

Original Research Article

Awareness of Privacy Law Among Supermarket Owners: A Study of Video Surveillance Practices in Dar es Salaam, Tanzania

Abstract

The widespread installation of video surveillance systems in supermarkets has facilitated unprecedented collection and analysis of personal data, raising significant concerns regarding customer privacy rights. Despite this extensive data collection, supermarket owners exhibit limited compliance with existing privacy legislation. This study examined the awareness of privacy law among supermarket owners utilizing video surveillance systems, grounded in legal realism theory and employed a qualitative research design. Data were collected through structured interviews with a sample of 60 respondents selected through snowball sampling. Thematic analysis was employed to analyze the collected data. The findings revealed that the majority of supermarket owners use video surveillance primarily for security purposes, with only a few utilizing it to analyze customer purchasing trends and preferences. However, their understanding and awareness of privacy law remain limited. Based on these findings, it is recommended that targeted awareness campaigns, training programs, and clear regulatory guidance be implemented to assist supermarket owners in complying with the Personal Data Protection Act No. 11 of 2022.

Keywords: Awareness of Privacy law, Supermarket Owners, Video Surveillance Systems, Legal Realism Theory

1.0 Introduction

The widespread deployment of video surveillance systems has become a common practice in the retail sector, particularly within supermarket environments. Given the significant implications for customer privacy, awareness and compliance with privacy laws governing the usage of these surveillance technologies is of paramount importance. Supermarkets have been at the forefront of the adoption of video surveillance systems, with the primary goal of enhancing security, preventing theft, and improving operational efficiency (Darwish, 2025). However, the extensive use of video surveillance systems such as Closed-Circuit Television (CCTV) camera and IP-Based Video Surveillance Systems in supermarkets has also raised concerns about the potential infringement of customers' privacy rights (Lei & Ngan, 2024). The right to privacy is a fundamental human right, recognized in various international and national legal frameworks, such as the Universal Declaration of Human Rights and the European Convention on Human Rights (Beyrer *et al.*, 2024). In the context of video surveillance systems, the right to privacy encompasses the protection of individuals' personal information, their freedom from unwanted observation, and their autonomy in making decisions about the disclosure of their personal data (Aftab, 2024). Personal data under European Union's General Data Protection Regulation (GDPR) of 2018 is defined as “Any information relating to an identified or identifiable natural person ('data subject'); an identifiable natural person is one who can be identified, directly or indirectly, in particular by reference to an identifier such as a name, an identification number, location data, an online identifier or to one or more factors specific to the physical, physiological, genetic, mental, economic, cultural or social identity of that natural person. The right to privacy has become increasingly prominent with the proliferation of video surveillance systems, particularly in retail industry such as supermarkets (Kavoliūnaitė, 2024). Video surveillance systems refer to the use of video cameras to monitor and record activities in a specific area or environment (Elharrouss *et al.*, 2021). Its usage in supermarket has enabled unprecedented monitoring of store and prevent theft or any other security incidents (Jenneson *et al.*, 2022). While it offers valuable benefits in terms of security, asset protection also poses a significant threat to individual privacy rights. The right to privacy is articulated in The Tanzanian Personal Data Protection Act (PDPA), 2022. At the core is the principle of consent, which guarantees individuals the right to provide explicit approval before their personal data can be collected and processed by organizations. The PDPA, 2022 also emphasizes purpose limitation,

mandating that personal data be gathered and used only for specific, explicit, and legitimate purposes, as clearly communicated to the data subject. Complementing this, the law upholds the principle of data minimization, requiring organizations to collect only the minimum amount of personal information necessary to fulfill the stated objectives. Crucially, the Act mandates the implementation of appropriate technical and organizational measures to ensure the security and confidentiality of personal data. Additionally, the law enshrines the data subject's rights to access, rectify, delete, and restrict the processing of their personal information. Lastly, the law places restrictions on the cross-border transfer of personal data, necessitating specific safeguards to maintain an adequate level of data protection when moving information outside of Tanzania¹.

To address the growing need to protect individual privacy and ensure the responsible handling of personal information, several countries worldwide have taken legislative steps to enact laws and regulations aimed at safeguarding personal data and privacy rights. In Europe, the General Data Protection Regulation (GDPR) has become a landmark piece of legislation, establishing a comprehensive framework for the protection of personal data. The GDPR imposes strict requirements on organizations, including those in the retail sector, regarding the collection, processing, and storage of personal information. Similarly, in the United States, the California Consumer Privacy Act (CCPA) and the recently enacted Virginia Consumer Data Protection Act (VCDPA) have introduced new data privacy standards, granting individuals greater control over their personal information. South Africa has also taken significant steps in this direction, with the implementation of the Protection of Personal Information Act (POPIA), which regulates the processing of personal information and requires organizations to obtain consent for data collection and usage.

To address the growing need to protect individual privacy and ensure the responsible handling of personal information, the government of Tanzania enacted the Personal Data Protection Act (PDPA) in 2022. This legislation establishes a comprehensive framework of rights and obligations for both data subjects and data controllers, seeking to protect right to privacy throughout the country for personal data collected and processed by both public and private entities. The act ensures that the collection, storage, and use of personal data are done in a lawful, fair, and transparent manner, with the consent of the data subject. Additionally, the PDPA seeks to safeguard

¹ Section 5 of PDPA, 2022

the privacy rights of individuals and empower them with control over their personal information. Furthermore, the act promotes responsible data governance practices and facilitates the regulation and enforcement of data protection regulations in Tanzania. The mushrooming of video surveillance systems in supermarkets raises questions about the sector's compliance with the Personal Data Protection Act (PDPA) of 2022. Thus, this study specifically assessed the awareness of privacy law among supermarket owners who are using video surveillance systems in Tanzania.

2.0 Literature Review

The use of video surveillance systems has become increasingly prevalent in the retail sector, particularly within supermarkets (Elnahla & Neilson, 2021). Video surveillance systems refer to the technology that utilizes video cameras to monitor and record activities within a designated area or environment. These systems involve the strategic placement of multiple cameras to capture footage of various locations, such as entrances, exits, aisles, and checkout counters in a supermarket or retail setting (Vennam *et al.*, 2021). This proactive approach is driven by a desire to enhance the overall security of their establishments, deter and detect criminal activities such as theft, and optimize the efficiency of their operational processes (Jose *et al.*, 2024). Video surveillance systems in supermarkets can range from basic analog CCTV cameras to more sophisticated digital IP-based cameras with features like high-definition resolution, night vision, motion detection, and integration with advanced analytics software (Al-Hashemi *et al.*, 2024). While the widespread adoption of video surveillance systems in supermarkets has enabled enhanced security, theft prevention, and operational optimization, it has also sparked considerable concerns regarding the protection of customer privacy rights (Devkota, 2024). The right to privacy is a fundamental human right, recognized in various international and national legal frameworks (United Nations, 1948; Council of Europe, 1950). The increasing reliance on video surveillance systems in supermarket settings has heightened the need to carefully balance the benefits of enhanced security and operational efficiency with the fundamental right of customers to privacy and the responsible handling of their personal data (Jeremiah *et al.*, 2024). This includes the right of individuals to control the collection, use, and dissemination of their personal information, such as their identity, contact details, purchase history, and other sensitive data². Literature shows complex interplay between the use of CCTV surveillance systems in supermarkets and the

² Section 4 of PDPA, 2022

corresponding impact on customer privacy rights and revealed the need for balancing the tension between the security benefits and the pressing concerns over customer privacy (Wang *et al.*,2024). Study shows that the comprehensive surveillance infrastructure and Surveillant assemblage can induce a panoptic effect, wherein customers feel constantly observed and their fundamental right to privacy is significantly compromised, undermining their sense of personal autonomy (Chan *et al.*,2024). Compliance with relevant privacy laws and regulations can empower customers by providing them with greater transparency and control over how their personal data is collected, processed, and utilized within the supermarket environment, thereby reinforcing their sense of privacy and autonomy (Lei *et al.*,2024). For instance, the European Union's General Data Protection Regulation (GDPR) has emerged as a comprehensive framework that sets the standard for data privacy and protection globally. Enacted in 2018, GDPR establishes a robust set of principles and rights that aim to safeguard the personal information of individuals, including supermarket customers. At the core of GDPR are foundational principles such as purpose limitation, data minimization, storage limitation, and transparency, which require organizations to collect and process personal data only for legitimate and specific purposes, limit the data collected to what is necessary, retain the data for no longer than required, and provide clear information to data subjects about how their information is being used. Additionally, GDPR enshrines the right of individuals to access their personal data, request its rectification or erasure, and object to certain processing activities. This far-reaching regulation serves as a guiding light for national data protection laws across Europe and beyond, ensuring that the fundamental right to privacy is upheld in the digital age, even as supermarkets and other businesses seek to leverage technology for security and operational benefits (GDPR,2018).

Ensuring that both supermarket operators and customers are well-informed and cognizant of the applicable privacy laws and regulations is vital for the effective and responsible implementation of surveillance technologies (Ge,2025). While ignorance of the law is not an acceptable excuse, proactively fostering comprehensive awareness and understanding of relevant privacy regulations among both supermarket staff and customers is vital, as opposed to the reactive approach of waiting for potential lawsuits or enforcement actions that could ultimately undermine customer trust and the overall retail experience. In the context of Tanzania, the recently enacted Personal Data Protection Act (PDPA) of 2022 provides a regulatory framework for the collection and processing of personal data, including that obtained through CCTV surveillance (URT, 2022). The

PDPA,2022 establishes principles of consent, purpose limitation, and data minimization, requiring supermarkets to obtain explicit approval from customers before collecting their personal information and to use it only for legitimate, specified purposes³. The rapid advancement of surveillance technologies and artificial intelligence systems employed within the supermarket raises significant questions about the awareness and practical compliance of supermarket owners with the PDPA, 2022 so as to effectively safeguard customer privacy and autonomy in the face of such sophisticated and pervasive data collection and analytical capabilities.

2.1 Theoretical Literature Review

This study is grounded in legal realism theory developed by Llewellyn and Frank (1930), which emphasizes the importance of understanding law through its practical application and the real-world situations in which it operates. According to this theory, laws cannot be fully comprehended by merely analyzing statutes or legal principles in isolation. Instead, a thorough examination is required to understand how laws function in practice and how they are interpreted by those they affect. Legal realism asserts that regulatory bodies and legal practitioners play a crucial role in shaping the understanding and enforcement of laws. By applying legal realism to this study, we gain a comprehensive understanding of the interplay between awareness of privacy laws and the real-world practices of supermarket owners utilizing video surveillance systems. This theoretical framework highlights the significance of awareness regarding privacy laws and emphasizes the necessity of analyzing laws as they manifest in everyday life.

The application of legal realism theory has been demonstrated across various studies, showcasing its validity and reliability in this study. For instance, in the study titled *Transcendental Law and Legal Reform in the Digital Era* (Isman et al., 2024), the authors explore how legal frameworks adapt to the challenges posed by digital technologies, emphasizing the need for laws to be interpreted and applied in ways that reflect real-world circumstances. This aligns with legal realism's core tenet that laws must be understood through their practical implementation. Similarly, the research *Rethinking Law in an Era of Populism and Social Movements* (Omari et al., 2024) illustrates how legal realism can provide insights into the dynamic relationship between law and societal changes. The authors argue that understanding legal responses to populism and social movements requires an examination of laws in action, further supporting the relevance of legal

³ Section 1 and 4 of PDPA,2022

realism in analyzing contemporary legal challenges. Furthermore, the study *Paradigm of Justice in Law Enforcement: Philosophical Dimensions of Legal Positivism and Legal Realism* (Nuridin and Turdiev, 2021) delves into the philosophical underpinnings of legal realism, contrasting it with legal positivism. This examination reinforces the significance of legal realism in understanding law enforcement practices and justice, emphasizing that laws are not merely abstract principles but are deeply rooted in societal practices and interpretations. These studies collectively affirm the robustness of legal realism as a theoretical framework of this study as it better appreciate the practical implications of legal awareness and compliance.

3.0 METHODOLOGY

The study employed a qualitative research method to gain deeper insights into supermarket owners' awareness of privacy laws. This research was conducted in Dar es Salaam, Tanzania, the country's economic hub which hosts a large number of supermarkets and retail establishments, making it an ideal location to examine how supermarket owners navigate privacy laws amid increasing surveillance practices. The study specifically targeted supermarket owners, recognizing that these businesses engage in daily interactions with a large volume of customers. This high foot traffic raises unique privacy concerns related to customer data and behavior monitoring, making it essential to understand how owners are aware of privacy law while utilizing surveillance systems.

To select the sample for the study, the researchers employed the snowball sampling technique, which proved effective in reaching supermarket owners who might otherwise be difficult to access. This approach allowed initial participants to refer other potential participants, thereby expanding the sample size through established networks until a sample size of 60 was reached, at which point the researchers determined that data saturation had been achieved, indicating that no new themes or insights were emerging from the data. For data analysis, thematic analysis was employed to systematically identify and analyze patterns within the qualitative data collected from the interviews. This method facilitated the identification of themes related to supermarket owners' awareness of privacy laws.

4.0 FINDINGS AND DISCUSSION

This section presents the findings from the thematic analysis conducted on the awareness of privacy laws among supermarket owners in Dar es Salaam, Tanzania, who utilize video

surveillance systems. The analysis was based on several key themes which included purpose of Video Surveillance, Understanding of Privacy Laws, Attitudes Toward Customer Consent, Implementation of Privacy Practices, Training and Resources, Stakeholder Engagement

4.0.1 Purpose of surveillance system

The finding of the study revealed that most of Supermarket owners uses surveillance system for security and theft prevention. Several participants emphasized the role of surveillance in creating a safer shopping environment. As one respondent said, "*Surveillance system has helped us reduce theft significantly*" (Respondent 10). However, a few respondents noted that they also utilized surveillance system to analyze customer trends and preferences. They viewed surveillance footage as a valuable tool for understanding shopping behaviors, identifying popular product placements, and optimizing store layouts. One of respondent said, "*We use the surveillance system footage not just for security but also to see which areas attract more customers, helping us make informed decisions about product displays.*"(Respondent 59) The dual purpose of surveillance systems of serving both security and theft prevention as well as analyzing customer trends and preferences highlights the critical importance of understanding privacy laws for supermarket owners. Under data protection principles, one of the fundamental rights of data subjects is the right to be informed about the purpose of their collected data. This principle is crucial for ensuring transparency and accountability in data processing.⁴

4.0.2 Understanding of Privacy Laws

Findings of the study noted a remarkable limited understanding of specific privacy laws that protect and regulate collection, processing and usage of personal data. Among of the respondent said that "*I have surveillance system but I am not aware of exact law governing privacy law*" (Respondent 20). This lack of familiarity can be attributed to the Personal Data Protection Act No. 11 of 2022 recent implementation, which may not yet have been widely disseminated or fully integrated into the practices of businesses. As a result, many individuals and organizations remain unaware of their obligations and rights under this new legislation, highlighting the need for increased education and awareness initiatives to promote compliance and protection of personal data. However, while many respondents showed limited understanding on of privacy law, they generally have a better understanding of cybercrime laws. Many recognized the importance of

⁴ Section 1 of PDPA, 2022

protecting their information systems and customer data from cyber threats, indicating an awareness of the broader implications of data security. One respondent affirmed that, "*We are aware of cybersecurity law and we comply with it because we know how damaging cybercrime can be to our business.*"(Respondent 5). This suggests that although limited understanding of privacy law, there is a recognition of the critical need to safeguard against cyber-related risks.

4.0.3 Attitudes Toward Customer Consent

The issue of customer consent has become a significant concern. Most of the respondents recognized that their customers are not adequately informed about the use of their personal data or asked to provide consent. Among of respondent said "*We simply use surveillance systems without informing customers or obtaining their consent, operating under the assumption that they understand surveillance systems such as CCTV cameras are intended solely for security purposes.*" (Respondent 45). Respondents expressed uncertainty about whether customers explicitly consent to being recorded by surveillance systems. The general sentiment was that the presence of cameras is assumed, but this raises ethical concerns about informed consent. Despite these advantages, the use of surveillance system for analyzing customer behavior raises significant concerns regarding the lack of consent. While owners may argue that surveillance is beneficial for enhancing the shopping experience and improving store operations, the absence of explicit customer consent for such data collection can lead to ethical and legal issues. Customers may not be aware that their movements and behaviors are being monitored for purposes beyond security, which can infringe upon their privacy rights. This lack of transparency can result in customers feeling uneasy or violated, potentially damaging trust between the retailer and its clientele. As per section 4 of PDPA,2022, without proper consent, supermarket owners can face legal repercussions, including violations of privacy laws that mandate customer consent before collecting his/her personal information for surveillance. Therefore, while utilizing surveillance system for trend analysis can provide valuable insights, it is crucial for supermarket owners to be aware of privacy law so as to balance these benefits with the ethical obligation to obtain customer consent and ensure transparency in their surveillance practices.

4.0.4 Implementation of Privacy Practices

The study revealed varying degrees of implementation of privacy practices among supermarket owners, including retention of footage, data minimization and purpose

Concerns about the retention period of surveillance footage emerged as a significant theme. Many owners expressed a desire to comply with regulations but were unsure of best practices. As one respondent said, *"We delete footage after a couple of weeks, but but I'm not sure if that's enough to comply with the law."*(Respondent 12). Additionally, while some respondents emphasized the importance of data minimization asserting that surveillance systems should capture only what is necessary for security purposes others admitted to using customer footage to analyze trends and preferences. This has been revealed as among of the respondent said *"We strive to position cameras to cover essential areas for security purposes"* (Respondent 55) while other said *"We also use customer footage to analyze customer trends and preferences"* (Respondent 47). This practice contradicts the data protection principle, as it expands the scope of data collection beyond what is deemed necessary for security. These findings collectively indicate a significant gap in understanding among respondents about data protection principles as outlined in section 1 of PDPA,2022. Engagement with regulatory bodies is essential as a disconnect from the legislative bodies can create significant communication, education and guidance barriers regarding privacy law.

5.0 Conclusion

The findings of this study revealed a lack of awareness and implementation of privacy laws among supermarket owners who utilize video surveillance systems. While there is recognition of the benefits of surveillance systems, significant gaps in understanding and compliance with privacy law persist. This highlights the urgent need for supermarket owners in Tanzania to be aware of and comply with the PDPA, 2022, to safeguard customer privacy while leveraging surveillance technologies for security and operational efficiency. Addressing these gaps through education, clearer guidelines, and improved communication with regulatory bodies is essential to foster a balance between security and privacy in the supermarket environment.

5.1 Recommendations

Based on the findings of the study on the awareness of privacy laws among supermarket owners using video surveillance systems in Dar es Salaam, the following recommendations are proposed for regulatory authorities specifically Personal Data Protection Commission (PDPC).

- To Enhance Training and Educational Programs. PDPC should implement training programs and workshops for supermarket owners who are using surveillance systems on privacy laws and data protection practices. These training and education programs should cover topics such as obtaining consent, data minimization, and retention policies, ensuring that stakeholders are informed and equipped to handle personal data responsibly.
- To implement a support system for compliance queries. PDPC should create a dedicated support system or helpline for businesses seeking guidance on privacy regulations. This service should be staffed by knowledgeable personnel who can provide timely and accurate information to assist owners in their compliance efforts.
- To Increase Awareness Campaigns. PDPC should increase their effort in launching public awareness campaigns to inform citizens about their privacy rights and the implications of surveillance. These campaigns should emphasize the importance of transparency and consent, encouraging customers to engage with businesses about their data privacy practices.
- To Facilitate Stakeholder Engagement. PDPC should establish regular communication channels with business community. This could include forums or roundtable discussions where business owners can voice concerns, share experiences, and seek advice on navigating privacy laws.
- To Develop Comprehensive Guidelines. PDPC should create clear, accessible guidelines that outline the specific obligations of businesses regarding video surveillance and personal data processing. These guidelines should be tailored to various sectors, including retail, to help owners understand their responsibilities and compliance requirements.

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