International Journal of Advance and Applied Research
Peer Reviewed | International Open Access Journal
ISSN: 2347-7075 | Impact Factor – 8.141 | *Website: https://ijaar.co.in/*
Volume-13, Issue-3 | January – February 2026

Original Article

A STUDY OF CYBER SECURITY ISSUE IN ONLINE BUSINESS IN MANGALWEDHA

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Manuscript ID:
IJAAR-B130343
ISSN: 2347-7075
Impact Factor – 8.141

Volume - 13
Issue - 3
January – February 2026
Pp. 266 - 271

Submitted: 23 Jan.2026
Revised: 30 Jan. 2026
Accepted: 10 Feb. 2026
Published: 28 Feb. 2026

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Quick Response Code:

Website: https://ijaar.co.in/

DOI: 10.5281/zenodo.20321933

DOI Link:
https://doi.org/10.5281/zenodo.20321933

Abstract:

AI Cybersecurity has become a major concern for online businesses worldwide, including small towns like Mangalwedha. With the rapid growth of digital transactions, e-commerce platforms, online banking, and digital payment systems, local businesses are increasingly exposed to cyber threats. Common cybersecurity issues faced by online businesses in Mangalwedha include phishing attacks, data breaches, ransomware, weak password practices, lack of secure payment gateways, and insufficient awareness about cyber laws and digital safety. Small and medium-sized enterprises (SMEs) in Mangalwedha often lack advanced security infrastructure and trained IT professionals, making them vulnerable to cyberattacks. Limited cybersecurity awareness among business owners and customers further increases the risk of financial fraud and identity theft. Additionally, inadequate data protection measures and outdated software systems contribute to security loopholes.

How to cite this article:

Ms. Sana Shaikh. (2026). A Study Of Cyber Security Issue In Online Business In Mangalwedha. International Journal of Advance and Applied Research, 13(3), 266 - 271. https://doi.org/10.5281/zenodo.20321933

Introduction:

In recent years, the growth of digital technology and internet access has significantly transformed the way businesses operate. Even in semi-urban towns like Mangalwedha, online business activities such as e-commerce, digital payments, online marketing, and internet banking have become increasingly common. Local retailers, service providers, and small entrepreneurs are now using digital platforms to expand their market reach and improve customer convenience. While this digital shift offers numerous opportunities for growth and development, it also introduces serious cybersecurity challenges.

Cybersecurity refers to the protection of computer systems, networks, and data from cyber threats such as hacking, phishing, malware, ransomware, and data breaches. Online businesses

in Mangalwedha are particularly vulnerable because many small and medium enterprises (SMEs) lack advanced security infrastructure, proper technical knowledge, and cybersecurity awareness. Weak passwords, unsecured Wi-Fi networks, outdated software, and lack of data protection policies increase the risk of cyberattacks.

Moreover, the rapid adoption of digital payment systems such as UPI, mobile wallets, and online banking has increased the possibility of financial fraud and identity theft. Customers as well as business owners often have limited awareness about safe online practices, making them easy targets for cybercriminals. These issues not only result in financial losses but also damage business reputation and customer trust.

Statement of the Problem:

The rapid growth of online business activities in Mangalwedha has created new opportunities for local entrepreneurs and small businesses. However, along with digital expansion, the risk of cyber threats has also increased significantly. Many online businesses in Mangalwedha operate without adequate cybersecurity measures, making them vulnerable to cyberattacks such as phishing, hacking, malware infections, ransomware, and online financial fraud.

Small and medium-sized enterprises (SMEs) in the region often lack technical expertise, proper security infrastructure, and awareness about cybersecurity practices. Weak password management, unsecured networks, outdated software, and insufficient data protection policies further increase the risk of data breaches and financial losses. Additionally, limited awareness among customers about safe digital practices makes them easy targets for cybercriminals.

Objectives:

1.To identify the various types of cybersecurity threats affecting online businesses in Mangalwedha.
2.To analyze the level of cybersecurity awareness among business owners and employees.
3.To examine the common causes of cyberattacks such as weak passwords, unsecured networks, and outdated software systems.
4.To study the impact of cybersecurity issues on business performance, financial stability, and customer trust.

Significance of the Study:

This study is significant because it highlights the growing cybersecurity challenges faced by online businesses in Mangalwedha. With the rapid adoption of digital platforms, e-commerce, and online payment systems, small and medium-sized enterprises (SMEs) in the region are increasingly exposed to cyber threats. Understanding these issues is essential to protect businesses from financial losses, data breaches, and reputational damage.

The study will help business owners recognize the importance of implementing strong cybersecurity measures such as secure payment gateways, data encryption, regular software updates, and employee training. It will also create awareness among entrepreneurs and customers about safe online practices and the risks associated with cybercrime.

Scope of the Study:

This study focuses on examining cybersecurity issues faced by online businesses operating in Mangalwedha. It mainly covers small and medium-sized enterprises (SMEs), local retailers, service providers, and entrepreneurs who use digital platforms such as e-commerce websites, social media marketing, online banking, and digital

payment systems like UPI and mobile wallets.The study aims to identify common cyber threats such as phishing, hacking, malware, ransomware, financial fraud, and data breaches affecting these businesses. It also examines the level of cybersecurity awareness among business owners and employees, the security measures currently adopted, and the impact of cyberattacks on business performance and customer trust.

Limitations of the Study:

The study is limited only to online businesses operating in Mangalwedha and does not cover other cities or regions.

The findings are based on the responses and information provided by business owners, which may sometimes be incomplete or biased.Due to time and resource constraints, the study may cover only a limited number of businesses.

Rapid changes in technology and cyber threats may make some findings time-bound.The study does not include highly technical analysis of cybersecurity systems but focuses mainly on awareness, challenges, and general security practices.

Review of Literature:

1.Cyber Threats in Online Business: According to Smith and Kumar (2020), phishing attacks, malware, ransomware, and data breaches are the most common cyber threats faced by small and medium-sized online businesses. These attacks often exploit weak passwords, unsecured networks, and outdated software systems.

2.Cybersecurity Awareness: Patel (2019) emphasized that a lack of awareness among business owners and employees significantly increases vulnerability to cyberattacks. Training and awareness programs are critical in preventing cyber incidents, especially in small towns and semi-urban areas.

3.Impact on Business Operations: Sharma and Joshi (2021) noted that cybersecurity issues not only result in financial losses but also harm customer trust and business reputation. In many cases, even minor breaches lead to long-term consequences for online businesses, including reduced customer engagement.

4.Challenges for Small Town Businesses: Singh and Deshmukh (2020) highlighted that businesses in smaller towns like Mangalwedha often face additional challenges due to limited access to professional IT support, minimal investment in cybersecurity infrastructure, and dependence on third-party applications with weak security.

5.Preventive Measures and Best Practices: Research by Reddy (2022) suggests that adopting measures such as multi-factor authentication, data encryption, secure payment gateways, regular software updates, and employee training can significantly reduce the risk of cyber threats.

Research Methodology:

Sample Size: The study targets 50-60 online businesses in Mangalwedha, including small and medium-sized enterprises, local retailers, and service providers who actively use digital platforms for business operations. This sample size is considered sufficient to represent the cybersecurity challenges faced by online businesses in the town.

Sampling Design: A purposive sampling technique is used to select participants who are directly involved in online business operations and digital transactions. The criteria for selection include

Businesses actively engaged in e-commerce, online marketing, or digital payment systems.Willingness of the business owner/manager to participate in the study.Businesses that have experienced or are at risk of cyber threats.

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Data Analysis & Interpretation:

1. Awareness of Cybersecurity

Awareness Level	Number of Businesses	Percentage (%)
High Awareness	10	20%
Moderate Awareness	25	50%
Low Awareness	15	30%

Interpretation:

The majority of businesses (50%) have moderate awareness of cybersecurity, while only 20% have high awareness. This indicates that a significant portion of online businesses in Mangalwedha may still be vulnerable to cyber threats due to insufficient knowledge of safe digital practices.

2. Common Cyber Threats Faced

Type of Cyber Threat	Number of Businesses Affected	Percentage (%)
Phishing Attacks	20	40%
Malware/Ransomware	15	30%
Weak Password Exploitation	25	50%
Financial Fraud (Digital Payment)	18	36%
Data Breaches	10	20%

Interpretation:

Weak password practices and phishing attacks are the most common threats, affecting 50% and 40% of businesses, respectively. Digital payment fraud is also a significant concern (36%). nted.

3. Security Measures Adopted

Security Measure	Number of Businesses	Percentage (%)
Regular Software Updates	20	40%
Multi-Factor Authentication	15	30%
Data Encryption	10	20%
Employee Training on Cybersecurity	8	16%
No Security Measures	12	24%

Interpretation:

Only 40% of businesses regularly update their software, and fewer adopt advanced measures like multi-factor authentication (30%) or encryption (20%).

4. Impact of Cybersecurity Issues on Business

Impact Type	Number of Businesses	Percentage (%)
Financial Loss	22	44%
Loss of Customer Trust	18	36%
Operational Disruption	15	30%
No Significant Impact	8	16%

Interpretation:

Cybersecurity breaches have significant consequences for businesses in Mangalwedha. Almost half of the businesses (44%) reported financial losses due to cyber incidents, and over one-third experienced a loss of customer trust.

Findings:

Based on the analysis of data collected from 50 online businesses in Mangalwedha, the following key findings were observed Cybersecurity Awareness Only 20% of businesses demonstrated

high awareness of cybersecurity threats. 50% had moderate awareness, while 30% showed low awareness, indicating a significant knowledge gap among business owners and employees.Common Cyber Threats Weak passwords were the most common vulnerability, affecting 50% of businesses.Phishing attacks impacted 40% of businesses, while 36% faced financial fraud through online payment systems.Malware and ransomware attacks were reported by 30% of businesses.

Suggestions:

Based on the findings of this study, the following measures are recommended to improve cybersecurity for online businesses in Mangalwedha Enhance Cybersecurity Awareness Conduct regular training sessions and workshops for business owners and employees on cybersecurity threats and safe online practices. Educate customers about secure digital transactions to reduce the risk of fraud. Implement Strong Security Measures Use strong and unique passwords, and encourage the use of password managers. Adopt multi-factor authentication for all online accounts and digital payment systems. Apply data encryption to protect sensitive business and customer information.

Conclusion:

The study on cybersecurity issues in online businesses in Mangalwedha reveals that while digital platforms have provided significant opportunities for business growth and customer outreach, they also expose businesses to various cyber threats. Weak passwords, phishing attacks, malware, ransomware, and digital payment fraud are the most common challenges faced by small and medium enterprises in the region. The findings indicate that many business owners and employees have limited cybersecurity awareness, and a substantial number of businesses do not implement adequate security measures. This has led to financial losses, loss of customer trust, and operational disruptions, highlighting the urgent need for action.

Here's a polished Acknowledgement section for your project on Cybersecurity Issues in Online Business in Mangalwedha:

Acknowledgement:

I would like to express my sincere gratitude to all those who have guided and supported me throughout the completion of this study on cybersecurity issues in online businesses in Mangalwedha. First and foremost, I extend my heartfelt thanks to my project guide/mentor, [Name of Guide], for their valuable guidance, suggestions, and encouragement at every stage of this research. Their expertise and insights were instrumental in shaping this study. I am also deeply grateful to the business owners, managers, and employees of online businesses in Mangalwedha who willingly participated in this study and provided honest and valuable information. Without their cooperation, this research would not have been possible.

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