

## Training And Recognition of The Importance of Cybersecurity For Umkm In Entering The Digital Market

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### ABSTRAK

Kecamatan Borobudur merupakan satu kecamatan yang berada di Kabupaten Magelang dengan 20 kelurahan. Dusun Ngaran I adalah salah satu dusun di kelurahan Borobudur, Kecamatan Borobudur dengan jumlah pelaku UMKM lebih dari 15 UMKM. UMKM Warung Asoy adalah UMKM di Dusun Ngaran I yang bergerak dalam bidang olahan snak susu kedelai. UMKM sendiri merupakan usaha produktif yang dimiliki perorangan maupun badan usaha yang telah memenuhi kriteria sebagai usaha mikro. Pandemi Covid-19 mendorong UMKM untuk menjalankan aktivitas usaha melalui platform digital. Begitu pula dengan pelaku UMKM Dusun Ngaran I. Untuk dapat bertahan dan tumbuh selama pandemi Covid-19, pelaku UMKM menjalankan aktivitas usaha melalui platform digital. Sehingga UMKM menjadi target yang potensial terhadap serangan keamanan siber. Kurangnya edukasi dan pengenalan cyber security, banyak pelaku UMKM belum menyadari bahaya ancaman serangan keamanan siber. Urgensi kegiatan ini yakni, maraknya serangan menasar UMKM secara tidak langsung merupakan efek dari pandemic Covid-19 yang mengharuskan untuk bergeser proses transaksi terutama jual beli dan promosi menggunakan media digital dan internet. Maka kegiatan ini sangat penting karena untuk

memberikan edukasi kepada UMKM terkait keamanan siber, sehingga dapat melakukan pencegahan terhadap ancaman serangan keamanan siber. Edukasi dan pelatihan yang diberikan adalah mengenali aset digital, pembaruan pertahanan keamanan, manajemen kata sandi, ancaman serangan phishing dan malware serta pencadangan dan pemulihan data. Tujuan kegiatan ini memberikan edukasi pelatihan dan pengenalan pentingnya keamanan siber bagi UMKM dalam memasuki pasar digital. Metode yang dilakukan adalah pelatihan dan pendampingan untuk mengetahui aset digital dan penerapan dasar-dasar keamanan siber dalam mencegah ancaman serangan siber.

### ABSTRACT

Borobudur district is a district located in Magelang district with 20 districts. Dusun Ngaran I is one of the dunes in Borobudur, with a number of UMKM perpetrators more than 15 UMKM. Asoy Warung UMKM is a UMKM in Dusun ngaran I that shakes in the field of processing of soy milk snakes. UMKM itself is a productive enterprise that is considered by individuals or enterprises that have met the criteria as a micro enterprise. The Covid-19 pandemic encourages UMKM to conduct business activities through digital platforms. So UMKM becomes a potential target for cyber security attacks. Lack of education and introduction to cyber security, many UMKM perpetrators are not aware of the threat of cyberattacks. The urgency of this activity is that the attacks targeting UMKM indirectly are the effect of the Covid-19 pandemic that requires to shift the process of transactions mainly sales and sales and promotions using digital media and the Internet. The education and training provided is to recognize digital assets, security defence updates, password management, threats of phishing and malware attacks as well as backup and data recovery. The objective of this activity is to provide training training and recognition of the importance of cyber capabilities for UMKM in entering the digital market. The methods carried out are training and support to know the digital asset and the application of the basics of cybersecurity in preventing cyber attacks..

## INTRODUCTION

Borobudur is one of the districts in Magelang District, Central Java, Indonesia where it is located most south of which directly borders with Yogyakarta Special District Province. The district is 4 km away from the town of Mungkid to the southern coast that is the capital of the district of Magelang and borders with the Tempuran district on the north, Mertoyudan district in the northeast, Muntilan and Ngluwar districts on the south-east side, while on the west side it borders the Salaman district, Salaman District and Tempuran District.(BPS magelang, 2021). Borobudur district has an area of 54.55 km<sup>2</sup> with a total of 20 villages. At Dusun Ngaran I there are about 15 UMKM perpetrators. UMKM (Micro Small Medium Enterprise) itself is a productive enterprise that is used by individuals and enterprises that have met the criteria as a micro enterprise (Prabowo MA, et al, 2023). UMKM Warung Asoy is an UMKM belonging to the mother of Siti Rahayu located in Dusun Ngaran I Rt/Rw 05/03, Kelurahan Borobudur, Boro Buru district. This UMKM is one of the UMKM at Dusun Buru I that moves in the field of processing snacks processed soya milk. To be able to survive and grow during the Covid-19 pandemic UMKM Warung Asoy runs business activities through digital platforms. (Katadata,2020;Tingly Y.M, et al, 2022). So UMKM becomes a potential target for cyber security attacks (Suartana, I. M. 2022; Tjakrawala F.X.K. et al, 2021). However, a minimum of knowledge about cybersecurity can become a gap and result in a loss of cyber risk (Nurani, N. et al, 2022; Satrio,J et al 2022). There is a lack of education and introduction related to cyber security to UMKM perpetrators, so many are not aware of the dangers of cyber attacks (F.X.K. 2021; Wicaksana, R.H,et al 2020). Therefore, UMKM offenders should be aware of cybersecurity risks so that the losses and risks of Internet use can be minimized (Wicaksana, R.H, et al 2020; Sahren, S.et al 2022). There are few observations of target partners that have ever heard about cybersecurity. While respondents are concerned about cysecurity, there are still target partners who are not concerned with cyberspace. Besides, some target partners are concerns about ciber security threats but are still confused about what actions should be taken either for prevention or countermeasures. With the training, it is also expected to improve the competitiveness of UMKM business, build new networks, and encourage the implementation of best practices in business operations. (Endrawati, T 2023). Based on the observations of the successor team together with the STMIK LPPM Bina Patria found two crucial problems and agreement shown in Table 1.

**Tabel 1. Crucial Problems**

No	Aspek	Crucial Problems
1	Digital security issues	a. lack of knowledge and awareness of the importance of cybersecurity and the risks of cyberattacks. b. not being aware of the significance of recognizing digital assets and security defence updates. c. not aware of password management and the threat of phishing and malware attacks against UMKM perpetrators. d. Lack of education related to cyber security includes methods of device security updates, password management, prevention of phishing and malicious software as well as backup and data recovery.
2	Digital Marketing Management Issues	a. Management management digital assets and email accounts are still very poor.

		b. Digital marketing management is still not supported with adequate security knowledge
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**METHOD**

Based on the analysis of the conditions of the situation, the objective conditions existing with the partners and the solution agreed together then the measures of settlement are as follows: Implementation methods in the field of digital security. In these activities, the methods of approach to be implemented are:

- a. Make a deposit on the advice and advice that exists on the target partner in carrying out business activities and transactions.
- b. Do a deposit of assets owned by target partners in particular assets in digital form.
- c. Do the first socialization on the importance of knowing the digital assets and updating the security defences of devices to target partners. In this case is a group of UMKM perpetrators on Dusun Ngaran, with UMKM Warung Asoy as the training center.
- d. In this case, it is expected to be able to stimulate partners in increasing productivity after socialization.
- e. Implementation of essential cyber security training including methods of device security updates, password management, prevention of phishing and malware as well as backup and data recovery.
- f. Implementation methods in management. The approach is as follows:
- g. Coordinate with target partners to carry out the deposition of digital assets and digital asset management as one of the variables to prevent cyber-risk.
- h. Set up tasks on partners in the activities of digital Asset Management and Password Management. c. Conduct coordination and training to partners to implement enhanced cyber security to prevent the risks of cyber attacks.

The implementation measures required to address the problems faced by the partners are as follows:



Figure 1. Gambaran tahapan pelaksann program.

The approach that will be used to solve the problem of partners is the method of community development, where the approach is oriented to the development of empowerment of the community by making the community as a subject, object and involvement directly in the various activities of dedication to be implemented. Socialization and coordination is carried out at the beginning of dedication activities, which is the provision of information to the target partner about the activities to be implemented, the objectives of the activities, the stages of implementation and the timetable of the implementation based between the successor team and

target partner. With the socialization performed is expected to partner the activities of the activity to be performed and motivated to carry out the activities and every programme of work has been agreed for the realization of the purpose of this activity.

b. Implementation of training 1) Stage I training: Developing cyber security issues, then providing training in theoretical understanding of cyber risks and reviewing the security toolkit that can be used. 2) Stage II training: This stage training, partners focus on identifying target partner digital assets as one of the digital wealth. 3) Stage III training: Password deployment and management to know the level of security of the password used as well as the methods of managing the password that can be used. Then the partners learn and implement phishing prevention and malware attacks as an attempt to minimize cyber attacks. The partners know and implement data backup and recovery methods in dealing with cyber-risk issues.

c. Programme Implementation Evaluation In the programme implementation evaluation phase, partners are also involved to assess the extent to which the program has been implemented, what impact has arisen after the implementation of various programmes of activities and how the level of the partner's ability before and after the operation and what needs to be upgraded and developed for future program activities. Of course, it is highly expected that there will be an increase in the knowledge of partners especially in security and preventing digital-based fraud.

Participation of partners The role of partners in the implementation of the activities programme is as follows:

- a. Provision of a place for socialization and training.
- b. Providing infrastructure in the knowledge of digital assets and security defences.
- c. Coordinating with UMKM actors in connection with the existence of a series of activities.
- d. Target partners play an active role in each activity program.
- e. The target partners are committed to implementing the basics of cybersecurity and transferring knowledge to other UMKM perpetrators.



Figure 2. Proses Pelatihan UMKM

**RESULT AND DISCUSSION**

The priority issues to be addressed are in the area of digital security and digital marketing management are as follows: Aspects and issues in the field of digital safety

1. Knowledge and awareness of the importance of cybersecurity and the risk of cyber attacks.
2. Awareness will be of the important recognition of digital assets and security defence updates.
3. Awareness of the management of passwords and threats of phishing and malware attacks against the perpetrators of UMKM.
4. Lack of education related to cyber security in particular methods of device security updates, password management, prevention of phishing and Malware as well as backup and data recovery.
5. Optimization in cybersecurity on digital marketing Based on these priority issues, this dedication aims to provide training and introduction to the importance of cyber security for UMKM village Ngaran I.

The focus of this dedications is to provide education related to knowing digital assets and security defence updates; Password management and preventing phishing and malware attacks; and optimize cyber safety in backup and data recovery. So it is hoped that UMKM Dusun Ngaran I will be able to understand the importance of cybersecurity management in digital platforms.

**Tabel 2. solusi dan target luaran**

No	Aspek dan Masalah	Solusi	Target Luaran
1	a. Digital security issues a. The importance of cybersecurity and the risk of cyber attacks. b. Identifying digital assets and security defence updates. c. Password management and threats of phishing and malware attacks against UMKM perpetrators. d. Cyber security related education in data backup and recovery. A. Digital marketing management issues. a. Digital asset management and e-mail accounts in digital marketing b. digital marketing is still not supported with adequate security knowledge.	Training and support of target partners on the importance of cybersecurity and the risk of cyberattacks. The target partners are the perpetrators of UMKM Dusun Ngaran I based on UMKM Asoy. At the moment, there is no awareness of the cyber risks and losses resulting from the threat of cyber attacks. The purpose of this training and support is as a first step to raise awareness of the importance of cybersecurity for UMKM perpetrators.	Enhancing the capabilities of UMKM perpetrators in the basics of cybersecurity through an understanding of the importance of cyber security and cyberattack threat risks. (100%)

2	<p>a. Digital security issues</p> <p>a. The importance of cybersecurity and the risk of cyber attacks</p> <p>b. Identifying digital assets and security defence updates.</p> <p>c. Password management and threats of phishing and malware attacks against UMKM perpetrators.</p> <p>d. Cyber security related education in data backup and recovery.</p> <p>A. Digital marketing management issues.</p> <p>a. Digital asset management and e-mail accounts in digital marketing</p> <p>b. digital marketing is still not supported with adequate security knowledge.</p>	<p>b. Recognition of digital assets and security defence updates Training and support in digital asset recognition and security defenses updates. Currently there is no awareness of the threat of cyber attacks against digital property, so the target partner needs to identify the digital property. It's a preliminary step towards minimizing the threat of cyberattacks and the losses they cause. Further support and training related to the security defence updating of the device as one of the cyber-attack prevention efforts.</p>	<p>Improved capabilities and skills in developing a secure digital asset management and marketing strategy where 90% of participants know how to manage social media assets.</p>
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Figure 3. Rangkain Kegiatan

To carry out the evaluation of the program implementation and the continuity of the programme in the field after the activities are carried out are:

- a. Implementation of integrated community dedication activities in collaboration with faculty and students to the perpetrators of UMKM Ngaran I periodically using the internal funding of PT with UMKM Warung Asoy as a central coordination.
- b. Improvement of research activities that collaborate with the lecturers and the students to UMKM Waran I using internal financing of the PT with the UMKM warung As a coordination centre in the development of appropriate technological, especially in the area of information technology and computer.

- c. Collaboration with local government agencies and other relevant parties that have the program of empowerment of talents, its purpose in the areas of development of information technologies and cybersecurity.

## **CONCLUSION**

With this training, the target partner is able to identify the digital assets it owns and perform verification of its specific email account through a data verification platform. It aims to find out whether the email address used was hacked or not. However, the forms of activity are to know and recognize digital assets; Security Defence Updates; Password Management and Two-Factor Authentication (2FA); Identify and Prevent Phishing and Malware; Optimize Cybersecurity; Data Exposure and Recovery as well as Cyber Security Toolkit.

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