

Exploring Factors Influencing Parent's Purchase Intention Towards Mathematics Educational Comics

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Abstract

This research investigates the factors influencing parents' purchase intentions towards mathematics educational comics by expanding the Theory of Planned Behavior. Using a qualitative approach, the study conducted semi-structured interviews with ten parents of children in grades 1 to 3, selected through purposive sampling. The objective was to explore how various factors affect parents' decisions to purchase these educational materials. The study identifies several key characteristics that impact purchase intentions. Notably, teaching attributes such as the frequency and duration of use and parental attributes play a crucial role. The research also ranks the factors influencing purchase intentions in the following order: Perceived Behavioral Control, Attitude, Perceived Ease of Use, Perceived Value for Money, Subjective Norms, and Perceived Product Quality. This hierarchy reflects how parents prioritize these elements when deciding whether to invest in educational comics for their children. The findings suggest that Perceived Behavioral Control and Attitude are the most influential factors, highlighting the importance of how parents feel they can manage and benefit from the educational product. Perceived Ease of Use and Perceived Value for Money follow, emphasizing the need for user-friendly products that offer good value. Subjective Norms and Perceived Product Quality are also important but have a lesser impact than other factors. These insights are valuable for developing business strategies and marketing plans. By understanding and addressing these factors, companies can tailor their approaches to meet parents' needs better and enhance the appeal of mathematics educational comics.

Keywords: Children's Mathematics Educational Comics, Purchase Intention, Theory of Planned Behavior

A. INTRODUCTION

Education today is expected to foster students' creative thinking, flexibility, problem-solving, collaboration, and innovation—skills crucial for success in both work and life (Pacific Policy Research Center, 2010). Despite these expectations, the Indonesian education system ranked 74th out of 79 countries in 2019, making it one of the lowest global performers (Programme International Student Assessment, 2018, cited in Cipta Pranama et al., 2021). One potential reason for this poor performance could be the prevalent procedure-oriented teaching approaches, particularly in subjects like mathematics (Hiebert et al., 2005; Mann, 2006; NCTM; NMAP; Stigler & Hiebert, 1999; Wallis & Steptoe, 2006).

In order to address these issues and enhance students' development in areas such as religious spirituality, self-control, personality, intelligence, and necessary skills, it is essential to improve the learning environment and processes (Arwanda et al., 2020; Subadi et al., 2013; Suparlan, 2017). One proposed solution is creating a "mathematics education comic book," which aims to offer an engaging and effective educational tool. Educational comics can be a valuable resource for parents seeking quality educational products for their children.

Research has shown that parents' purchasing decisions for educational products are influenced by perceptions, interpretations, norms, and attitudes (Achelia Setiani et al., 2022). For example, studies in China highlight a strong correlation between positive attitudes and perceived product quality in childcare services (Wang et al., 2021). In the U.S., research has examined factors influencing parents' choices of educational toys (Richards et al., 2020). Similar studies in Indonesia have explored factors affecting parents' decisions to buy educational toys for young children (Achelia Setiani et al., 2022). However, previous

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research has not considered perceived ease of use as a factor nor focused on mathematics educational comics for children in grades 1-3.

This study aims to fill this gap by examining the factors influencing parents' intentions to purchase mathematics educational comics in Indonesia. Using the Theory of Planned Behavior, which predicts behavioral intentions and can be enhanced by additional external factors such as product quality, perceived value for money, and perceived ease of use (Rivis & Sheeran, 2003), this research seeks to understand the decision-making process of parents in selecting educational materials for their children.

B. RESEARCH METHOD

Qualitative research is instrumental in providing a deep understanding of specific phenomena, offering insights that can significantly influence practice (Lochmiller, 2016, cited in Cho et al., 2020). This study employs a semi-structured interview method, where researchers prepare a list of topics and questions to guide the discussion. However, the interview is flexible, allowing questions and topics to evolve based on the conversation (Saunders et al., 2019). The target population for this research comprises parents of children in grades 1-3 in Indonesia, selected for their relevance to the study's focus. In order to enrich the findings and inform the development of educational products, particularly mathematics educational comics, interviews are also conducted with experts in the field. Purposive sampling is used to identify participants who can provide valuable insights. Data analysis involves two stages of coding: the first cycle (descriptive coding) and the second cycle (pattern coding), ensuring a thorough examination of the data and identification of key themes.

C. RESULTS AND DISCUSSION

Several key determinants emerge when examining factors influencing parents' intentions to purchase mathematics educational comics. The most dominant factor is Perceived Behavioral Control. This concept reflects parents' ability to manage their resources, such as time, money, and flexibility, to make a purchase. The findings align with previous research (Achelia et al., 2022), highlighting that parents are more likely to buy educational comics when they feel they can effectively control these factors.

Attitude is the second most influential factor. Parents' positive attitudes toward educational products significantly impact their purchasing decisions. This finding supports earlier studies (Achelia et al., 2022) and aligns with the Theory of Planned Behavior (Ajzen, 1991), suggesting that Perceived Behavioral Control and Attitude play crucial roles in decision-making. Positive perceptions of educational comics' impact, benefits, and efficiency enhance parents' willingness to purchase them.

The third factor, Perceived Ease of Use, is notable because it was not considered in previous studies (Achelia et al., 2022). This factor pertains to how easy the educational comics are to access and use. Parents value user-friendly products that require minimal effort to utilize (Davis, 1989). During interviews, parents emphasized the importance of ease in accessing and understanding the comics, which positively influences their acceptance and purchase intentions (Ariffin et al., 2021).

Perceived Value for Money ranks fourth. Parents are concerned that the benefits of the product should justify its cost. They prefer affordable products that fit within their budget and offer good value relative to their price (Wang et al., 2021). The product's benefits and quality must align with the price to meet parents' expectations and provide long-term value for their children.

Subjective Norms are the fifth factor. Recommendations from family, friends, neighbors, and educational experts influence parents. Positive testimonials and endorsements from trusted sources can significantly impact their purchase decisions. However, parents critically evaluate these recommendations and consider the ongoing promotional content as part of their decision-making process.

Lastly, Perceived Product Quality is the sixth factor. Consistent with previous studies (Achelia et al., 2022), the quality of educational comics is a crucial consideration. Parents look for high standards, added value, and innovations such as technological integrations to enhance the educational impact. Suggestions from parents during interviews included incorporating gamification, apps, and multimedia elements to increase engagement and effectiveness.

These factors collectively influence parents' purchasing intentions for mathematics educational comics, offering valuable insights for developing effective educational products and marketing strategies.

D. CONCLUSION

The analysis reveals that all variables from the Theory of Planned Behavior and additional variables significantly influence parents' purchase intentions for mathematics educational comics. The most dominant factor is Perceived Behavioral Control, followed by Attitude. These findings are consistent with previous research that expanded the Theory of Planned Behavior (Achelia et al., 2022). In descending order of influence, the subsequent factors are Perceived Ease of Use, Perceived Value for Money, Subjective Norms, and Perceived Product Quality.

Experts recommend several improvements for future editions of the comics, including simplifying content delivery and language, aligning learning materials with the curriculum, and enhancing the visual and narrative design. Additionally, incorporating ethical values and character development in the stories is crucial for supporting children's character growth.

Lab Buddy should consider creating a parent community through WhatsApp and social media to effectively market mathematics educational comics, which can facilitate product introduction and interaction. Organizing engaging math workshops can also serve as an effective go-to-market strategy. Campaigns highlighting success stories and the positive impact of the comics can enhance product perceptions. Offering affordable prices and promotions such as discounts, bundling, and memberships will attract customers.

This study has limitations, including a small sample size of 10 informants from specific regions (Bandung, Jakarta, and Padang), all within the 30-40 age range and with experience in alternative learning methods. Future research should expand the sample size and geographic scope to enhance generalizability. Additionally, examining factors such as family economic status, parental education, and cultural differences across various Indonesian cities could provide deeper insights.

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