (5) Certified Webmaster. Participation in continuing education and professional activities is a requirement to maintain the certification. Besides, eMA designs a number of online courses which cover basic e-marketing, advanced SEO, email, social marketing and mobile marketing. For the membership, the association offers four categories. For students or practitioners with limited experience, they can join as student and associate member respectively. Experienced digital marketing professionals are eligible for the professional membership (eMA, 2016b) and the final category is for corporate.

5.7 The Digital Marketing Institute

In 2012, DMI was established in Ireland. With reference to the European Qualifications Framework and the Qualifications Framework for the European Higher Education Area, DMI developed the DMI Qualifications Framework (DMIQF) (Figure 6). This framework facilitates students, institutions and employers to understand the qualifications, skills and competencies (DMI, 2016a). Take the Professional Diploma in Digital Marketing as an illustration. The focus of this diploma is placed on the planning, implementation, and measurement of digital marketing strategy (DMI, 2016b). Students have to complete ten modules in this programme and they are Introduction to Digital Marketing, Search Marketing (SEO), Search Marketing (PPC), Digital Display Advertising, Email Marketing, Social Media Marketing (Part 1), Social Media Marketing (Part 2), Mobile Marketing, Analytics, Strategy & Planning. Graduates of this professional diploma are encouraged to take higher qualification so as to deepen their skills in digital marketing (Figure 7).

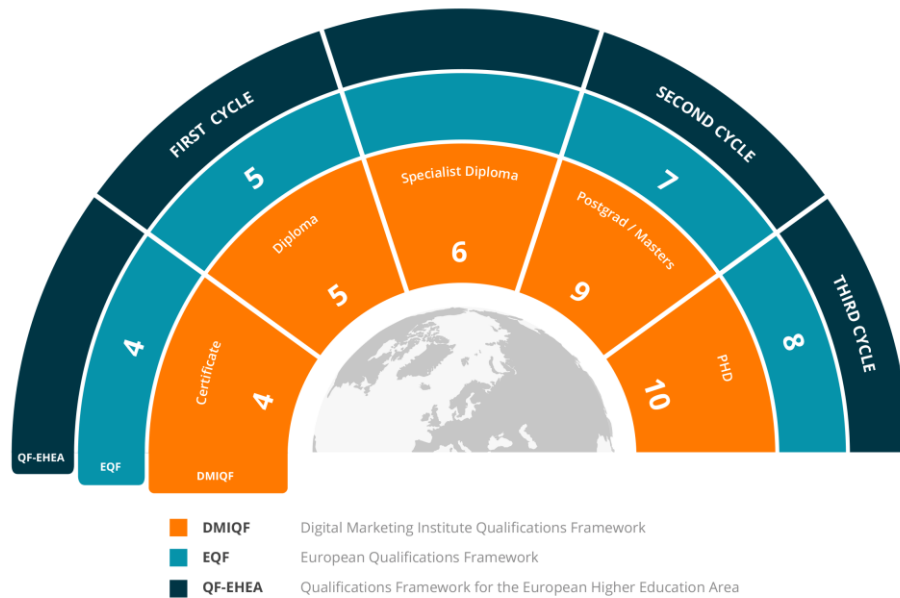


Figure 6: DMI Qualifications Framework

Source: Adopted from DMI (2016a)



Figure 7: DMI Study Path

Source: Adopted from DMI (2016b)

5.8 Comparison of Digital Marketer Attributes from Professional Bodies

Previous sections introduce the certification programme, professional membership and education programmes offered by digital marketing professional bodies. Table 6 summarizes the knowledge, skills and abilities of digital marketing professional from the perspective of these organizations. Mobile marketing, SEM, social media marketing, web analytics and digital marketing strategy are the core skills digital marketing professionals. Besides, digital marketers should also be equipped with the knowledge and skills in email marketing, content and video marketing. More importantly, digital marketers should behave ethically and professional. So, the upholding of the code of ethics is considered as an important element in digital marketing sector.

Table 6 Summary of Digital Marketers' attributes

	HKAIM	HKDMA	IIB	OMCP	DMA Global	eMA	DMI
Big Data & Web Analytics	*	*	*	*			*
Code of ethics			*	*		*	
Content Marketing	*		*	*	*		
Email Marketing	*			*	*	*	
Evaluation of digital marketing	*		*		*		
Mobile Marketing	*	*	*	*	*	*	*
SEM	*	*	*	*	*		*
Social Media Marketing	*	*	*	*	*	*	*
DM Strategy & Planning	*	*	*		*	*	*
Viral and Video Marketing	*				*		

Source: Developed for this study

6 A CONCEPTUAL MODEL FOR EFFECTIVE DIGITAL MARKETERS

Drawing on the digital marketing education and practices literature, as well as the information from the digital marketing professional bodies, this paper aims to propose a conceptual framework which identifies the key attributes of an effective digital marketer (Figure 8). Three antecedents are proposed in this two-tier framework and they are (1) marketing knowledge and skills; (2) technical knowledge and skills; and (3) ethical knowledge and skills.

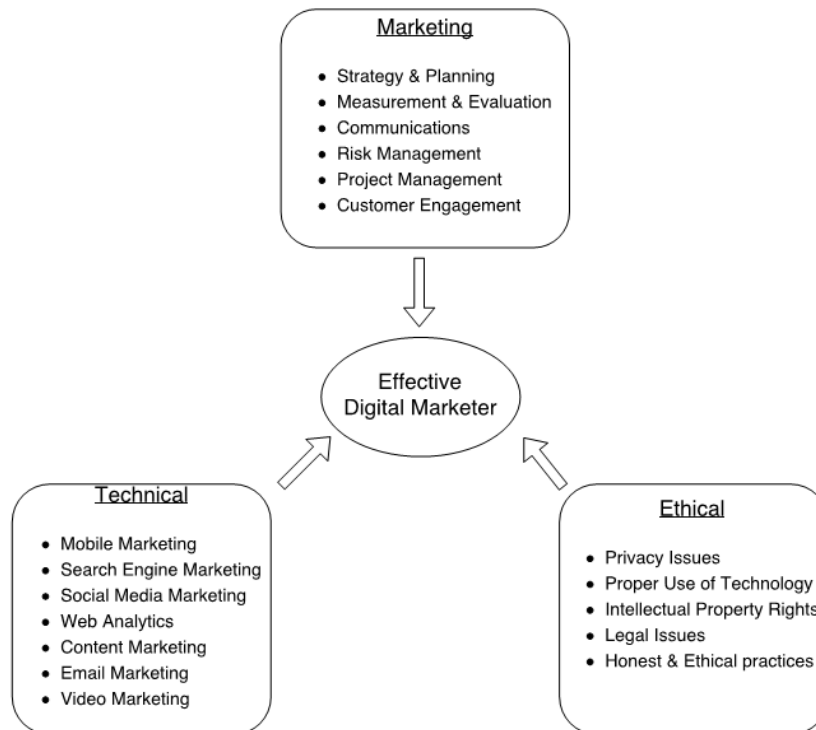


Figure 8: Conceptual Framework for Digital Marketing Education

Source: Developed for this study

7 FUTURE RESEARCH DIRECTION

This paper aims to present a conceptual framework in digital marketing education context where little prior research has been done. As there is a lack of existing literature that offers a structural approach in improving digital marketing education and practices with the integration of (1) marketing knowledge and skills; (2) technical knowledge and skills; and (3) ethical knowledge and skills for becoming an effective digital marketers. This study tends to fill this research gap by developing a comprehensive conceptual framework. As this conceptual framework is not tested qualitatively or quantitatively, it would be interesting to conduct a quantitative research to collect primary data from the different stakeholders' perspectives. It is aimed at collecting information from academics or senior management of universities in examining the effectiveness of the proposed integrated conceptual framework in narrowing the gap between education and practice in the context of digital marketing.

8 CONCLUSION

To be an effective digital marketer, this study proposed a two-tier digital marketer model composing of three key antecedents: (1) marketing knowledge and skills; (2) technical knowledge and skills; and (3) ethical knowledge and skills. Marketing knowledge and skills comprise of the communication, client engagement, strategic management and channel management. Technical knowledge and skills are also essential in data-driven digital marketing. Digital marketers should be well-equipped with technical knowledge and skills in the form of SEO, statistical analysis, data mining, web and mobile apps. Similar to the professionals in other industries, digital marketers should sustain the code of ethics so as to protect the privacy of clients and the reputation of firms. The proposed model helps academics and senior management to streamline the marketing programmes and ultimately narrowing the gap between education and practice in the context of digital marketing.

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