PARADOKS Jurnal Ilmu Ekonomi Vol. 8 No. 3 (2025)
May – July
e-ISSN : 2622-6383
doi: 10.57178/paradoks.v8i3.1430

The Role of Growth Hack Strategy in Influencing Customer Purchase Intention in a New EdTech Start-up: A Case Study of Smartz Centre

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Abstract

Customer purchase intention is a critical metric for measuring sustainable growth in educational technology (EdTech) startups. This study aims to examine which growth hack strategy variables, based on the AARRR framework by Bohnsack and Liesner (2019), significantly influence customer purchase intention and to provide strategic recommendations for Smartz Centre, a new EdTech platform in Indonesia. A quantitative approach was applied using Partial Least Squares Structural Equation Modeling (PLS-SEM), with five main variables: acquisition, activation, revenue, retention, and referral. Data were collected through an online questionnaire involving 211 respondents, consisting of both internal users (students and parents) and external potential users. The model analysis demonstrated that all variables have a significant influence on customer purchase intention, with the highest path coefficients recorded for revenue (β = 0.412), retention (β = 0.401), and referral (β = 0.387). Acquisition (β = 0.201) and activation (β = 0.195) also showed positive and statistically significant contributions, although to a lesser extent. The model explained 87.2% of the variance in customer purchase intention (R^2 = 0.872), indicating a strong predictive power. These results suggest that while acquiring and activating new users remain essential, greater emphasis should be placed on monetizing existing users, maintaining loyalty, and utilizing word-of-mouth referrals to drive sustainable customer intent to purchase. Theoretically, this study contributes to the development of a data-driven growth hack framework adapted to the EdTech context. Practically, the findings support Smartz Centre in designing targeted strategies, such as premium service bundling, personalized retention programs, and structured referral incentives, to increase purchase conversion. Limitations include the absence of deeper segmentation and qualitative insight. Future research should consider mixed-method approaches and longitudinal data to capture changes in purchase behavior over time.

Keywords: *Growth Hack; EdTech; Acquisition; Activation; Revenue; Retention; Referral*

Introduction

In the digital era, educational technology (EdTech) has become one of the fastest growing sectors worldwide. EdTech offers more flexible and personalized learning solutions, allowing students to learn anytime and anywhere. According to Statista (2024), the online education revenue is estimated to reach USD 1.58 billion in 2025. It is projected to experience an annual growth of 0.23% until 2029, with an estimated total revenue reaching USD 1.59 billion. The average revenue per user is estimated at USD 74.74. Meanwhile, the number of users is predicted to reach 26 million people in 2029, with a user penetration rate of 7.5% in 2025. According to Cavallo et al. (2023), the growth of EdTech in Indonesia is also driven by the public's desire to get a more personal, efficient, and tailored learning

experience. In addition, the COVID-19 pandemic has also accelerated the use of EdTech platforms, because almost all educational institutions in Indonesia have been forced to switch to online learning systems

Smartz Centre is an EdTech company founded in 2022 and focuses on online tutoring services based on the Cambridge curriculum. This company is here to fill the gap in the needs of international school students who need quality academic assistance online. With the name change from Cambridge Tutoring Centre to Smartz Centre in late 2024, the company is striving to build a more inclusive brand and is ready to expand its services to other international education programs in the future.

Although Smartz Centre has shown significant growth in digital reach, the main challenge is the low conversion from awareness to activation and purchase stages. Based on data from January 1 to March 31, 2025, most of the traffic came from TikTok's For You tab (85.7%), but did not result in deeper interactions such as profile clicks or service purchases. In addition, although word of mouth contributed 73% of total customer acquisition, digital channels only contributed 27%, indicating weak integration between digital content and sales funnels (Statista, 2024). In addition, this conversion problem is increasingly visible in activation data, where only 41% of potential customers successfully entered the active learning stage, while 36% experienced drop-off and 23% bounced directly without further interaction. The lack of a structured follow-up strategy and the lack of an effective nurturing system are obstacles to optimally driving customer activation (Saputra & Windasari, 2022). Therefore, a growth hack strategy is needed to solve the business issues faced by Smartz Centre.

Growth hacking is a structured and measurable approach to driving customer purchase intention, especially in a dynamic start-up environment. According to Bohnsack & Liesner (2019), growth hacking is divided into five stages of the customer lifecycle: acquisition, activation, revenue, retention, and referral. Each stage has a specific strategy designed to optimize the customer journey from the initial stage to becoming a customer (fig.1).

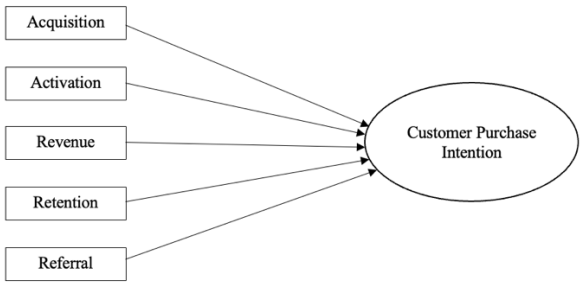

Figure 1. Conceptual Framework of the Research

Source: Internal framework based on the research of Bohnsack & Liesner (2019)

In the acquisition stage, the strategy focuses on attracting new customers through techniques such as cross-publishing, custom audiences, SEO, and content and inbound marketing. The activation stage aims to ensure a good initial user experience through calls-to-action, effective landing pages, freemium, and gamification. In the revenue stage, companies monetize services with strategies such as scarcity and dynamic pricing. The retention stage emphasizes efforts to retain customers with engagement loops, loyalty programs, and social communities. The referral stage encourages customers to recommend products through referral programs and network effects. Bohnsack and Liesner (2019) also classify growth hack strategies based on resource intensity and speed of impact.

Low-cost, fast-impact strategies such as call-to-action and lead magnets are suitable for the early stages, while long-term impact strategies such as engagement loops and loyalty programs require more resources. Through this mapping, companies can choose strategies according to priority and capacity.

Based on these issues, this study aims to identify which variables of the growth hack strategy significantly influence customer purchase intention and to formulate strategic recommendations for Smartz Centre in optimizing growth hack strategies that effectively increase customer purchase intention.

Methods

This study uses a quantitative design with the aim of analyzing the influence of growth hacking strategy on customer purchase intention at Smartz Centre, an EdTech start-up based on Cambridge Curriculum. This design is appropriate to answer research questions regarding the relationship between variables in growth hacking strategy.

The population in this study was active Smartz Center students, their parents or guardians, and the external respondents who are the potential customers, with a total population of 211 people. Sampling was carried out using purposive sampling with the criteria of respondents who had used the service for at least the last six months, as well as potential customers from the external Smartz Centre. The calculation of the minimum number of samples used the Slovin formula with an error rate of 5%, resulting in a minimum of 146 respondents. The total respondents collected in this study was 211 people, exceeding the minimum number required.

Primary data were collected using an online questionnaire compiled based on growth hacking strategy indicators according to Bohnsack and Liesner (2019). Meanwhile, the secondary data were obtained through a literature review of various relevant academic sources. The research instrument used a 5-point Likert scale to measure the level of respondent agreement with statements related to the variables: Acquisition (AQ), Activation (AT), Retention (RT), Referral (RF), and Customer Purchase Intention (CPI). The distribution of questionnaires was carried out via WhatsApp, Instagram, and the Smartz Center internal group. The selection of this method was adjusted to the characteristics of respondents who are active users of digital services.

Data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) with the help of SmartPLS 4.0 software. The analysis process includes: evaluation of the outer model to test the validity and reliability of the construct with AVE indicators (>0.5), Composite Reliability (CR>0.7), and Cronbach's Alpha (>0.7). Furthermore, the evaluation of the inner model to test the relationship between variables through the path coefficient, t-statistic, and R-square. Finally, significance testing using the bootstrapping technique of at least 100 subsamples. The use of PLS-SEM was chosen because it is able to analyze models with latent constructs, is suitable for small to medium samples, and is relevant in digital strategy-based research (Hair et al., 2017).

Result and Discussion

Results

Based on the survey results from 211 respondents, it is known that the proportion of students (47.2%) and parents/guardians of students (52.8%) is almost balanced. This shows that both parties contribute equally in providing feedback on Smartz Center services, thus providing a comprehensive view from the perspective of direct users and supporters of the learning process (Hair et al., 2021).

The distribution of respondents' gender is also almost even, with 49.6% female and 50.4% male, indicating that respondents from both genders are represented proportionally and inclusively. This is important to ensure that the evaluation results reflect a balanced perception in terms of gender (Hair et al., 2021).

In terms of age, the majority of respondents fall within the 13–16 age range (26.4%), indicating they are mostly students preparing for the Cambridge IGCSE program. This is followed by the 31–40 age group (25.6%), likely representing parents or guardians actively involved in their children's education. The next largest group is aged 17–20 years (18.4%), likely to be Cambridge A-Level students or older siblings supporting family education needs. Other age groups include respondents aged 21–30 years (7.2%), 40–50 years (11.2%), 9–12 years (5.2%), 50–60 years (5.6%), and a small percentage (0.4%) in the 14–17 year category. These data illustrate a diverse range of user demographics, with a balance between student and parental perspectives (Sekaran & Bougie, 2019).

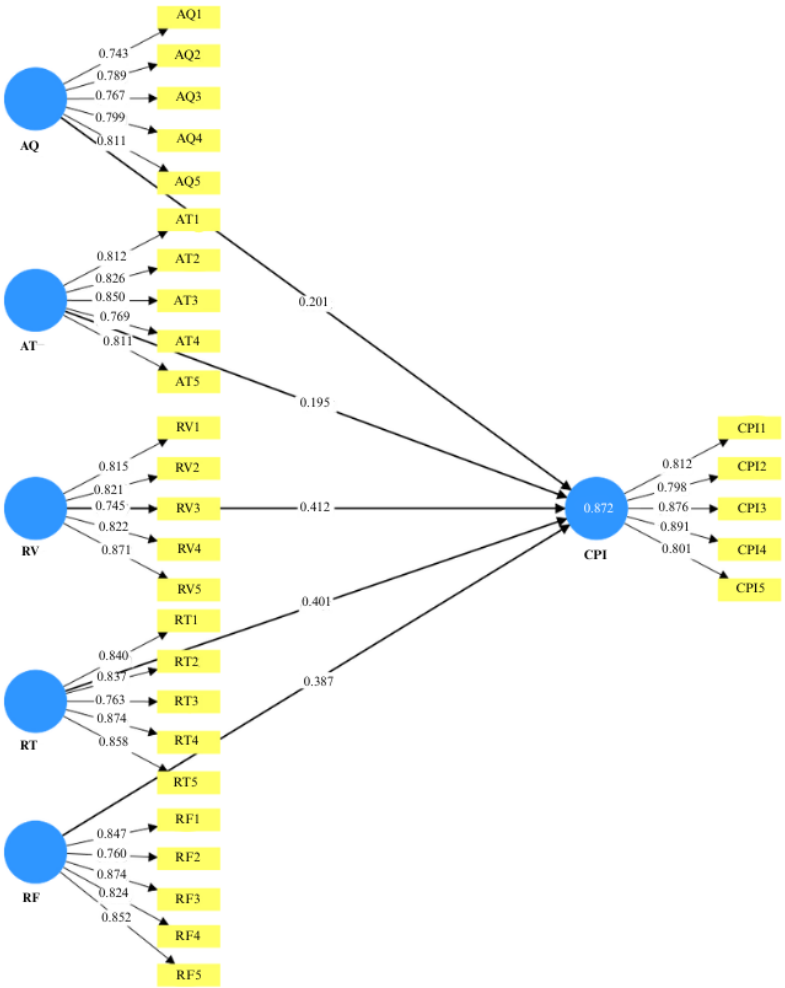

Figure 2. Results of Partial Least Squares Structural Equation Modeling (PLS-SEM)
Source: SmartPLS 4

Based on Figure 2, model analysis using the Partial Least Squares Structural Equation Modeling (PLS-SEM) method shows that all constructs meet adequate validity and reliability criteria. All indicators have outer loadings above 0.70, indicating good convergent validity (Hair et al., 2021). Internal reliability testing through Cronbach's Alpha and Composite Reliability (CR) also shows in Table 1, the values are above 0.70 for all constructs, indicating that this research instrument is reliale (Hair et al., 2021). Furthermore, the Average Variance Extracted (AVE) value for each construct is above 0.50, confirming that the model has strong convergent validity (Fornell & Larcker, 1981).

Table 1. Results of Construct Reliability Testing

Variable	Cronbach's Alpha	Composite reliability (rho_c)	Average variance extracted (AVE)	Result
AQ	0.801	0.906	0.657	Valid dan reliable
AT	0.836	0.902	0.665	Valid dan reliable
RV	0.849	0.917	0.683	Valid dan reliable
RT	0.866	0,919	0.695	Valid dan reliable
RF	0.810	0,913	0.678	Valid dan reliable
CPI	0.863	0,915	0.681	Valid dan reliable

Source: SmartPLS 4

In terms of path coefficient analysis, the Revenue (RV) strategy has the greatest influence on Customer Purchase Intention (CPI) with a coefficient of 0.412, followed by the Retention (RT) strategy of 0.401 and the Referral (RF) strategy of 0.387. Although the path coefficients of Acquisition (0.201) and Activation (0.195) are relatively lower compared to the other variables, both still demonstrate positive and meaningful contributions to Customer Purchase Intention, as their values exceed the commonly accepted threshold of 0.10 for practical significance in behavioural research (Chin, 1998; Hair et al., 2021). The findings show that monetization, user loyalty, and peer recommendation are key factors influencing customer purchase decisions in EdTech. Strong revenue impact highlights the importance of clear pricing and perceived value, while retention emphasizes the role of engagement and loyalty programs in driving repeat usage. Referral also plays a significant role through word-of-mouth and peer influence. These align with Ellis & Brown's (2017) idea that sustainable growth depends on long-term value and user advocacy.

The coefficient of determination (R^2) for the Customer Purchase Intention (CPI) construct is 0.872 (Table 2), indicating that 87.2% of the variation in customer purchase intention can be explained by the five main strategies analyzed in the model (Hair et al., 2021). This indicates that the structural model built has very good predictive ability. Discriminant validity testing with the Heterotrait-Monotrait Ratio (HTMT) shows that all HTMT values are below the threshold of 0.90, indicating that the constructs in this model measure different concepts and do not overlap with each other (Henseler et al., 2015).

Table 2. R-square result

	R-square	R-square adjusted
CG	0.872	0.871

Source: SmartPLS 4

The overall shows that all five variables significantly affect Customer Purchase Intention, with Revenue, Retention, and Referral as the strongest drivers. Acquisition and Activation also contribute, highlighting the importance of both early engagement and long-term strategies, supporting the growth hacking approach of optimizing the entire customer journey.

Discussion

Based on the PLS-SEM analysis, Smartz Centre should prioritize Revenue (0.412) and Retention (0.401) as the core focus areas for boosting Customer Purchase Intention (CPI). These findings highlight that sustainable growth is not solely dependent on acquiring new users but on increasing the value of existing ones through monetization and long-term engagement. This aligns with Osterwalder & Pigneur's (2010) assertion that a strong business model is built on solid revenue streams that reflect real customer needs.

Although Acquisition (0.201) and Activation (0.195) show smaller path coefficients, their statistical significance indicates they still play important roles in initiating the user journey. Smartz Centre should adopt more data-driven acquisition tactics such as predictive targeting and lookalike campaigns (Ellis & Brown, 2017; Patel & Taylor, 2014), and refine onboarding processes to deliver early value through quick, meaningful "aha moments" (Croll & Yoskovitz, 2013). McKinsey & Company (2020) also found that improving activation can increase retention by up to 50%, underscoring its strategic relevance.

The Referral variable (0.387) also demonstrates a notable impact on CPI. While not the strongest driver, its cost-effectiveness and organic nature make it a strategic lever for growth. Structuring referral programs with transparent rewards and social sharing features can drive exponential user expansion (Kumar et al., 2010). With an R^2 of 0.872, the model confirms that all five AARRR variables contribute meaningfully to CPI, supporting Ries's (2011) build-measure-learn principle as the foundation for a scalable and sustainable growth strategy in EdTech.

Conclusion and Recommendation

Based on the research results, it can be concluded that all five growth hack variables, Acquisition, Activation, Revenue, Retention, and Referral, significantly influence Customer Purchase Intention at Smartz Centre. Among them, Revenue (0.412), Retention (0.401), and Referral (0.387) are the most impactful drivers. These findings support previous studies (Ellis & Brown, 2017; Bohnsack & Liesner, 2019) and highlight the importance of monetization, loyalty, and peer recommendation. Although Acquisition and Activation have lower coefficients, they remain essential in shaping early user experience and purchase behaviour.

Smartz Centre should prioritize Revenue and Retention by offering flexible pricing, premium services, and loyalty programs, aligning with Kumar & Reinartz (2016). Acquisition and Activation strategies need restructuring through segmented, content-based marketing and improved onboarding (Croll & Yoskovitz, 2013). The Referral program should include rewards like discounts or exclusive access to tap into its potential, as supported by Aral &

Walker (2011). Integration of these efforts through a personalized digital ecosystem and CRM-driven analytics is key to long-term growth.

To maintain strategy effectiveness, ongoing evaluation and A/B testing are crucial (Patel et al., 2014). However, the study has limitations: it focuses on new EdTech start-ups, uses subjective survey data, and does not account for external factors like economic or technological changes. These limitations suggest caution in generalizing the findings to other contexts.

Referece

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