I Desire to View Your Posts Again and Again: Instagram Mega-Influencers and their Implications for Personal Data Protection in Malaysia

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Abstract
This study aims to examine the effects of Instagram mega influencers from interactivity and engagement point of views on the personal data protection in Malaysia. As a conceptual paper, this research explores the factors of beauty products by evaluating Instagram mega influencers' characteristics as a predictor which influence on personal data protection. This study covers quantitative research. All the respondents are recruited on a voluntary basis. This study's target **respondents** are Malaysian Instagram mega influencers with over one million followers who are involved with beauty products. In this research, the lowest respondents from the individual Internet users are not predicted to be less than 200. Multiple regression analysis will be employed to elucidate the relationship between the variables to obtain an equation that represents the best prediction of dependent variable from the independent variable. Considering the nature of the study, the complexity of the research model and the relatively small sample size, Partial Least Squares (PLS) are selected as the statistical tool to analyse the quantitative data. The findings of this study are anticipated to

provide practitioners in the e-marketing sector with valuable insights on the significance of Instagram mega influencers by examining their impact on the protection of personal data in beauty products.

Keywords: Mega Influencers, Interactivity, Engagement, Personal Data Protection, Beauty Products

Introduction

The rapid advancement of digital technologies has fundamentally transformed patterns of social interaction, commercial activity, and communication. As everyday practices increasingly migrate to online environments, concerns surrounding personal data protection have become central to contemporary debates on digital governance, consumer trust, and individual privacy. These concerns are particularly salient in Malaysia, where internet penetration and social media usage are among the highest in the region. According to the Department of Statistics Malaysia (DOSM, 2020), 96.8% of the Malaysian population were internet users in 2021, with 99.0% engaging in social networking activities and 89.4% using online platforms to search for information on goods and services. Such figures illustrate not only the deep integration of digital technologies into daily life but also the extensive and routine generation, disclosure, and circulation of personal data within online environments.

The widespread adoption of internet technologies has further accelerated the expansion of eCommerce in Malaysia, significantly reshaping consumer purchasing behaviour. In 2021, Malaysia's eCommerce revenue exceeded MYR 1 trillion, and by the first half of 2022 had reached MYR 566.4 billion, indicating sustained growth beyond the previous year's record (Statista, 2022). While this growth reflects technological efficiency and economic opportunity, it simultaneously intensifies concerns regarding personal data protection. Online commercial transactions typically require consumers to disclose sensitive personal information, including identification details, contact information, and financial data. Such information is frequently stored, shared, and reused across platforms, increasing consumers' vulnerability to data breaches, unauthorised access, and secondary data use without informed consent. Consequently, personal data protection has emerged as a critical issue at the intersection of digital commerce, consumer behaviour, and regulatory governance.

At the international level, personal data protection has increasingly been framed as a fundamental issue linked to human rights and responsible digital regulation. International organisations, including the United Nations (UN), the Council of Europe, and the Organisation for Economic Co-operation and Development (OECD), have consistently emphasised the need for regulatory frameworks to address risks arising from electronic data processing and cross-border data flows (Council of Europe, 1981; OECD, 2013; United Nations–Economic and Social Council, 1990). Reflecting this global concern, more than 100 countries have enacted personal data protection legislation (Sidi Mohamed et al., 2019). However, despite the proliferation of regulatory instruments, scholars increasingly argue that legal frameworks alone are insufficient to address privacy risks in highly interactive and socially driven digital environments, where data disclosure is often shaped by social influence, platform norms, and perceived trust rather than legal awareness.

In Malaysia, the Personal Data Protection Act 2010 (PDPA), which came into force in 2013, constitutes the primary legal framework governing personal data protection in commercial

transactions. As one of the earliest comprehensive data protection laws in the Association of Southeast Asian Nations (ASEAN) region, the PDPA aims to safeguard individuals against identity theft, financial fraud, and unauthorised disclosure of personal information. Comprising 146 sections across 11 parts, the Act remains the cornerstone of Malaysia's personal data protection regime (Nurhasanah et al., 2020; Sidi Mohamed et al., 2019). Nevertheless, persistent reports of data breaches and low levels of consumer awareness suggest a gap between formal legal protection and actual data protection practices, particularly within social media environments where personal information disclosure is often normalised and encouraged.

Within this digital context, social media influencers have emerged as influential actors shaping online norms, consumer attitudes, and behavioural expectations. Influencers are content creators who exert influence over their followers' perceptions and decision-making processes due to their perceived credibility, popularity, and authenticity (Jun & Yi, 2020). Influencers are commonly categorised by follower count, ranging from micro-influencers to mega-influencers, with the latter typically exceeding one million followers (Agrawal, 2019; Park et al., 2021). Mega-influencers, in particular, occupy a powerful position within digital marketplaces, especially in sectors such as beauty and lifestyle marketing, where personal narratives, self-disclosure, and relational engagement are central to persuasive communication.

This study is grounded in Social Learning Theory, which posits that individuals acquire attitudes and behaviours through observing and imitating salient role models (Bandura, 1977). Within social media environments, influencers function as highly visible models whose behaviours, communication styles, and engagement practices are repeatedly observed by followers. Through this process, followers may internalise not only consumption-related behaviours but also broader norms concerning personal information disclosure, privacy management, and perceived risks associated with online participation. Accordingly, influencers' approaches to data sharing, platform engagement, and transparency may play a formative role in shaping followers' awareness and attitudes toward personal data protection.

Signalling Theory provides a complementary lens for understanding influencers' influence within digital marketplaces. Signalling Theory suggests that individuals and organisations convey information through observable cues in order to reduce uncertainty and build trust (Spence, 1973). In social media contexts, influencers' disclosure practices, responsiveness, and communication strategies may serve as signals of credibility, responsibility, and ethical conduct. For mega-influencers with extensive reach and visibility, such signals may shape followers' perceptions of acceptable data-sharing practices and influence their evaluations of privacy risks during online transactions.

Despite a growing body of research examining the effects of influencers on brand awareness, consumer trust, and purchase intention (Ji et al., 2022), limited empirical attention has been given to their role in shaping personal data protection awareness and privacy-related behaviours. This omission is notable given that mega-influencers frequently engage in extensive self-disclosure and exert substantial normative influence over followers (Lee et al., 2020). As a result, influencers may either normalise extensive personal data disclosure or,

alternatively, encourage more cautious, informed, and responsible approaches to personal data sharing.

Against this backdrop, the central research problem addressed in this study concerns the lack of empirical understanding of how Instagram mega-influencers influence followers' personal data protection awareness and practices within commercial social media contexts. This issue is particularly significant within contemporary social science debates on digital responsibility, platform governance, and consumer protection, which increasingly recognise the role of non-state actors in shaping digital norms. Accordingly, this study aims to investigate the role of Instagram mega-influencers in promoting positive personal data protection practices through their interactivity and engagement, with specific reference to beauty product promotion. By integrating Social Learning Theory and Signalling Theory, this research seeks to extend existing influencer literature beyond traditional marketing outcomes and contribute to broader discussions on privacy governance, digital ethics, and consumer empowerment in social media environments.

Literature Review
Beauty Products in Malaysia
The global beauty and personal care industry continues to demonstrate substantial economic growth. In 2023, the industry generated approximately USD 571.10 billion in revenue, with an anticipated annual growth rate of 3.80%. Within this industry, the personal care segment represented the largest market share, valued at USD 253.30 billion (Statista, 2023). Beauty products, commonly referred to as cosmetics, include preparations applied externally to enhance or alter the appearance of the skin, hair, nails, lips, and eyes (Archana et al., 2018). The use of beauty products is no longer limited to women; contemporary trends indicate increasing usage among men, particularly millennial males who demonstrate heightened concern for personal appearance and grooming (Ishak et al., 2020).

In Malaysia, the cosmetics and toiletries market has experienced steady growth. According to GlobalData (2021), the market expanded from USD 1.6 billion in 2018 to an estimated USD 2.1 billion in 2023, representing a compound annual growth rate (CAGR) of 4.2%. Among product categories, colour cosmetics exhibited the fastest growth, with a projected CAGR of 4.7%. This trend indicates a growing demand for beauty products among Malaysian consumers. The rise of domestic cosmetic brands has occurred concurrently with the expansion of social media platforms such as Instagram, Facebook, and Twitter, which have become critical channels for marketing and brand communication (Badarudin, 2018).

Advancements in information technology have intensified competition within the beauty industry, as products can now be introduced and promoted to consumers more rapidly and extensively (Suraiya Ishak et al., 2020). Marketing communications disseminated through digital media significantly influence consumer attitudes and purchasing decisions (Arshad & Aslam, 2015; Riane & Natasha, 2021). In Malaysia, beauty product marketing increasingly relies on social media influencers, particularly Instagram mega-influencers, to shape consumer perceptions and purchasing behaviour. Through lifestyle-oriented content and sustained interaction with followers, mega-influencers integrate beauty products into their daily narratives, thereby enhancing product visibility and credibility. Given this growing reliance on influencers, it is important to examine their broader impact, including issues

related to personal data protection arising from online engagement and transactional activities.

Personal Data Protection

Personal data refers to any information relating to an identified or identifiable individual (Da Veiga et al., 2019). Article 4 of the European Union's General Data Protection Regulation (GDPR) defines personal data as "any information relating to an identified or identifiable natural person." Such information may include names, addresses, identification numbers, dates of birth, telephone numbers, and vehicle registration details (Dona Budi et al., 2022; Vemou & Karyda, 2019). Additionally, digital identifiers such as cookies, IP addresses, and web-tracking technologies are increasingly recognised as personal data due to their capacity to identify individuals (Giakoumopoulos et al., 2018).

In Malaysia, personal data protection is governed by the Personal Data Protection Act 2010 (PDPA). Section 4 of the PDPA defines personal data as any information relating to commercial transactions. The Act applies primarily to the processing of personal data in commercial contexts, making the concepts of "processing" and "commercial transactions" central to its scope. Processing encompasses activities such as the collection, recording, storage, use, and disclosure of personal data (Sidi Mohamed et al., 2019). The definition of processing has been interpreted broadly to include all actions undertaken by data users in relation to personal data (Abu Bakar Munir, 2012). Furthermore, commercial transactions include any transaction of a commercial nature, whether contractual or otherwise, relating to the supply or exchange of goods or services.

The Personal Data Protection (Class of Users) Order 2013 further specifies various categories of data users subject to the PDPA, including entities in the banking and financial sectors, private healthcare, education, insurance, and transportation. Based on these definitions and classifications, personal data shared on online platforms to complete transactions—such as purchasing goods or subscribing to services—falls within the scope of the Act. Consequently, personal data protection is a critical issue in the context of online commerce and social media–driven transactions.

Protecting personal data is essential, as it reflects an individual's right to control the disclosure and use of personal information (Watson & Lupton, 2020). Data protection efforts are therefore closely linked to the broader concept of privacy rights (Murray, 2013). In the absence of effective legal and organisational safeguards, incidents involving data misuse and breaches are likely to persist. Globally, numerous cases have been reported involving large-scale data breaches, including the unauthorised disclosure and sale of debit and credit card information by hackers (Cranor & Resnick, 2000; Sheshadri, 2019).

In Malaysia, concerns regarding data security have also intensified. In 2023, the Minister of Communications and Digital Technology called for an investigation into a significant data breach allegedly affecting nearly 13 million individuals. Reports indicated potential data leaks involving major organisations, including financial institutions and public agencies (BankInfoSecurity, 2023). These incidents underscore the continuing vulnerability of personal data in digital environments and highlight the importance of examining data protection practices beyond formal regulatory compliance.

Mega-Influencers

Influencers are individuals who possess the ability to influence the purchasing decisions of others due to their authority, credibility, or relationship with their audience (Brown & Hayes, 2008). In recent years, influencers have evolved into a professional group playing an increasingly significant role in organisational marketing strategies (Sokolova & Kefi, 2020). Prior research has examined various influencer characteristics, including trustworthiness, attractiveness, homophily, and emotional connection, which contribute to their persuasive effectiveness (Ladhari et al., 2020).

Much of the influencer literature is grounded in the source credibility model, which emphasises expertise and trustworthiness as key determinants of persuasive influence (Hovland et al., 1953). Additional attributes, such as physical attractiveness, have been incorporated due to influencers' similarities to celebrity endorsers (McGuire, 1985). Mega-influencers—defined as influencers with more than one million followers—are particularly influential due to their extensive reach and visibility. Existing studies suggest that influencer impact may vary depending on follower size, although the usefulness of follower count as the sole selection criterion has been questioned (De Veirman et al., 2017; Schimmelpfennig & Hunt, 2020).

This study focuses on two key characteristics of mega-influencers: interactivity and engagement, as these dimensions are central to influencer–follower relationships and may have implications for personal data protection.

Interactivity

Interactivity refers to the degree of reciprocal communication and responsiveness between communicators during message exchange (Tan et al., 2018). In the context of social media influencers, interactivity involves two-way interactions between influencers and followers through comments, feedback, live sessions, and direct responses (Jun & Yi, 2020). Although practitioners have increasingly emphasised interactivity as a critical element of influencer marketing, limited academic research has examined its broader implications beyond marketing outcomes (Garnès, 2019).

Social media interactivity has been conceptualised in multiple dimensions, including user-to-user, user-to-system, and user-to-information interactions (Lin & Chang, 2018). For mega-influencers with extensive follower bases, high levels of interactivity may amplify their influence and shape followers' perceptions and behaviours. However, existing research has largely focused on brand-related outcomes such as loyalty and promotion, with minimal attention given to the relationship between influencer interactivity and personal data protection. This study therefore examines the extent to which mega-influencers' interactivity may positively influence personal data protection.
H1: Mega-influencers' interactivity has a direct positive influence on personal data protection.

Engagement

Engagement in social media research refers to a range of user behaviours that support or interact with content, including liking, commenting, sharing, reading posts, and following accounts (John et al., 2017; Lee et al., 2018; Manchanda et al., 2015). Prior studies have demonstrated that consumer engagement contributes to value co-creation, customer

satisfaction, relationship quality, and firm performance (Kumar & Pansari, 2016). Hollebeek (2011) conceptualised engagement as a psychological state comprising cognitive, emotional, and behavioural dimensions that emerge during interactions with brands or entities.

In online environments, engagement extends beyond marketing outcomes. Social media platforms facilitate information sharing and acquisition based on users' motivations, enabling continuous interaction and participation (Tuten, 2020). Mega-influencers actively create content to sustain engagement and expand their follower base, leveraging platform functionalities such as live streaming, stories, and interactive features (Wolf et al., 2018). These engagement practices enable co-creation and real-time interaction, which are distinctive characteristics of contemporary social media environments (Hollebeek et al., 2019).

Despite extensive research on engagement in marketing contexts, limited attention has been paid to how influencer engagement may affect awareness and practices related to personal data protection. Given the prominence of mega-influencers and their ability to shape online norms, this study investigates whether influencer engagement contributes positively to personal data protection.
H2: Mega-influencers' engagement has a direct positive influence on personal data protection.

Methodology
This study adopts a quantitative research design to examine the influence of Instagram mega-influencers' interactivity and engagement on personal data protection. The population comprises Instagram mega-influencers in Malaysia who have experience promoting beauty products, either as founders, brand ambassadors, or through product reviews and endorsements. Mega-influencers are selected due to their extensive reach and high levels of interaction with online users.

The sampling frame focuses on Malaysian-based Instagram mega-influencers who actively engage with followers through posts, comments, and live interactions. These influencers are frequently exposed to online interactions that may involve commercial transactions, subscriptions, and the sharing of personal information. Additionally, their public visibility and tendency to share aspects of their personal lives further increase their exposure to personal data risks.

Sampling considerations include follower count, engagement metrics (such as likes and comments), and the frequency of influencer–follower interaction. Data are collected from respondents within Malaysia to ensure contextual relevance. The quantitative approach enables systematic analysis of the relationships between interactivity, engagement, and personal data protection, thereby providing empirical evidence to support the proposed hypotheses.

Conclusion

This study is expected to give contributions in form of better understand and explanation on the positive effects of Instagram mega influencers on personal data protection. It attempts to remedy any limitation on the area from the earlier study. The issue on personal data protection had always been discussed from the legal points of view that evaluate the framework of the available laws. There are qualitative studies produced earlier that discuss on the improvement needed on the legal framework, the enhancement on the enforcement part, and the comparison with other laws from different jurisdiction. This research is intended to look from a socio-legal perspective that may contribute findings on the external factors which happened to be the most influenced users of the of the biggest internet platform, Instagram. This research will test the influence of the mega influencers through their interactivity and engagement with the online users on the personal data protection. Aspects from privacy, data sharing, foul comments, abusive live feeds session and any other forms online encroachments during the interactivity and engagement will be among the matters to be tested for this research. In the end this research will be able to draw a new perspective in evaluating an existing legal protection afforded to the online users of the beauty products.

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