AN EXTENDED PROTECTION MOTIVATION THEORY FOR CYBER FRAUD PREVENTION

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Abstrak

Kebimbangan mengenai keselamatan siber, terutamanya berkaitan dengan penipuan siber, semakin mendapat perhatian, khususnya dalam bidang e-Perkhidmatan. Walaupun sistem keselamatan yang lebih canggih telah dilaksanakan, e-Perkhidmatan masih terdedah kepada ancaman, menyebabkan kerugian bernilai berbilion dolar kepada ekonomi digital. Walaupun penting untuk mempercayai rangkaian dan sistem, individu atau pengguna harus belajar dan menerapkan tingkah laku perlindungan untuk diri mereka sendiri. Oleh itu, kajian ini memberi fokus kepada pembangunan model tingkah laku perlindungan penipuan siber menggunakan Teori Motivasi Perlindungan (PMT). Sebanyak 560 responden telah dipilih menggunakan teknik persampelan bertujuan, yang lazim digunakan dalam penyelidikan dalam talian kerana ketiadaan rangka persampelan yang stabil dan kumpulan responden yang sering berubah. Pautan kepada borang soal selidik telah diedarkan melalui beberapa pelantar media sosial yang popular, seperti Facebook, WhatsApp, dan Telegram. Data telah dianalisis menggunakan teknik "partial least squares structural equation modelling technique" (PLS-SEM). Hasil kajian ini mendapati bahawa persepsi terhadap seriusnya ancaman siber, norma subjektif, keberkesanan tindak balas, kemahiran kecekapan keselamatan siber, serta pengetahuan kecekapan keselamatan siber secara signifikan dapat meningkatkan niat pengguna untuk terlibat dalam tingkah laku perlindungan. Selain itu, faktor seperti kepentingan melindungi data peribadi dalam e-Perkhidmatan secara langsung mempengaruhi persepsi pengguna e-Perkhidmatan terhadap seriusnya ancaman siber, sementara itu, kredibiliti sesuatu sumber telah menunjukkan keputusan sebaliknya. Kajian ini turut memberikan pandangan tentang pelbagai kaedah yang berpotensi digunakan oleh pengguna untuk melindungi diri daripada menjadi mangsa penipuan siber. Secara keseluruhan, kajian ini menyediakan panduan kepada pembuat dasar dan pengamal dalam bidang keselamatan siber, terutamanya dalam merangka strategi untuk meningkatkan perlindungan pengguna e-Perkhidmatan daripada penipuan siber. Ini seterusnya mengukuhkan daya tahan platform digital dan menyokong pertumbuhan ekonomi mampan dalam ekonomi digital Malaysia.

Katakunci: Teori Motivasi Perlindungan (PMT), Keselamatan siber, Penipuan siber, e-Perkhidmatan, Tingkah laku dalam talian

Abstract

Cybersecurity concerns particularly around cyber fraud have come under increased scrutiny, especially in the area of e-Services. Despite implementing enhanced security systems, e- Services remain vulnerable, leading to billions of dollars in losses for the digital economy. While trust in networks and systems is essential, individuals must take proactive steps to learn and adopt protective behaviours to safeguard themselves. Therefore, this study focuses on developing a cyber fraud protection behaviour model using the Protection Motivation Theory (PMT). A total of 560 respondents were selected using the purposive sampling technique, which is widely employed in online research because there is no fixed list of respondents and the group keeps changing. The questionnaire link has been distributed on several popular social media platforms, such as Facebook, WhatsApp, and Telegram. The data were analysed using the partial least squares structural equation modelling technique (PLS-SEM). The finding revealed that perceived threat severity, subjective norm, response efficacy, cybersecurity efficacy skills, and cybersecurity efficacy knowledge significantly increases users' intention to engage in protective behaviour. Additionally, antecedent factors, such as the perceived value of data, directly influence the perceived threat severity of e-Services users, while source credibility indicates contradictory results. Furthermore, this study identifies that wishful thinking among e-Services users significantly strengthens maladaptive rewards, which influence the intention of users to engage in protective behaviour. The original model was extended, and a comprehensive research framework was developed through this research. It also provides insights into various potential methods users can use to protect themselves from becoming victims of cyber fraud. Ultimately, this dissertation provides valuable insights for policymakers and practitioners in the field of cybersecurity, particularly in formulating strategies to enhance the protection of e-Services users against cyber fraud, thereby strengthening resilience on digital platforms and supporting sustainable economic growth in Malaysia's digital economy.

Keywords: Protection motivation theory (PMT), Cybersecurity, Cyber fraud, e-Services, Online behaviour

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CHAPTER ONE

INTRODUCTION

1.1 Background of Studies

The internet has certainly enabled individuals, communities, and organisations to effect beneficial changes such as empowering people, improving and spreading democratic values, encouraging technology, and boosting the economy over the years. One of the most transformative aspects of the internet is its ability to drive innovation and improve access to services across various domains, fostering greater convenience and efficiency in everyday life. e-Services that have been widely used, such as e-commerce, e-government, e-learning and e-banking (Goundar, 2021; Saleemi et al., 2017) have allowed for efficient services and boosted productivity among netizens. This has led to an escalating volume of data being stored, processed, and managed within digital platforms (Khando et al., 2021).

However, the digital transition comes with two effects, offering massive opportunities and creating substantial risks to communities, economies, and national security. These substantial risks will worsen if left unchecked since the field is still in its infancy stage. Nevertheless, as the field continues progressing rapidly, more academic efforts are required to understand the field and remain up to date with the current trends (Dawson & Thomson, 2018). Among the substantial risks posed by the digital transition, cybercrime stands out as a pressing concern due to its pervasive and evolving nature (Payne & Hadzhidimova, 2018). As digital platforms become more integral to everyday life, the potential for malicious actors to exploit vulnerabilities for personal gain has grown significantly, particularly in the form of cyber fraud.

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APPENDICES

Questionnaire feedback

Constructs	Questionnaire Items	Scale	Your Assessment			Comment	F
			Perfect Match (maintain item as it is)	Moderate Match (maintain item but needs some refining)	Poor Match (remove item)		
Source credibility	I believe emails from Malaysian government domain (.gov) are credible. *Saya percaya e-mel dari domain kerajaan Malaysia (.gov) boleh dipercayai. .adalah sahih.* *e-Services (.gov.my/.edu.my.)*	7-point of scale	E1: / E2: / E3: E4: /	E1: E2: E3: / E4:	E1: E2: E3: E4:	E1: - E2: - E3: Semak (.gov) atau Malaysian goverment (. gov.my) E4: Yes, I agree with this item. However, I have a different understanding on the word credible which to me it not translated to "boleh dipercayai". It is more towards sesuatu sumber yang sahih. Boleh dipercayai lebih merujuk kepada "trusted".	

	I believe emails from Malaysian government domain (.gov) tend to be free from grammatical errors. *Saya percaya e-mel dari domain kerajaan Malaysia (.gov) kebiasaannya bebas daripada kesalahan tatabahasa.*		E1: / E2: / E3: E4:	E1: E2: E3: / E4: /	E1: E2: E3: E4:	E1: - E2: - E3: Juga adakah semua responden menggunakan e-Services dan domain gov.my sahaja? E4: I do not have strong preference for this item as I think it does not really reflect directly with the source of credibility. Maybe you consider to use the term "trusted" here instead. "I believe emails from Malaysia government domain (.gov) can be trusted." If you introduce this, perhaps you can retain item no 1.	
	I believe emails from Malaysian government domain (.gov) tend to have a sense of urgency. *Saya percaya e-mel dari domain kerajaan Malaysia (.gov) kebiasaannya mendesak pengguna bertindak dengan segera.*		E1: / E2: / E3: E4: /	E1: E2: E3:/ E4:	E1: E2: E3: E4:	E1: E2: E3: E4: Acceptable	
Perceived value data	I perceive the importance of regarding the security protection of my data in e-Services. *Saya merasakan pentingnya melindungi data saya dalam e-Perkhidmatan*.	7-point of scale	E1: / E2: E3: / E4: /	E1: E2: / E3: E4:	E1: E2: E3: E4:	E1: E2: I perceive the importance of security protection of my data in e-Services. E3: Semak e-Services/e-gov services or define e-Services. *answering below* E4: Suggestion:	R

						I would reword the English version to: "I perceived the importance of security protection towards my data in e-Services.	
	I am aware of the potential risk of monetary loss if there are breaches to my personal data. *Saya menyedari saya berkemungkinan menghadapi risiko kerugian wang sekiranya terdapat kejadian akses tanpa izin terhadap data peribadi saya.*		E1: / E2: E3: / E4: /	E1: E2: / E3: E4:	E1: E2: E3: E4:	E1: E2: Saya menyedari kemungkinan menghadapi risiko kerugian wang sekiranya terdapat kejadian akses tanpa izin terhadap data peribadi saya. E3: Dicadangkan lebih ringkas tetapi sekiranya maksud tidak sampai kekalkan. Contoh: I am aware of monetary loss if there are breaches to my personal data E4: I would reword the Malay version to; "Saya sedar akan kemungkinan menghadapi risiko kerugian wang sekiranya brlaku akses tanpa izin terhadap data peribadi saya".	R

	I perceived the e-Services high guarantee confidential of my personal data. *Saya merasakan e-Perkhidmatan dapat memberikan jaminan yang tinggi dalam merahsiakan data peribadi saya*		E1: / E2: E3: / E4: /	E1: E2: / E3: E4:	E1: E2: E3: E4:	E1: E2: I perceived the e-Services provide a high guarantee confidential of my personal data. E3: E4: Suggestion: I would reword both version to: "I perceived the e-Services can fully guarantee the confidentiality of my personal data. "Saya merasakan e-Perkhidmatan dapat memberikan sepenuh jaminan dalam merahsiakan data peribadi saya"	R E4
Subjective norm	Most people who are important to me think it is a good idea to logout after using e-Services account. *Kebanyakan kenalan rapat saya berpendapat adalah idea yang baik untuk log keluar setelah menggunakan akaun e-perkhidmatan.*	7-point of scale	E1: / E2: E3: / E4: /	E1: E2: / E3: E4:	E1: E2: E3: E4:	E1: E2: Kebanyakan kenalan rapat saya berpendapat adalah penting untuk log keluar setelah menggunakan akaun e-perkhidmatan. E3: Semak alih bahasa E4: This is an important construct-however, the question appears to be incomplete as it only stated what others think about the behaviour. How about whether one should perform it or not?	R

						I would suggest to revise the question as follows: “Most people who are close to me think it is important to logout after using e-Services account, hence it is important to me to do so.” “Kebanyakan kenalan rapat saya berpendapat bahawa ianya penting untuk log keluar setelah menggunakan akaun e-Perkhidmatan, maka dengan itu ianya penting untuk saya berbuat demikian”	
	Most people who are important to me think it is a good idea to not save password automatically when using e-Services account. *Kebanyakan kenalan rapat saya berpendapat bahawa adalah idea yang baik untuk tidak menyimpan kata laluan secara automatik apabila menggunakan akaun e-perkhidmatan.*		E1: / E2: / E3: / E4: /	E1: E2: E3: E4:	E1: E2: E3: E4:	E1: E2: E3: Semak alih bahasa E4: I think maybe for this item you can try to reword accordingly as suggested above.	R

	Most people who are important to me think it is a good idea to more cautious when using e-Services. *Kebanyakan kenalan rapat saya berpendapat adalah idea yang baik untuk lebih berhati-hati apabila menggunakan e-perkhidmatan*		E1: / E2: / E3: / E4: /	E1: E2: E3: E4:	E1: E2: E3: E4:	E1: E2: E3: Semak alih bahasa E4: Same here-please try to reword it to make it consistent with the above.	R
Wishful thinking	I wish I could use e-Services without increasing my security protection. *Saya harap saya dapat menggunakan e-Perkhidmatan tanpa meningkatkan perlindungan keselamatan saya.*	7-point of scale	E1: / E2: / E3: / E4: /	E1: E2: E3: E4:	E1: E2: E3: E4:	E1: E2: E3: E4: Acceptable	
	I wish that the threat would go away or somehow not affected me. *Saya berharap bahawa ancaman siber akan hilang dan tidak akan memberi kesan kepada saya.*		E1: E2: / E3: / E4: /	E1: / E2: E3: E4:	E1: E2: E3: E4:	E1: When you use word OR, there is a possibility of the item to be double barrelled. I would suggest the items to be separated into two items, to be safe E2: E3: Semak “double barrel” E4: Acceptable	? split 2
	I hope I will not encounter any cyber threat situation.		E1: / E2: / E3: / E4: /	E1: E2: E3: E4:	E1: E2: E3: E4:	E1: E2: E3: E4: Acceptable	

	Saya harap saya tidak akan menghadapi sebarang situasi ancaman siber.						
Perceived threat severity	I believe that being a victim of cyber fraud in e-Services is a serious problem for me. *Saya percaya bahawa menjadi mangsa penipuan siber dalam e-Perkhidmatan adalah masalah serius bagi saya.*	7-point of scale	E1: / E2: / E3: / E4: /	E1: E2: E3: E4:	E1: E2: E3: E4:	E1: It is better to simplify the sentence E2: E3: E4:	
	I believe that the time/masa loss to recover the damages (e.g., money loss, data loss) after being a victim of cyber fraud is a serious problem. *Saya percaya bahawa kerugian masa untuk memulih kerosakan selepas menjadi mangsa penipuan siber adalah masalah yang serius.*		E1: / E2: / E3: / E4: /	E1: E2: E3: E4:	E1: E2: E3: E4:	E1: This sentence also needs to be simplified E2: E3: E4: I would like to suggest for item 2& 3 of this construct to be combined: Suggestion: I believe that the time and productivity loss to recover the damages (e.g.: money or data loss) after being a victim cyber fraud is a serious problem for me. *The reason for combining -time & productivity is view as related to one another- can maintain consistency of having 3 item per construct.	

	I believe that my productivity/effort loss to recover the damages (e.g., money loss, data loss) from being a victim of cyber fraud is a serious problem. (relate more on kerja)* doble check. *Saya percaya bahawa kehilangan produktiviti (cth.: Kehilangan pendapatan) untuk memulihkan daripada penipuan siber adalah masalah yang serius.* *Saya percaya bahawa kerugian produktiviti untuk memulih kerosakan (kehilangan harta,) selepas menjadi mangsa penipuan siber adalah masalah yang serius.* **maksud kerugian produktiviti*		E1: / E2: / E3: / E4: /	E1: E2: E3: E4:	E1: E2: E3: E4:	E1: It is better if you could simplify this sentence E2: E3: E4:	
	I believe that the data/information loss from being a victim of cyber fraud is a serious problem. *Saya percaya bahawa kehilangan data/maklumat daripada menjadi mangsa penipuan siber adalah masalah yang serius*.		E1: / E2: / E3: / E4: /	E1: E2: E3: E4:	E1: E2: E3: E4:	E1: Saya percaya bahawa kehilangan data/maklumat akibat menjadi mangsa penipuan siber adalah masalah yang serius. E2: E3: E4: Acceptable	R

Perceived threat vulnerability	I am exposed to the cyber fraud threats of e-Services. *Saya terdedah kepada ancaman penipuan siber e-Perkhidmatan.*	7-point of scale	E1: / E2: / E3: / E4: /	E1: E2: E3: E4:	E1: E2: E3: E4:	E1: E2: Macam mana responden boleh rasa dirinya terdedah kepada ancaman penipuan siber? E3: E4:	
	I am at risk for being victimized by cyber fraud attackers. *Saya berisiko menjadi mangsa penyerang penipuan siber*.		E1: / E2: / E3: / E4: /	E1: E2: E3: E4:	E1: E2: E3: E4:	E1: E2: E3: E4: Suggestion to reword: "I am at risk of being victimized by cyber fraud attacker"	R
	It is likely that I will become a victim of cyber fraud. *Saya mungkin akan menjadi mangsa penipuan siber.*		E1: / E2: / E3: / E4: /	E1: E2: E3: E4:	E1: E2: E3: E4:	E1: E2: E3: E4: Suggestion to reword: "It is possible for me to become a victim of cyber fraud." *No need attacker	R
Maladaptive rewards / Preventive countermeasures (d4)	I can save my time if I'm not using any preventive countermeasures application (e.g.: antivirus, anti-malware). *Saya dapat jimatkan masa saya jika saya tidak menggunakan sebarang aplikasi langkah balas pencegahan (contohnya: antivirus, anti-malware).*	7-point of scale	E1: / E2: / E3: / E4: /	E1: E2: E3: E4:	E1: E2: E3: E4:	E1: E2: E3: E4: Acceptable	

	I can save my money if I'm not using any preventive countermeasure applications. *Saya dapat jimatkan wang saya jika saya tidak menggunakan sebarang aplikasi langkah balas pencegahan.*		E1: / E2: / E3: / E4: /	E1: E2: E3: E4:	E1: E2: E3: E4:	E1: E2: E3: E4:	
	I will be better informed of the security risk if I'm using any preventive countermeasure applications. *Saya akan dimaklumkan dengan lebih baik mengenai risiko keselamatan jika saya menggunakan aplikasi pencegahan.*		E1: / E2: / E3: / E4:	E1: E2: E3: E4: /	E1: E2: E3: E4:	E1: E2: E3: E4: This item is slightly contradict with the OD for this construct. If you purposely place it for reverse effect then it has to be reworded so that it will not contradict with its original definition. Suggestion: I think it is a waste of effort to spend more money on anti-virus software to increase the protection against cyber fraud. *Further discussion and improvement, more jelas*	R E4

	I will spend less effort if I do not perform the recommendations of the preventive countermeasure applications. *Saya tidaklah perlu bersusah-payah sangat sekiranya saya tidak melaksanakan saranan-saranan aplikasi tindak balas pencegahan.*		E1: / E2: / E3: / E4: /	E1: E2: E3: E4:	E1: E2: E3: E4:	E1: E2: E3: E4: Acceptable	
	I will feel less stressful if I do not perform the recommendations of the preventive countermeasure applications. *Saya akan berasa kurang tertekan jika tidak melaksanakan saranan-saranan aplikasi langkah balas pencegahan.*		E1: / E2: / E3: / E4: /	E1: E2: E3: E4:	E1: E2: E3: E4:	E1: E2: E3: E4: Acceptable	
Response efficacy	When using preventive countermeasures application, a computers data is more likely to be protected. *Semasa menggunakan aplikasi langkah balas pencegahan, data komputer lebih berkemungkinan dilindungi.*	7-point of scale	E1: / E2: / E3: / E4: /	E1: E2: E3: E4:	E1: E2: E3: E4:	E1: E2: E3: E4: Acceptable	

	Performing any cybersecurity recommendations would reduce the chance of myself from becoming cyber fraud victims. *Melakukan sebarang saranan-saranan keselamatan siber akan mengurangkan risiko saya menjadi mangsa penipuan siber.*		E1: / E2: / E3: / E4: /	E1: E2: E3: E4:	E1: E2: E3: E4:	E1: E2: E3: E4: Acceptable	
	Performing any of the provided recommendations make me feel safe from cyber fraud attack. *Melaksanakan sebarang saranan-saranan keselamatan yang diberikan membuat saya merasa selamat daripada serangan penipuan siber.*		E1: / E2: / E3: / E4: /	E1: E2: E3: E4:	E1: E2: E3: E4:	E1: E2: E3: E4: Acceptable	
Cybersecurity efficacy skills (E2S)	I am competent in using web browsers. *Saya cekap menggunakan pelayar web.*	7-point of scale	E1: / E2: / E3: / E4:	E1: E2: E3: E4: /	E1: E2: E3: E4:	E1: E2: E3: E4: Item 1 & 2 does not reflect skills on countermeasures against cyber fraud-only reflect general IT skills. refer back to the OD of this construct- Cybersecurity Efficacy. Suggestion:	

						"I know how to construct a good strong password for my email account." *add soalan yg ni	
	I am competent to manage my email. *Saya cekap menguruskan e-mel saya.*		E1: / E2: / E3: / E4:	E1: E2: E3: E4: /	E1: E2: E3: E4:	E1: E2: E3: E4: "I can easily differentiate between legitimate and fake website by looking at its URL." *jwpn jd yes and no	
	I am competent to connect to a virtual private network (VPN) to access e-Services. *Saya cekap menyambung ke rangkaian persendirian maya (VPN) untuk mengakses e-perkhidmatan.*		E1: / E2: / E3: / E4: /	E1: E2: E3: E4:	E1: E2: E3: E4:	E1: E2: E3: E4:	
	I am competent to install anti-malware software. *Saya cekap memasang perisian anti-malware.*		E1: / E2: / E3: / E4: /	E1: E2: E3: E4:	E1: E2: E3: E4:	E1: E2: E3: E4:	
Cybersecurity efficacy knowledge (E2K)	I always update my software to the current version. *Saya selalu mengemaskini perisian saya kepada versi semasa.*	7-point of scale	E1: / E2: / E3: / E4:	E1: E2: E3: E4: /	E1: E2: E3: E4:	E1: E2: E3: E4: Choose the relevant item to represent the construct for E2b and E2c	

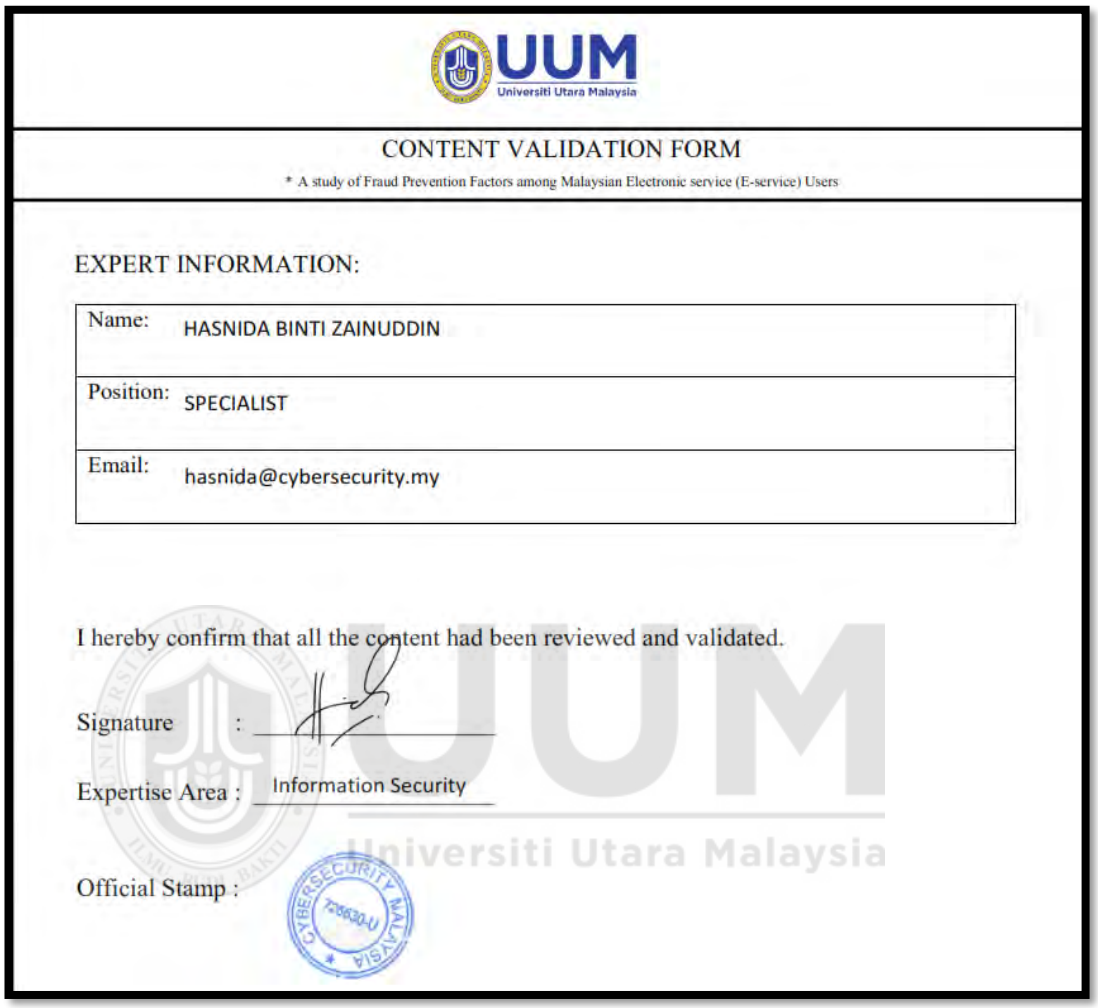
	I will update my details, like passwords, PINs, credit card information or account details via links in email or SMS. *Saya akan mengemaskini atau mengesahkan butiran saya, seperti kata laluan, PIN, maklumat kad kredit atau butiran akaun melalui pautan-pautan dalam e-mel atau SMS.*		E1: E2: / E3: / E4:	E1: / E2: E3: E4: /	E1: E2: E3: E4:	E1: E2: E3: Semak “double barrel” E4:	
	I do not notice the differences between http and https. *Saya tidak perhatikan perbezaan antara http dan https.*		E1: / E2: / E3: / E4:	E1: E2: E3: E4: /	E1: E2: E3: E4:	E1: E2: Saya tidak kisah perbezaan antara http dan https. E3: E4:	
	I share my password with my family members. *Saya berkongsi kata laluan saya dengan ahli-ahli keluarga saya.*	7-point of scale	E1: / E2: / E3: / E4:	E1: E2: E3: E4:	E1: E2: E3: E4:	E1: E2: Saya berkongsi kata laluan saya dengan ahli keluarga saya. E3: E4:	
	I share the e-Services Transaction Authorization Code (TAC) with others upon request. *Saya berkongsi Kod Keizinan Transaksi e-Perkhidmatan (TAC) dengan orang lain jika diminta.*		E1: / E2: / E3: / E4:	E1: E2: E3: E4:	E1: E2: E3: E4:	E1: E2: E3: E4:	
	I will open attachments or click links from the email sent by the e-Services providers.		E1: / E2: / E3: / E4:	E1: E2: E3: E4:	E1: E2: E3: E4:	E1: E2: E3: E4:	

	Saya akan membuka lampiran atau mengklik pautan-pautan daripada e-mel yang dihantar oleh pembekal e-Perkhidmatan.						
Protection behaviour intention	I will update my knowledge to use e-Services safely. *Saya akan meningkatkan ilmu pengetahuan saya untuk menggunakan e-Perkhidmatan dengan selamat.*	7-point of scale	E1: / E2: / E3: / E4: /	E1: E2: E3: E4:	E1: E2: E3: E4:	E1: E2: E3: E4: Acceptable	
	I will likely engage in activities that protect my personal information from cyber fraud when I use e-Services. *Saya mungkin akan terlibat dalam aktiviti yang melindungi maklumat peribadi saya daripada penipuan siber semasa saya menggunakan e-Perkhidmatan.*		E1: / E2: / E3: / E4: /	E1: E2: E3: E4:	E1: E2: E3: E4:	E1: E2: E3: E4: Acceptable	
	I intend to protect myself from cyber fraud when I use e-Services. *Saya berhasrat untuk melindungi diri daripada penipuan siber semasa menggunakan e-Perkhidmatan.*		E1: / E2: / E3: / E4: /	E1: E2: E3: E4:	E1: E2: E3: E4:	E1: E2: E3: E4: Acceptable	

	I am willing to spend more in order to protect myself from cyber fraud when I use e-Services. *Saya bersedia membelanjakan lebih banyak wang untuk melindungi diri daripada penipuan siber semasa saya menggunakan e-Perkhidmatan.*		E1: / E2: / E3: / E4: /	E1: E2: E3: E4:	E1: E2: E3: E4:	E1: E2: E3: E4: "I am willing to spend more money in order to protect myself from cyber fraud when I use e-Services." Although it is understood when we say spend more usually refer to money but one can read it as spend more time/effort-so better consistent with the Malay version.	e4
	I will likely take precaution that protects my personal information from cyber fraud when I use e-Services. *Saya mungkin akan mengambil langkah berjaga-jaga untuk melindungi maklumat peribadi saya daripada penipuan siber semasa saya menggunakan e-Perkhidmatan.*		E1: / E2: / E3: / E4: /	E1: E2: E3: E4:	E1: E2: E3: E4:	E1: E2: E3: E4: Acceptable	

CONTENT VALIDITY (EXPERTS)

Expert 1



CONTENT VALIDATION FORM

* A study of Fraud Prevention Factors among Malaysian Electronic service (E-service) Users

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I hereby confirm that all the content had been reviewed and validated.

Signature :

Expertise Area : Information Security

Official Stamp :

Expert 2

UUM
Universiti Utara Malaysia

CONTENT VALIDATION FORM

* A study of Fraud Prevention Factors among Malaysian Electronic service (E-service) Users

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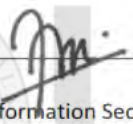
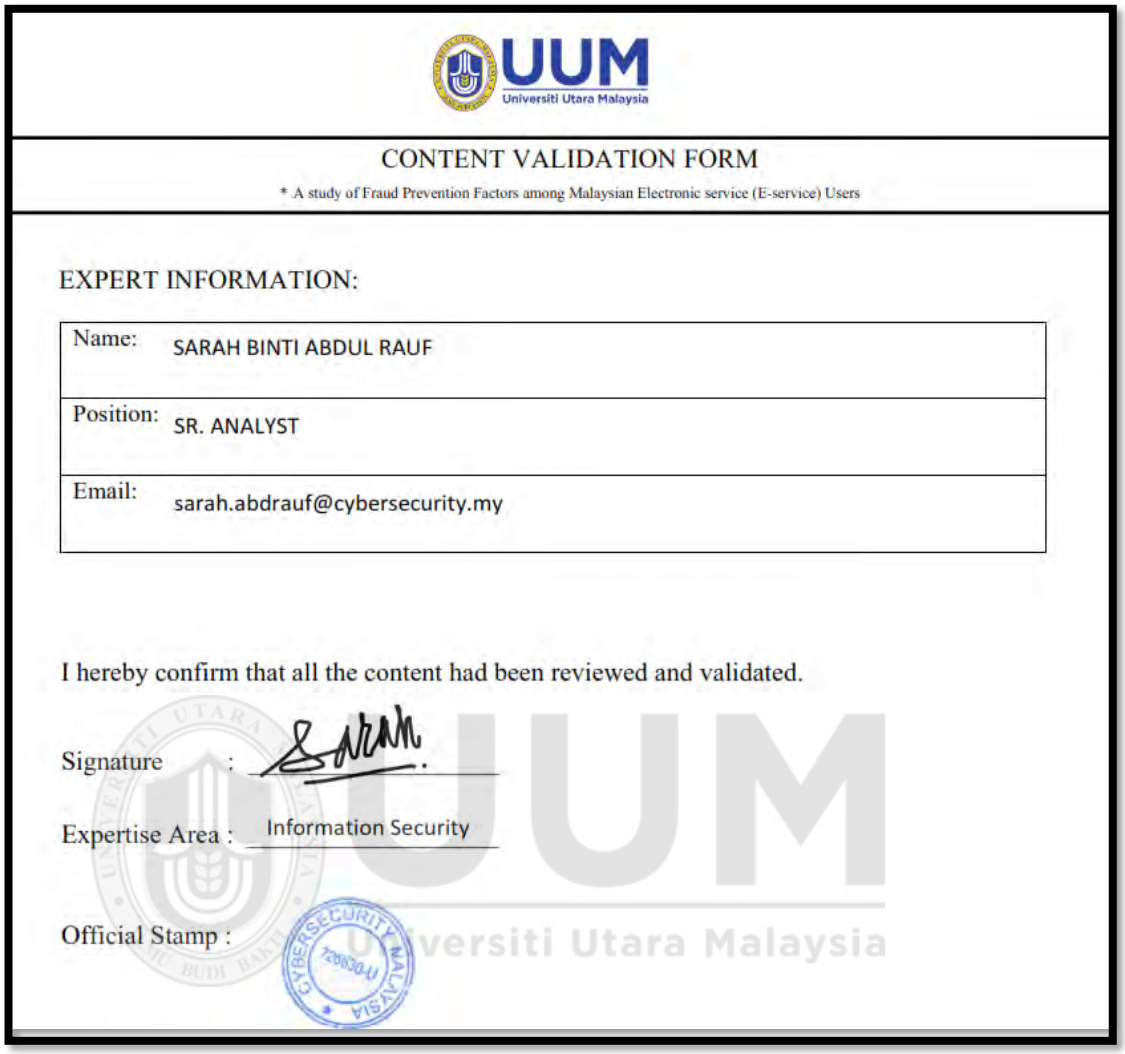
I hereby confirm that all the content had been reviewed and validated.

Signature : 

Expertise Area : Information Security

Official Stamp : 

Expert 3



CONTENT VALIDATION FORM

* A study of Fraud Prevention Factors among Malaysian Electronic service (E-service) Users

EXPERT INFORMATION:

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I hereby confirm that all the content had been reviewed and validated.

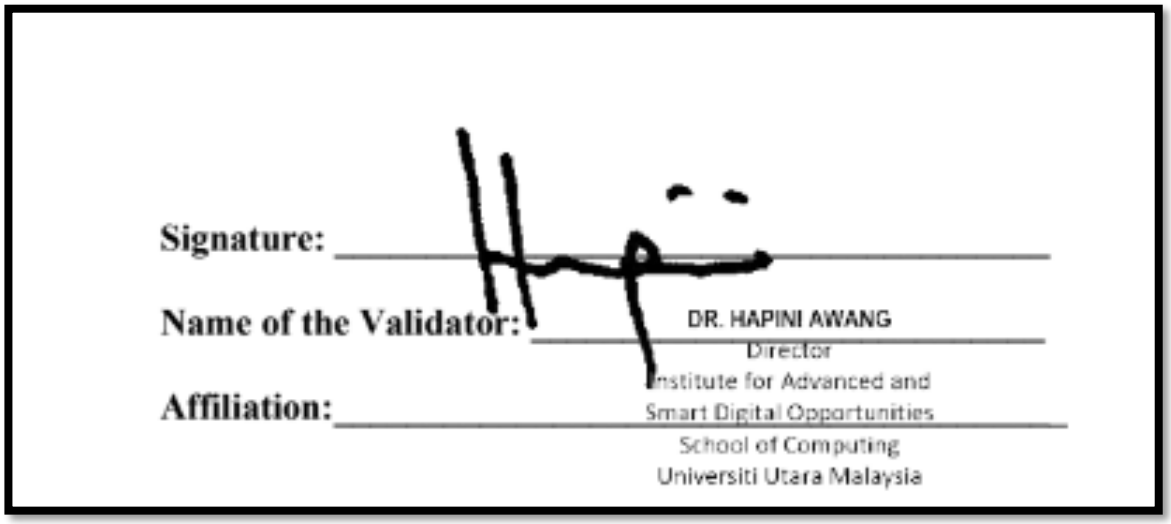
Signature : _____

Expertise Area : Information Security

Official Stamp :

Content Validity (University Expert)

Expert 1



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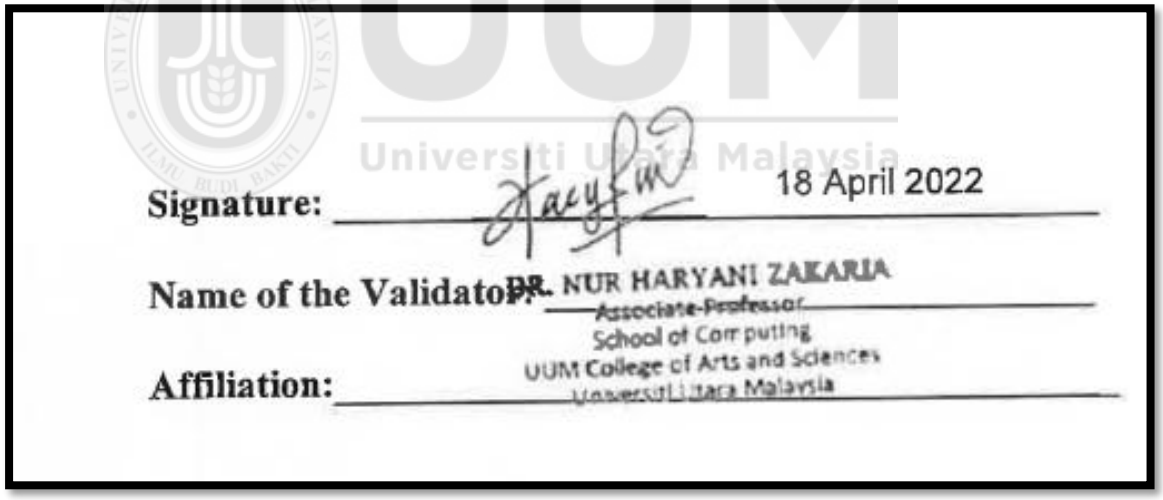

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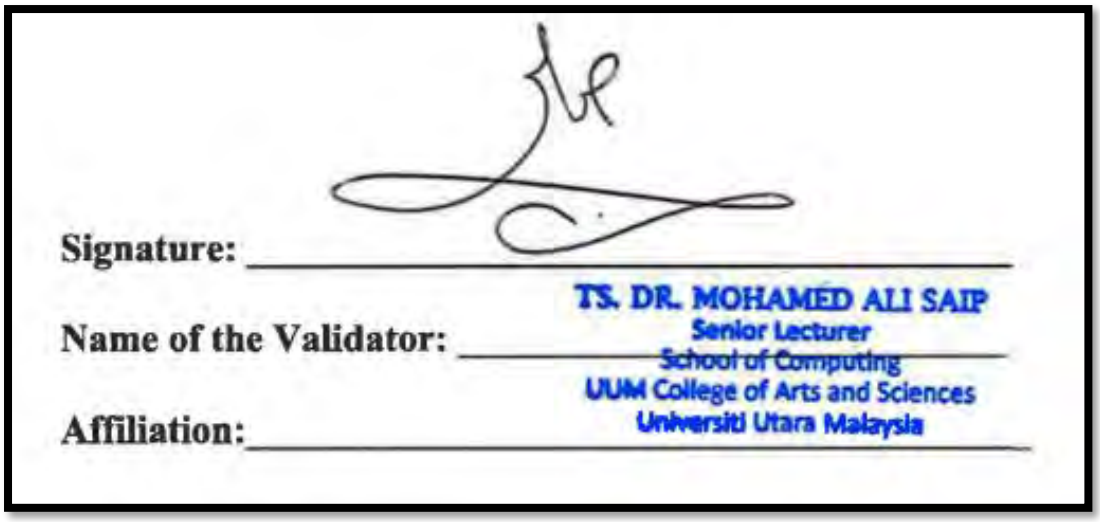

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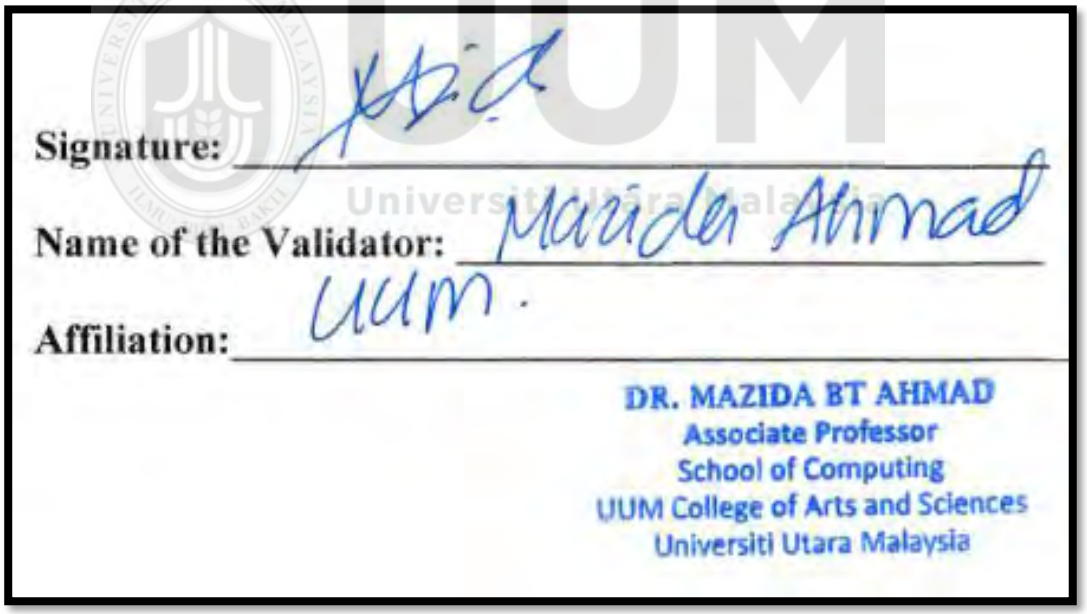

Questionnaire Distribution