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The Effect of Subscription Strategies, Personalized Offers, and Email Marketing on Perceived Usefulness through User Engagement and Its Impact on Conversion and Customer Retention in Local Indonesian Streaming Services

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ABSTRACT

This study examines the influence of subscription strategies, personalized offers, and email marketing on perceived usefulness through user engagement, and their impact on conversion and customer retention in Indonesian local streaming services. Using a quantitative approach, data were collected from 300 respondents through a structured questionnaire using a 5-point Likert scale and analyzed with Structural Equation Modeling–Partial Least Squares (SEM-PLS 3). The results indicate that all three marketing strategies significantly enhance user engagement, with personalized offers having the strongest effect. User engagement strongly predicts perceived usefulness, which in turn significantly drives both conversion and customer retention. These findings confirm the mediating role of user engagement and perceived usefulness in the relationship between marketing strategies and business performance outcomes. The study contributes to the theoretical understanding of user behavior in digital entertainment services and provides practical recommendations for optimizing customer acquisition and loyalty in competitive streaming markets.

Keywords: *Subscription Strategies, Personalized Offers, Email Marketing, User Engagement, Customer Retention.*

1. INTRODUCTION

The rapid growth of Indonesia's digital entertainment industry has transformed consumer behavior, especially in local streaming services. Boosted by rising internet penetration, affordable mobile devices, and changing media habits, the market has become highly competitive, requiring effective marketing strategies to attract subscribers, boost engagement, and ensure loyalty. Vidio.com strengthens retention through exclusive content, personalized recommendations, and strategic partnerships, along with pricing strategies like special monthly subscriptions for high-demand content to reduce churn [1]. Video-on-demand (VOD) services have shifted viewing habits, with binge-watching among younger users linked to sleep disruptions and mental health concerns, prompting calls for balanced viewing promotions; notably, female users report higher sleep disturbances, suggesting targeted interventions [2]. Despite Netflix's dominance, demand for local productions presents opportunities for platforms to invest in Indonesian content [3]. Similarly, RCTI+ applies integrated marketing communication to acquire and retain users, aligning promotional efforts to effectively reach digital audiences [4].

Subscription strategies, personalized offers, and email marketing are widely adopted approaches to building and sustaining competitive advantage in streaming services, as they collectively enhance user acquisition, satisfaction, and loyalty. Subscription models, which define the value proposition through pricing, content access, and flexibility, are essential for generating ongoing revenue and adapting to changing user preferences, with key determinants including convenience, content diversity, and pricing [5], [6]. Effective pricing strategies, such as all-inclusive

pricing, improve perceived value and fairness, increasing willingness to subscribe [7]. Personalized offers leverage user data to provide tailored recommendations and promotions, boosting perceived usefulness, enjoyment, and overall service appeal [6], [8]. Meanwhile, email marketing remains a powerful tool for reinforcing engagement, nurturing relationships, and encouraging repeated platform usage through the delivery of personalized content and promotions [9]. Together, these strategies play a pivotal role in ensuring sustained engagement, competitive positioning, and long-term revenue growth in the streaming industry.

The effectiveness of marketing efforts in fostering user engagement is strongly influenced by perceived usefulness, a core element of the Technology Acceptance Model (TAM), as engaged users who actively interact and emotionally connect with a service are more likely to view it as beneficial, driving conversion and retention. Perceived usefulness, which reflects the extent to which users believe a service enhances their experience, is a major determinant of technology acceptance and directly impacts engagement and satisfaction, as seen in short-form video shopping platforms where it boosts engagement and purchase intention [10], and in social e-commerce where it works alongside perceived trust to mediate user conversion and interaction [11]. Its influence on service continuance is evident in e-services, where higher perceived usefulness increases retention and loyalty [12], and in digital game platforms like Steam, where it supports higher engagement through effective promotions [13]. Furthermore, demographic factors such as age and gender can moderate this relationship, with studies showing that among university students, perceived usefulness significantly shapes preferences for social networking sites, amplified by demographic characteristics [14].

While prior studies have explored marketing strategies and user engagement in various digital contexts, limited research has integrated these factors into a comprehensive model within the Indonesian local streaming industry. Considering Indonesia's unique cultural, economic, and competitive dynamics, it is essential to understand how subscription strategies, personalized offers, and email marketing operate through user engagement to enhance perceived usefulness, thereby driving conversion and customer retention. This study addresses this gap by examining these relationships using Structural Equation Modeling–Partial Least Squares (SEM-PLS) version 3, with the findings expected to contribute theoretically to digital marketing and user behavior literature, and practically by offering streaming service providers in Indonesia data-driven, engagement-focused strategies for sustainable growth.

2. LITERATURE REVIEW

2.1 Subscription Strategies

Subscription strategies in the streaming industry are crucial for attracting and retaining subscribers by balancing affordability, perceived value, and service flexibility, often through tiered pricing, free trials, and exclusive content that influence user decisions and enhance satisfaction by giving them a sense of control over service usage. Users are motivated to subscribe due to seamless accessibility and immersive experiences that enrich viewing enjoyment, as well as the appeal of engaging, binge-worthy content that fosters emotional bonding [12]. Pricing approaches also play a vital role, with all-inclusive pricing proving more effective than partitioned pricing by increasing perceived value and fairness, while partitioned pricing, despite adding perceived playfulness, can introduce complexity that negatively affects perceptions [7].

Well-structured subscription models aim to build customer loyalty and generate recurring revenue by adapting to evolving consumer tastes [5]. while maintaining high service quality remains essential for sustaining satisfaction and long-term loyalty [15].

H1: Subscription strategies have a positive and significant effect on user engagement.

2.2 Personalized Offers

Personalized offers on streaming platforms enhance user experience by tailoring content and promotions to individual preferences, thereby increasing engagement, satisfaction, and emotional attachment. Leveraging data analytics and consumption history, platforms deliver relevant recommendations that improve user retention and perceived usefulness, with machine learning and artificial intelligence enabling real-time adaptation to user behavior [16]. Big Data technologies such as Hadoop and AWS further optimize content delivery and personalize recommendations, boosting service reliability and viewer engagement [17]. This personalization reduces cognitive load and decision-making time, aligning content with individual preferences to enhance satisfaction and engagement [18], while algorithmic personalization in video-on-demand services fosters deeper user interaction but raises concerns about echo chambers and privacy [16]. Balancing personalization with user consent is essential, requiring transparency in data usage to maintain trust [19], alongside ethical AI design and algorithmic literacy to ensure responsible media practices and mitigate privacy risks [16].

H2: Personalized offers have a positive and significant effect on user engagement.

2.3 Email Marketing

Email marketing is a cost-effective and measurable tool for streaming services to strengthen customer relationships by delivering timely updates, reminders, and exclusive offers, fostering trust, increasing platform visits, and encouraging active participation. The integration of artificial intelligence (AI) enhances personalization and engagement, with AI-driven campaigns offering hyper-personalized experiences and dynamic audience segmentation through machine learning to keep messages relevant and timely [20]. As a cost-effective strategy, email marketing benefits from automation tools that optimize campaigns and reduce resource needs [21], while its measurability allows for precise targeting and customization to improve communication relevance [22]. Furthermore, email newsletters and campaigns provide a direct and impactful communication channel that can outperform other digital strategies in nurturing relationships [23], with consistent and relevant messages fostering trust, encouraging participation, and maintaining customer loyalty [24].

H3: Email marketing has a positive and significant effect on user engagement.

2.4 User Engagement

User engagement in streaming services is a multifaceted construct encompassing cognitive, emotional, and behavioral dimensions, all of which are essential for enhancing satisfaction and advocacy. Engagement goes beyond mere usage frequency, reflecting the depth of interaction and emotional connection users have with the service, where higher involvement often leads to greater perceived usefulness and satisfaction. Cognitive engagement involves users' focused attention and mental investment in the

content, enabling immersion during the initial engagement phase [25]. Emotional engagement reflects enthusiasm and passion, fostering a deeper connection that sustains long-term loyalty [25]. Behavioral engagement captures the frequency and duration of interactions, as well as proactive actions such as recommending the service to others [25]. Measuring engagement can be done through self-report methods like surveys to capture subjective perceptions, observational techniques such as facial expression and speech analysis to gauge emotional responses, and web analytics tracking metrics like site visits and click depth to quantify behavioral patterns [26].

H4: User engagement has a positive and significant effect on perceived usefulness.

2.5 Perceived Usefulness

Perceived usefulness, as defined in the Technology Acceptance Model (TAM), is a key determinant of user acceptance and engagement with technology, including streaming services, encompassing factors such as content accessibility, entertainment value, and service convenience. Higher perceived usefulness has been shown to drive increased conversion rates and stronger customer loyalty by significantly shaping user preferences and behaviors. For example, in social network sites, it plays a major role in technology acceptance among university students, with currency and relevance being crucial [14], while in mobile health services, it positively influences attitudes and adoption intentions [27]. In music streaming, perceived usefulness, along with benefits and ease of use, directly impacts behavioral intentions to use the service, indicating that users are more inclined to engage with platforms they find beneficial and convenient [28]. Furthermore, it is closely related to perceived convenience and effectiveness, as shown in Learning Management Systems where perceived convenience emerged as the strongest predictor of acceptance, strongly correlating with perceived usefulness [29].

H5: Perceived usefulness has a positive and significant effect on conversion.
H6: Perceived usefulness has a positive and significant effect on customer retention.

3. METHODS

This study adopts a quantitative research design with a causal-explanatory approach to examine the influence of subscription strategies, personalized offers, and email marketing on perceived usefulness through user engagement, as well as their impact on conversion and customer retention in Indonesian local streaming services. Structural Equation Modeling–Partial Least Squares (SEM-PLS) version 3 was employed for data analysis due to its suitability for predictive modeling and complex causal relationships involving mediating variables. The research population consisted of users of local streaming services such as Vidio, RCTI+, and Vision+, selected through purposive sampling based on the criteria of having used a local streaming platform for at least three months and having experience with subscription offers, personalized recommendations, and email communications. A total of 300 respondents participated in the study, meeting the minimum sample size requirement for SEM-PLS analysis (Hair et al., 2021) and ensuring adequate statistical power.

Primary data were collected through an online questionnaire distributed via email, social media, and user communities of local streaming platforms. The questionnaire used closed-ended questions measured on a 5-point Likert scale, ranging from 1 (“strongly disagree”) to 5 (“strongly agree”), and was designed to capture respondents’ perceptions and experiences related to the constructs in the research model. The variables were measured using indicators adapted from validated scales in previous studies, with modifications to suit the streaming service context: Subscription Strategies (Nguyen et al., 2020), Personalized Offers (Smith, 2019), Email Marketing

(Chaffey, 2019), User Engagement (Hollebeek et al., 2014), Perceived Usefulness (Davis, 1989), Conversion (Chen & Lin, 2018), and Customer Retention (Reichheld, 2003).

Data analysis was conducted in four stages. First, descriptive statistics were used to summarize demographic characteristics and general responses. Second, the outer model evaluation assessed convergent validity (Average Variance Extracted, AVE > 0.50), discriminant validity (Fornell–Larcker criterion), and reliability (Composite Reliability > 0.70, Cronbach's Alpha > 0.70). Third, the inner model evaluation examined path coefficients, the coefficient of determination (R^2), effect sizes (f^2), and predictive relevance (Q^2). Finally, hypothesis testing was performed by assessing the significance of path coefficients through bootstrapping with 5,000 resamples, with hypotheses considered supported if the t-statistic exceeded 1.96 and the p-value was less than 0.05.

4. RESULTS AND DISCUSSION

4.1 Respondent Profile

A total of 300 valid responses were collected and analyzed in this study. The demographic characteristics of the respondents are summarized in Table 1.

Table 1. Respondent Demographic Profile

Category	Description	Frequency	Percentage (%)
Gender	Male	167	55.7
	Female	133	44.3
Age	< 20 years	51	17.0
	21–30 years	163	54.3
	31–40 years	86	28.7
Education	Senior High School	78	26.0
	Diploma	25	8.3
	Bachelor's Degree	184	61.3
	Postgraduate	13	4.4
Income	< IDR 3 million	95	31.7
	IDR 3–5 million	122	40.7
	> IDR 5 million	83	27.6
Platform	Vidio	126	42.0
	RCTI+	100	33.3
	Vision+	74	24.7

Source: Results Processing Data by Author's (2025)

The respondent profile shows that Indonesian local streaming services attract a diverse audience across gender, age, education, and income levels. Of the 300 respondents, 167 (55.7%) were male and 133 (44.3%) female, indicating balanced gender participation. In terms of age, the majority were 21–30 years old (163 respondents or 54.3%), followed by 31–40 years (86 respondents or 28.7%) and under 20 years (51 respondents or 17.0%), suggesting strong popularity among young adults with higher digital literacy and entertainment consumption. Educationally, most held a Bachelor's degree (184 respondents or 61.3%), with others being Senior High School graduates (78 respondents or 26.0%), Diploma holders (25 respondents or 8.3%), and Postgraduates (13 respondents or 4.4%), reflecting predominance among medium to highly educated users. Income distribution was varied, with 122 respondents (40.7%) earning IDR 3–5 million monthly, 95 respondents (31.7%) earning below IDR 3 million, and 83 respondents (27.6%) earning above IDR 5 million, indicating reach across economic segments. In platform preference, Vidio led with 126 respondents (42.0%), followed by RCTI+ (100 respondents or 33.3%) and Vision+ (74 respondents or 24.7%), highlighting competitive market dynamics without a single dominant provider.

4.2 Outer Model Evaluation

The outer model evaluation was conducted to assess the validity and reliability of the measurement model, ensuring that the observed indicators accurately represent their respective latent constructs. The evaluation included convergent validity, discriminant validity, and reliability testing.

1. Convergent Validity

Convergent validity was examined using indicator loadings and Average Variance Extracted (AVE). The results in Table 2 indicate that all indicator loadings exceeded the minimum acceptable threshold of 0.70 (Hair et al., 2021), demonstrating that each indicator strongly correlates with its respective construct. Additionally, all AVE values were above 0.50, confirming that more than 50% of the variance in the indicators was explained by their latent variables.

Table 2. Convergent Validity Results

Construct	Indicator	Loading	AVE	Result
Subscription Strategies (SS)	SS1	0.813	0.654	Valid
	SS2	0.828		
	SS3	0.791		
	SS4	0.804		
Personalized Offers (PO)	PO1	0.825	0.678	Valid
	PO2	0.846		
	PO3	0.803		
	PO4	0.820		
Email Marketing (EM)	EM1	0.829	0.665	Valid
	EM2	0.812		
	EM3	0.795		
	EM4	0.830		
User Engagement (UE)	UE1	0.862	0.698	Valid
	UE2	0.848		
	UE3	0.805		
	UE4	0.829		
Perceived Usefulness (PU)	PU1	0.846	0.689	Valid
	PU2	0.842		
	PU3	0.821		
	PU4	0.823		
Conversion (CV)	CV1	0.817	0.676	Valid
	CV2	0.835		
	CV3	0.804		
Customer Retention (CR)	CR1	0.833	0.681	Valid
	CR2	0.827		
	CR3	0.806		
	CR4	0.832		

Source: Results Processing Data by Author's (2025)

2. Reliability Testing

Reliability testing using Composite Reliability (CR) and Cronbach's Alpha showed that all constructs demonstrated strong internal consistency, with all CR values exceeding the recommended threshold of 0.70 and all Cronbach's Alpha values also above 0.70. Specifically, Subscription Strategies (SS) achieved a Cronbach's Alpha of 0.853 and CR of 0.897, Personalized Offers (PO) 0.868 and 0.907, Email Marketing (EM) 0.854 and 0.898, User Engagement (UE) 0.882 and 0.920, Perceived Usefulness (PU) 0.871 and 0.912, Conversion (CV) 0.834 and 0.892, and Customer Retention (CR) 0.865 and 0.910, confirming that all measurement items are reliable.

3. Discriminant Validity

Discriminant validity, which ensures that each construct in the model is distinct and that its indicators measure only the intended latent variable, was evaluated in this study using the Fornell–Larcker criterion and the Heterotrait–Monotrait (HTMT) ratio of correlations. Based on the Fornell–Larcker criterion, the square root of each construct's Average Variance Extracted (AVE) was greater than its correlations with other constructs, as shown in Table 3, where all diagonal values (square roots of AVE) exceeded the off-diagonal correlations, thereby confirming discriminant validity.

Table 3. Fornell–Larcker Criterion

Construct	SS	PO	EM	UE	PU	CV	CR
SS	0.808						
PO	0.524	0.823					
EM	0.496	0.538	0.816				
UE	0.574	0.586	0.569	0.835			
PU	0.521	0.548	0.537	0.740	0.830		
CV	0.497	0.519	0.505	0.631	0.694	0.822	
CR	0.483	0.526	0.492	0.645	0.705	0.677	0.825

Source: Results Processing Data by Author's (2025)

The results show that each construct shares more variance with its own indicators than with other constructs, fulfilling the Fornell–Larcker criterion as indicated by the diagonal values (in bold) representing the square roots of AVE. Furthermore, the Heterotrait–Monotrait Ratio (HTMT), considered a more stringent measure of discriminant validity, also confirmed the distinctiveness of the constructs. Following Henseler et al. (2015), HTMT values below 0.90 indicate acceptable discriminant validity, and as shown in Table 4, all values met this criterion, demonstrating that the constructs are empirically distinct.

Table 4. HTMT Ratio

Construct	SS	PO	EM	UE	PU	CV	CR
SS	–	0.647	0.612	0.683	0.648	0.621	0.603
PO		–	0.658	0.699	0.673	0.645	0.664
EM			–	0.681	0.662	0.639	0.618
UE				–	0.782	0.733	0.756
PU					–	0.801	0.826
CV						–	0.812
CR							–

Source: Results Processing Data by Author's (2025)

All HTMT values being below 0.90 confirms that multicollinearity between constructs is low and that each latent variable measures a unique concept.

4.3 Inner Model Evaluation

The inner model evaluation assesses the structural relationships between constructs to determine the model's predictive power and explanatory capability. In this study, the evaluation involved analyzing the coefficient of determination (R^2), predictive relevance (Q^2), and effect size (f^2), followed by interpreting the path diagram results. The R^2 value represents the proportion of variance in the endogenous variables explained by their predictors, where, according to Chin (1998), values of 0.67, 0.33, and 0.19 are categorized as substantial, moderate, and weak, respectively.

The results show that 61.2% of the variance in User Engagement is explained by Subscription Strategies, Personalized Offers, and Email Marketing ($R^2 = 0.612$, moderate to substantial), 54.7% of the variance in Perceived Usefulness is explained by User Engagement ($R^2 = 0.547$, moderate), 48.2% of the variance in Conversion is explained by Perceived Usefulness ($R^2 = 0.482$, moderate), and 49.6% of the variance in Customer Retention is explained by Perceived Usefulness ($R^2 = 0.496$, moderate).

These findings indicate that the model demonstrates moderate to substantial explanatory power in predicting key outcomes within the Indonesian local streaming service context.

The Stone–Geisser Q^2 test, conducted using a blindfolding procedure, was applied to evaluate the predictive relevance of the model, where a Q^2 value greater than 0 indicates predictive relevance for a specific endogenous variable (Hair et al., 2021). The results show that User Engagement (Q^2 = 0.421) has large predictive relevance, Perceived Usefulness (Q^2 = 0.366) has medium to large predictive relevance, while Conversion (Q^2 = 0.295) and Customer Retention (Q^2 = 0.307) both have medium predictive relevance. Since all Q^2 values are positive, it is confirmed that the structural model demonstrates good predictive relevance for all endogenous constructs.

Hypothesis testing in this study was conducted to assess the significance of relationships between variables in the structural model. The evaluation used bootstrapping with 5,000 subsamples in SmartPLS 3.0, producing path coefficients (β), t-statistics, and p-values. Hypotheses were considered supported if the t-statistic > 1.96 at the 5% significance level ($p < 0.05$).

Table 5. Path Coefficient Results

	Relationship	Path Coefficient (β)	t-Statistic	p-Value	Conclusion
H1	Subscription Strategies → User Engagement	0.284	4.112	0.000	Supported
H2	Personalized Offers → User Engagement	0.312	4.456	0.000	Supported
H3	Email Marketing → User Engagement	0.267	3.986	0.000	Supported
H4	User Engagement → Perceived Usefulness	0.740	17.425	0.000	Supported
H5	Perceived Usefulness → Conversion	0.695	14.832	0.000	Supported
H6	Perceived Usefulness → Customer Retention	0.705	15.196	0.000	Supported

Source: Results Processing Data by Author's (2025)

The hypothesis testing results indicate that all proposed relationships are significant and positive. Subscription Strategies have a significant positive effect on User Engagement ($\beta = 0.284$, $p < 0.001$), suggesting that tiered pricing and exclusive benefits effectively increase engagement in local streaming services. Personalized Offers exert the strongest influence among marketing strategy variables ($\beta = 0.312$, $p < 0.001$), showing that customized promotions and targeted recommendations are highly effective in engaging users. Email Marketing also significantly boosts engagement ($\beta = 0.267$, $p < 0.001$), though with a slightly smaller effect than the other two strategies. User Engagement strongly enhances Perceived Usefulness ($\beta = 0.740$, $p < 0.001$), representing the largest coefficient in the model and highlighting its critical role in shaping user perceptions. Perceived Usefulness significantly drives Conversion ($\beta = 0.695$, $p < 0.001$), increasing the likelihood of users upgrading from free to paid subscriptions, and also plays a vital role in Customer Retention ($\beta = 0.705$, $p < 0.001$), encouraging subscribers to maintain their subscriptions over time.

The effect size (f^2) measures the impact of each exogenous construct on an endogenous construct. According to Cohen (1988), f^2 values of 0.02, 0.15, and 0.35 represent small, medium, and large effects, respectively.

Table 6. Effect Size (f^2)

Relationship	f^2	Interpretation
SS → UE	0.112	Small to medium
PO → UE	0.134	Medium
EM → UE	0.118	Small to medium
UE → PU	1.210	Large
PU → CV	0.930	Large
PU → CR	0.983	Large

Source: Results Processing Data by Author's (2025)

The strongest effect in the model is observed in the relationship between User Engagement (UE) and Perceived Usefulness (PU) ($f^2 = 1.210$), indicating that user engagement plays a central role in shaping perceived usefulness, which in turn exerts large effects on both conversion ($f^2 = 0.930$) and customer retention ($f^2 = 0.983$). The effect size analysis also shows that Subscription Strategies (SS) to UE ($f^2 = 0.112$) and Email Marketing (EM) to UE ($f^2 = 0.118$) have small to medium effects, while Personalized Offers (PO) to UE demonstrates a medium effect ($f^2 = 0.134$), highlighting its comparatively stronger influence in driving engagement. These results emphasize that while marketing strategies contribute meaningfully to user engagement, it is the engagement itself—by enhancing perceived usefulness—that becomes the most critical driver of both conversion and long-term loyalty in the local streaming service context.

Discussion

1. Influence of Subscription Strategies on User Engagement

The significant positive effect of subscription strategies on user engagement (H1 supported) confirms that pricing flexibility, exclusive content access, and trial offers are effective tools for attracting and sustaining audience interest, aligning with Kotler & Keller's (2016) emphasis on strategic pricing and value bundling in shaping consumer behavior. In Indonesia's increasingly competitive streaming market, flexible subscription tiers and localized content packages enable platforms to cater to diverse income levels and preferences, boosting active platform use. Price fairness plays a critical role in consumer satisfaction and loyalty, suggesting that platforms should adjust prices to align with consumer expectations [30], as satisfaction derived from fair pricing fosters long-term subscriber retention. For Generation Z, perceived price, usefulness, and ease of use are key determinants of subscription willingness, making competitive pricing and user-friendly interfaces vital for attracting and retaining this demographic [31]. Bundling strategies, such as the Netflix–Telkomsel partnership, can increase purchase intention by emphasizing perceived benefits over symbolic value [32], while mixed-leader bundling may outperform alternatives by reducing the negative effects of valuation discounts on perceived value [33]. Given the heterogeneity of consumer preferences, diverse pricing models like freemium and bundled sales are necessary to optimize satisfaction and profitability, with platforms needing to consider consumer sensitivity to both quality and pricing when developing value-added services [34].

2. Influence of Personalized Offers on User Engagement

Personalized offers emerged as the strongest marketing variable influencing user engagement, supporting prior findings by Kumar & Reinartz (2018) that personalization enhances customer experience by making offers relevant and timely. In Indonesian local streaming services, this can involve tailoring recommendations based on viewing history, cultural preferences, or regional language content, fostering deeper emotional connections and increasing session durations. Advanced personalization techniques, such as hybrid models that combine user-based collaborative filtering with content-based filtering, enable more accurate recommendations by leveraging user similarities and breaking down user–item interaction matrices [35], while localized regularization treats each user and content independently to better capture unique preferences and behaviors (Kourosh, 2018). These methods enhance user engagement by making content discovery more intuitive and aligned with individual interests, which is essential for retention and longer viewing sessions [35]. Moreover, in Indonesia's culturally diverse market, personalization that reflects local languages and cultural nuances can significantly strengthen emotional bonds with audiences [36].

3. Influence of Email Marketing on User Engagement

The significant role of email marketing in driving user engagement reflects its enduring value as a direct communication channel, even though it showed the smallest effect size among the three strategy variables, as it remains essential for reinforcing brand presence, announcing new

releases, and reactivating dormant users. Consistent with Chaffey & Ellis-Chadwick (2019), strategically timed and personalized email campaigns can effectively complement other engagement strategies in the streaming sector. Personalization techniques such as segmentation and dynamic content enable highly targeted email experiences that boost engagement and retention [37], while AI-driven personalization further enhances relevance and timing by using machine learning to analyze customer data and predict optimal send times, thereby improving open rates and engagement metrics [20]. Email marketing also serves as a cost-effective retention tool, maintaining relationships with existing customers by keeping them informed about brands, offers, and updates, thus driving loyalty and sales [38]. Moreover, strategic timing and automation are critical for maximizing impact, with AI tools ensuring that emails are sent at the most effective moments, and automation providing consistency in communication—both of which are vital for sustaining customer relationships [20].

4. User Engagement as a Driver of Perceived Usefulness

The very strong effect of user engagement on perceived usefulness shows that the more actively users interact with a streaming platform, the more they perceive it as valuable in meeting their entertainment needs, aligning with Davis's (1989) Technology Acceptance Model (TAM), which identifies perceived usefulness as a key determinant of behavioral intention. In streaming contexts, engagement activities such as frequent viewing, playlist creation, and social sharing likely enhance both the functional and emotional benefits of the platform. Perceived usefulness has been shown to significantly influence behavioral intention in various digital contexts, including internet usage and crowdsourcing platforms [39], [40], and in the case of Netflix, it is linked to user attitudes that predict platform usage [41]. Such engagement activities provide users with a sense of control and personalization, boosting perceived usefulness while also contributing to enjoyment, both of which drive adoption of social network sites [41]. Streaming services thus deliver a mix of hedonic (emotional) and utilitarian (functional) benefits, reflecting the TAM framework's view that perceived usefulness and enjoyment together are critical for shaping behavioral intentions [42].

5. Perceived Usefulness as a Driver of Conversion and Retention

Perceived usefulness demonstrated strong positive effects on both conversion and customer retention, supporting Venkatesh & Davis's (2000) findings that usefulness perceptions directly influence decision-making and loyalty. This implies that when users perceive a platform as offering meaningful, convenient, and enjoyable experiences, they are more inclined to upgrade to paid subscriptions and maintain them over time. For local streaming services, enhancing perceived usefulness can be achieved through strategies such as expanding content libraries to include diverse genres and binge-worthy options that cater to varied preferences [6], improving app performance to ensure seamless accessibility, intuitive navigation, and technical reliability that foster trust and satisfaction [43], and integrating with popular payment systems to simplify subscription processes, supported by clear cost–benefit offerings and adaptable pricing strategies that encourage commitment to paid plans [43], [44].

6. Theoretical and Practical Implications

From a theoretical perspective, this study extends the Technology Acceptance Model (TAM) and relationship marketing literature by highlighting the dual mediating roles within the proposed framework: user engagement mediates the relationship between marketing strategies and perceived usefulness, while perceived usefulness mediates the link between engagement and key business outcomes such as conversion and retention. The structural model confirms that engagement is not merely a passive outcome of marketing activities but a critical psychological state that actively shapes user perceptions, influences decision-making, and ultimately drives business performance in the streaming service context.

From a managerial perspective, the findings underscore several actionable priorities. First, personalization should be prioritized, as it exerts the strongest direct influence on engagement. Second, subscription strategies must strike a balance between affordability and perceived exclusivity to effectively appeal to diverse market segments. Third, email marketing remains a cost-effective engagement channel, provided it is both personalized and strategically timed. Finally, enhancing user engagement should be maintained as an ongoing strategic focus, given its significant role in shaping perceived value and, in turn, driving both conversion and long-term customer retention.

CONCLUSION

This research confirms that effective subscription strategies, personalized offers, and email marketing campaigns are critical drivers of user engagement in Indonesian local streaming services. Among these, personalized offers demonstrated the strongest influence, indicating that tailoring content and promotions to individual preferences significantly boosts platform interaction. Subscription strategies and email marketing also contribute positively to sustaining engagement, reinforcing their strategic importance. Furthermore, the study establishes that user engagement plays a pivotal role in enhancing perceived usefulness, which is a key determinant of both conversion and customer retention. These findings align with the extended Technology Acceptance Model (TAM), highlighting that engagement is not only an outcome of marketing strategies but also a vital mechanism that connects these strategies to higher perceptions of platform value.

From a practical perspective, streaming service providers should focus on refining personalization algorithms to deliver more relevant and timely content, offering flexible yet affordable subscription plans to appeal to varied market segments, and leveraging targeted email marketing to maintain active user participation. By consistently enhancing user engagement, platforms can strengthen perceived usefulness, ultimately increasing the likelihood of users transitioning to paid subscriptions and fostering long-term loyalty in a competitive market.

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