

COMPARING SECURITY PRACTICES OF
WORKPLACE AND HOME: A CASE FOR
USIM STAFF

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USIM STAFF

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ABSTRACT

The development of Information and Communication Technologies (ICTs) is becoming very common throughout society. Therefore, it is a must to protect information asset. In addition to the technological aspect, research continues to confirm the need to enhance security awareness among employees. The objective of this study is to investigate the factors that may impact users' practice and awareness both in workplace and home. Specifically, factors such as policy, behaviour, training, knowledge of IT and education were tested. In addition, the second objective of this study is to investigate the information security awareness and practice level among the employees. To achieve the study objectives, a quantitative methodology was applied; specifically a survey instrument was developed to measure if each of the key factors has a significant association within the security awareness and practice both in workplace and home. 285 usable surveys were collected from USIM employees and analyzed using Bivariate/Pearson Correlation and Linear Regression to determine the relationship between the independent variable and the dependent variable. The findings of the study revealed that there was a positive correlation between policy, behaviour, training, knowledge of IT and education, with security awareness and practice both in workplace and home. However, Linear Regression tests yielded no significant relationship between training factor and security awareness and practice both in workplace and home. These results indicated that security awareness and practice level of employees' both in workplace and home are at high level. It is hoped that the present study provides initial step to focus on security training sessions among USIM employees to reflect new knowledge on the importance of security training to increase the knowledge of information security.

Keywords: Security awareness, Security practice, Workplace user, Home users.

ABSTRAK

Perkembangan Teknologi Maklumat dan Komunikasi (ICT) telah menjadi kelaziman terhadap masyarakat masa kini. Oleh itu, ia menjadi satu kemestian supaya asset dan maklumat dapat dilindungi. Selain daripada aspek teknologi, penyelidikan terus mengesahkan akan keperluan untuk meningkatkan kesedaran keselamatan di kalangan pekerja. Oleh itu, objektif kajian ini adalah untuk mengkaji faktor yang boleh memberi kesan kepada amalan dan kesedaran pengguna di tempat kerja dan juga di rumah. Secara khususnya, faktor-faktor seperti dasar, tingkah laku, latihan, pendidikan dan teknologi telah diuji. Selain itu juga, objektif kedua kajian ini adalah untuk menyiasat akan kesedaran keselamatan maklumat dan tahap amalan di kalangan pekerja sama ada praktis yang diamalkan di tempat kerja di gunakan di rumah atau tidak. Untuk mencapai objektif kajian yang dimaksudkan, kaedah "kuantitatif" digunakan yang mana instrument khas berbentuk soalan telah dibangunkan. Kajian ini berjaya mendapatkan responden seramai 285, yang terdiri daripada kakitangan USIM. Kaedah analisis seperti Bivariate/ Pearson Correlation dan Linear Regression digunakan untuk mengukur dan menentukan sejauh mana hubungan antara setiap factor yang dikaji. Secara amnya, hasil kajian menunjukkan bahawa terdapat hubungan yang positif antara dasar, tingkah laku, latihan, pengetahuan IT dan pendidikan dengan kesedaran keselamatan. Walau bagaimanapun, ujian Linear Regression mendapati tiada hubungan yang signifikan antara faktor latihan dan kesedaran keselamatan dan juga amalan kedua-dua di tempat kerja dan rumah. Keseluruhannya, keputusan yang diperolehi dari kajian ini menunjukkan bahawa kesedaran keselamatan dan tahap amalan pekerja di kedua-dua tempat kerja dan rumah berada pada tahap tinggi dan dapat disimpulkan bahawa perlakuan atau amalan keselamatan maklumat/komputer dipraktiskan. Adalah diharapkan kajian ini menyediakan langkah awal untuk memberi tumpuan kepada sesi latihan keselamatan di kalangan kakitangan USIM untuk memberi pengetahuan baru tentang kepentingan latihan keselamatan demi untuk meningkatkan pengetahuan mereka.

Kata kunci: Kesedaran keselamatan komputer, Amalan keselamatan komputer, Pengguna di tempat kerja, Pengguna di rumah.

ملخص البحث

تطور تكنولوجيا المعلومات (تكنولوجيا المعلومات والاتصالات) أصبحت شائعة جدا في جميع أنحاء المجتمع. وبالتالي، فإنه أمر لا بد منه حماية اصول المعلومات. بالإضافة إلى الجانب التكنولوجي، يستمر البحث لتأكيد الحاجة إلى تعزيز الوعي الأمني بين الموظفين. ولذلك، فإن الهدف من هذه الدراسة هو دراسة العوامل التي قد تؤثر على ممارسة المستخدمين والوعي على حد سواء في مكان العمل والمنزل. على وجه التحديد، تم اختبار عوامل مثل السياسة، والسلوك، والتدريب والتعليم والتكنولوجيا. وبالإضافة إلى ذلك، فإن الهدف الثاني من هذه الدراسة هو تحقيق الوعي بأمن المعلومات ومستوى الممارسة بين الموظفين. لتحقيق أهداف الدراسة، تم تطبيق المنهج الكمي؛ على وجه التحديد تم تطوير أداة مسح لقياس ما إذا كان كل من العوامل الرئيسية لديها ارتباط مهم مع التوعية الأمنية وممارسة على حد سواء في مكان العمل والمنزل. تم جمع 285 من المسوحات قابلة للاستخدام من موظفي USIM وتم تحليلها باستخدام معامل ارتباط بيرسون والانحدار الخطي لتحديد العلاقة بين المتغيرات المستقلة والمتغير التابع. وكشفت نتائج الدراسة أن هناك علاقة إيجابية بين السياسة والسلوك والتدريب والمعرفة تكنولوجيا المعلومات والتعليم مع الوعي الأمني وممارسة على حد سواء في مكان العمل والمنزل. ومع ذلك، أسفرت اختبارات الانحدار الخطي أنه لا توجد علاقة ذات دلالة إحصائية بين عامل التدريب والوعي الأمني والممارسة على حد سواء في مكان العمل والمنزل. وأشارت هذه النتائج إلى أن الوعي الأمني ومستوى ممارسة للموظفين على حد سواء في مكان العمل والمنزل هي على مستوى عالٍ. تأمل هذه الدراسة أن توفر خطوة أولية في التركيز على دورات التدريب الأمني بين موظفي USIM لتعكس المعرفة الجديدة على أهمية التدريب الأمني لزيادة المعرفة لأمن المعلومات.

كلمات البحث: الوعي الأمني، وممارسة الأمنية، المستخدمين في مكان العمل، المستخدمين المنزليين.

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LIST OF ABBREVIATIONS

HEIs	Higher Education Institutions
IHLs	Institutes of Higher Learning
MYCERT	Malaysian Computer Emergency Response Team
ICTs	Information and Communication Technologies
USIM	Universiti Sains Islam Malaysia
CIA	Confidentiality, Integrity and Availability
ISF	Information Security Forum
IT	Information Technology
ISMS	Information Security Management System
SETA	Security Education Training and Awareness
PP	Privacy policy
SPCB	Security Practice Care Behaviour
SPT	Security Practice Technology
IV	Independent Variable
DV	Dependent Variable
PPS	Centre for Graduate School
GOALS	Global Open Access Learning System
FPQS	Faculty of Qur'an and Sunnah
FEM	Faculty of Economics and Muamalat
FST	Faculty of Science & Technology
FPBU	Faculty of Major Languages Studies
SPSS	Statistical Package for the Social Sciences

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