THE FACTORS INFLUENCE INTENTION TO USE PARENTAL CONTROL SOFTWARE AMONG MALAYSIAN PARENTS: THE UTAUT MODEL

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ABSTRACT

Parental controls are a method of controlling who has access to smart devices because individuals may regulate who else in their family members, particularly younger ones, sees inappropriate websites. Indeed, parental control software provides the ability to select which applications are permitted on online devices, and it may also be used to see content loaded as well as the purpose of device usage among parents towards their child, particularly for educational purposes. In actuality, Malaysian parents have little desire to employ parental control software to monitor their children's gadget activities, particularly for educational purposes. Hence, the primary aim of this research is to ascertain the factors that impact the intention of Malaysian parents to utilize parental control software. The study employs four key variables: performance expectancy, effort expectancy, social influence, and facilitating control. Employing a quantitative methodology, the investigation gathers 374 responses through a Google Form survey. The data is subsequently analyzed using SPSS 22.0 and SmartPLS 4.0. The results indicate that both social influence and facilitating control significantly influence the intention to use parental control software. These findings hold the potential to inform government agencies and parental control software developers about the crucial role these two factors play in the development of effective parental control software solutions.

Keywords: effort expectancy, facilitating control, intention to use parental control software, performance expectancy, social influence

INTRODUCTION

Parental controls serve as a method for managing access to smart devices, allowing individuals to determine who within their family, particularly younger members, can access websites deemed inappropriate (Altarturi, Saadoon, & Anuar, 2020). According to (Altarturi et al., 2020) and (Martins et al., 2020), parental controls encompass features or software that enable individuals to supervise and limit online activities. These tools encompass a diverse range of programs that can block and filter websites and content, track online actions, set time restrictions for online usage, and review browsing history and communications, as noted by

(Altarturi et al., 2020). Consequently, certain functionalities within parental control software involve recording keystrokes, capturing screen images of activities, logging conversations on various websites or apps, and documenting the location of devices such as laptops, tablets, and phones (Altarturi et al., 2020; Martins et al., 2020). The majority of parental control software is designed with a user-friendly interface, making it straightforward to navigate and utilize. For instance, as illustrated by Altarturi et al. (2020), parents can establish control over their child's iPhone using Microsoft Family Safety, a tool compatible with Windows Vista and later versions. Furthermore, certain functionalities might be available on smartphones but not on tablets, as pointed out by Altarturi et al. (2020), (Doggui, Gallant, & Bélanger, 2021), and Martins et al. (2020). This underscores the importance of parents carefully selecting a suitable parental control solution to ensure that the features offered align with their specific requirements. Furthermore, (Alelyani, Ghosh, Moralez, Guha, & Wisniewski, 2019) argue that individuals have the capacity to tailor their level of online activity control based on factors such as their child's age, maturity, and any specific challenges they may be facing. Nevertheless, Alelyani et al. (2019) emphasize the importance for parents to prioritize parental control software usage without undermining the child's safety, even though maintaining privacy remains significant. As a result, parents are encouraged to provide their child with their own email account, phone, or other device, while retaining the authority to supervise its usage through parental control software (Alelyani et al., 2019). This underscores the idea that parents should be capable of monitoring their child's online actions and interactions, and parental control software serves as a valuable tool for accomplishing this objective.

The rapid and substantial surge in online activity has further exacerbated the issue of child internet safety, a concern that has long troubled parents even prior to the onset of the pandemic. The recent global lockdown measures instituted due to the pandemic have led to a significant escalation in the duration that children spend on the internet. In the United States, the proportion of children dedicating more than six hours per day to online activities has risen by 50 percent since the pre-crisis period, accounting for 48.0 percent of the youth (Malaysian Communications and Multimedia Commission (MCMC) in 2020). This trend is corroborated by the research conducted by the Association of Play Industries, which reveals a 50 percent surge in children's discretionary screen time in less than ten years, a situation paralleled in Malaysia where 56.3 percent of young internet users possess their own personal device (MCMC in 2020). Furthermore, in the year 2020, only a minority of parents, specifically 34.4 percent, opted to employ parental control mechanisms to safeguard their children's online activities. The predominant action taken by Malaysian parents was the implementation of restrictions and limitations on internet usage (Malaysian Communications and Multimedia Commission (MCMC), 2020). Alongside setting constraints on internet access (72.8 percent), parents commonly chose to remain in close proximity to their children (57.4 percent), engage in discussions about online safety (50.0 percent), or monitor their child's social media profiles (47.7 percent), three prevalent physical strategies adopted by parents in Malaysia to regulate their child's internet usage (MCMC, 2020).

Therefore, parental control software offers a convenient solution for parents to gain visibility into their child's activities, enabling them to effectively monitor their device usage. This software empowers parents to make choices about permitted applications on online devices, while also allowing them to observe content being accessed and the purpose behind device usage (Alelyani et al., 2019; Altarturi et al., 2020; Doggui et al., 2021). This highlights the substantial role of parental control software in not only enhancing child safety but also facilitating parental oversight of educational progress. Consequently, the present study aims to investigate the intention of Malaysian parents to adopt parental control software, particularly

in light of the limited awareness among Malaysian parents regarding the educational benefits that such software can offer.

Below are the three hypotheses for this study:

H1: There is a significant relationship between performance expectancy and the intention to use parental control software among Malaysian parents.
H2: There is a significant relationship between effort expectancy and the intention to use parental control software among Malaysian parents.
H3: There is a significant relationship between social influence and the intention to use parental control software among Malaysian parents.
H4: There is a significant relationship between facilitating conditions and the intention to use parental control software among Malaysian parents**.**

LITERATURE REVIEW

Intention to use parental control for education purpose

Intention to use parental control for education purpose involves the individual's deliberate plan and motivation to utilize specialized software tools designed to monitor and regulate their child's digital activities, all with the primary objective of fostering educational growth and learning. This intention reflects a conscious desire on the part of the parent or guardian to actively engage in the technological supervision of their child's online interactions, content consumption, and device usage in a way that aligns with educational objectives. Parents or guardians who have the intention to use parental control for education purpose are motivated by a sense of responsibility to create a supportive and conducive online environment for their child's learning. They recognize the potential benefits of leveraging technology to guide and facilitate their child's educational exploration while ensuring that their online experiences remain aligned with educational goals.

Drawing from the insights of (Venkatesh, Morris, Davis, & Davis, 2003), it is established that an individual's inclination to adopt technology is mirrored by their intention to use it. Consequently, intention to use has been selected as a reliable indicator of eventual technology adoption. In alignment with this, the intention to use, as conceptualized in this study, refers to an individual's willingness to employ parental control software for the purpose of overseeing their child's education. This intention in this study is shaped by several factors, including performance expectations, ease of use, social influence, and facilitating conditions.

Performance Expectancy

Performance expectancy refers to the extent to which an individual believes that utilizing a system will lead to improvements in their job performance, as described by Venkatesh et al. (2003). This concept is typically measured through variables related to perceived usefulness, extrinsic motivation, job fit, relative advantage, and outcome expectations. It holds significance in both voluntary and mandatory contexts and is a strong predictor of the intention to use (Rahi, Ghani, Alnaser, & Ngah, 2018; Tseng, Lin, Wang, & Liu, 2022). In the specific context of this study, performance expectancy is defined as the degree to which an individual perceives that adopting parental control software would contribute to enhancing the educational progress of their child.

Effort Expectancy

Effort expectancy is characterized as the perceived level of simplicity associated with utilizing a system (Venkatesh et al., 2003). This variable's interpretation is commonly grounded in the UTAUT model, which considers factors like perceived usability and complexity. The impact of this construct diminishes with prolonged technology use (Chauhan, Jaiswal, & Kar, 2018). Venkatesh et al. (2003) defines effort expectancy as "the ease with which a system can be used," encompassing the extent of effort required to operate the system, irrespective of its ease of use. In the specific context of this study, effort expectancy is defined as the extent of exertion or difficulty that individuals associate with operating parental control software for educational monitoring of their child's online activities.

Social Influence

Social influence is characterized as the extent to which an individual believes that significant others, such as family and friends, expect them to adopt a new method (Venkatesh et al., 2003). Both social influence and social impact underscore the idea that people adjust their behavior based on how others perceive them. This influence becomes particularly noteworthy when technology usage is mandatory (Venkatesh et al., 2003). In cases where technology use is legally required, societal influence plays a crucial role, even if the individual's personal choice may not align with this obligation (Venkatesh et al., 2003). This nuanced effect of the construct is evident in subsequent studies that support the model (Chauhan, Kumar, & Jaiswal, 2022). In the specific context of this study, social influence is defined as the degree to which an individual perceives that the expectations of third parties, including family and friends, influence their decision to use parental control software for educational monitoring purposes.

Facilitating control

The extent to which an individual believes that an organization and the technological infrastructure are in place to support the utilization of a system" is referred to as "facilitating conditions" (Venkatesh et al., 2003). Facilitating conditions directly and positively impact the intention to use, although this influence becomes less pronounced after initial use. Consequently, the model posits that "facilitating conditions have an immediate and substantial impact on usage behavior" (Venkatesh et al., 2003). In the specific context of this study, facilitating conditions are defined as the degree to which an individual perceives their own skills, knowledge, and ability to effectively employ parental control software for educational purposes concerning their child's online activities.

METHODOLOGY

This study primarily relied on quantitative research to gather essential data. The focus of the research was on Malaysian parents. To ensure a suitable pool of respondents with shared characteristics, a non-probability convenience sampling method was adopted for the sampling process. Moreover, the decision to use a sample size of 350 was influenced by previous studies, aimed at ensuring analysis stability and minimizing the likelihood of encountering incomplete

or missing data The researchers employed online surveys designed using Google Form to collect data from a total of 374 respondents who were parents in Malaysia. The final dataset comprised 374 suitable responses, meeting the sample size requirement for this study. The collected data was subjected to analysis using SPSS version 22.0 and SmartPLS version 4.0. The study was framed within a research paradigm, with performance expectancy, effort expectancy, social influence, and facilitating control being treated as independent variables, while the intention to use parental control software served as the dependent variable. Through the application of a measurement analysis model, the researchers assessed the reliability and validity of the items used in this study. The core objectives of the structural model analysis encompassed uncovering the relationships between the different categories and assessing the validity of the study's hypotheses.

RESULTS

Demographic profile

Table 1 provides an overview of the frequency and percentage distribution of demographic details for the 374 selected respondents. The table presents data on factors such as gender, age, ethnicity, educational history, and average monthly income.

Table 1
The summary of demographic profile

Descriptions	Frequency	Percentage
Gender		
Male	97	25.9
Female	277	74.1
Age		
18 to 24	8	2.1
25 to 31	160	42.8
32 to 38	150	40.1
39 to 45	43	11.5
46 to 52	9	2.4
53 and above	4	1.1
Ethnicity		
Malay	243	65.0
Chinese	59	15.8
Indian	52	13.9
Others	20	5.3
Educational Background		
Secondary School Certificate	58	15.5
Diploma Certificate	205	54.8
Bachelor Degree	105	28.1
Master Degree	6	1.6

The provided table highlights the survey's results, indicating that the majority of participants (277 individuals, constituting 74.1%) are female, while 97 respondents (25.9%) are male. Among the age groups, the largest segment consists of those aged between 25 and 31, totalling

160 responses (42.8%). Furthermore, a significant proportion of respondents (205 individuals, making up 54.8%) reported holding a diploma certificate as their highest educational qualification. Lastly, in terms of ethnicity, the Malay group emerges as the predominant one, comprising 243 participants (65%), followed by the Chinese group with 59 participants (15.8%).

Measurement Model Analysis

The validation and reliability of the constructed measures for the research are assessed through an examination of the measurement model. The outcomes of the analysis of this study's measurement model can be observed in the presented Table 2.

Table 2
The Measurement Model Analysis Result

Construct	Item	Loading	CR	AVE
Performance Expectancy	PER1	0.756	0.949	0.726
	PER2	0.792		
	PER3	0.840		
	PER4	0.851		
	PER5	0.823		
	PER6	0.849		
Effort Expectancy	EE1	0.850	0.949	0.726
	EE2	0.846		
	EE3	0.856		
	EE4	0.856		
	EE5	0.858		
	EE6	0.841		
	EE7	0.856		
Social Influence	SI1	0.868	0.920	0.697
	SI2	0.864		
	SI3	0.833		
	SI4	0.727		
	SI5	0.873		
Facilitating Control	FC1	0.845	0.943	0.735
	FC2	0.858		
	FC3	0.868		
	FC4	0.870		
	FC5	0.847		
	FC6	0.853		
Intention to use	INT1	0.883	0.931	0.781
	INT2	0.874		
	INT3	0.894		
	INT4	0.860		

The data presented in the above table demonstrates the authenticity and reliability of the variables and indicators used in this study. As per (Hair Jr, Hult, Ringle, & Sarstedt, 2016), loading values should exceed 0.708, while the average variance extracted (AVE) values should be above 0.5. Additionally, a composite reliability (CR) scores higher than 0.8 is considered essential (Henseler & Chin, 2010). The subsequent section will delve into the four assessments conducted in the analysis of the measurement model.

Discriminant Validity

In order to detect potential issues of multicollinearity among the variables in this study, discriminant validity analysis was conducted. Following Hair et al.'s (2016) recommendation, the Heterotrait-Monotrait (HTMT) strict criteria were utilized for measurement. The outcomes of the discriminant validity assessment are presented in the provided Table 3. These results indicate that the constructs in this study exhibit minimal multicollinearity concerns, as evidenced by values below 0.90.

Table 3
The HTMT Stringent Criterion

	EE	FC	INT	PER	SI
EE					
FC	0.897				
INT	0.858	0.841			
PER	0.887	0.851	0.852		
SI	0.891	0.865	0.867	0.898	

 (HTMT established at HTMT.90)

Note: PER: Performance Expectancy; EE: Effort Expectancy; SI: Social Influence; FC: Facilitating Control; INT: Intention to use

Path Coefficient

Path coefficient analysis enables the assessment and quantification of the influence of independent variables on the dependent variable by measuring their direct impact (represented by the beta value). Additionally, this study gauges the statistically significant effect by computing the t-value between the independent and dependent factors. In line with Hair et al.'s (2016) guideline, a one-tailed hypothesis requires a t-value greater than 1.645 and a p-value not exceeding 0.05 to establish statistical significance. The outcomes of hypothesis testing and path coefficient analysis for this study are showcased in the provided Table 4.

Table 4
The Path Coefficient Result

Relationship	Hypothesis	Direct Effect (β)	T-Statistic	P-Value	Significant
PER > INT	H1	0.009	1.160	0.123	No
EE > INT	H2	0.047	0.501	0.308	No
SI > INT	H3	0.257	2.513	0.006	Yes
FC > INT	H4	0.485	4.325	0.000	Yes

Note: PER: Performance Expectancy; EE: Effort Expectancy; SI: Social Influence; FC: Facilitating Control; INT: Intention to use

As depicted in the table, the connection between social influence and facilitating control in relation to the intention to use parental control software is statistically significant. This is evident from the T-Statistic and P-Value values for hypotheses 3 (t-value: 2.513; p-value=0.006) and 4 (t-value= 4.325; p-value= 0.000), both of which exceed 1.645 and fall below 0.05. However, the T-Statistic and P-Value values for hypotheses 1 (t-value= 1.160; p-value= 0.123) and 2 (t-value= 0.501; p-value= 0.308) are below 1.645 and above 0.05, respectively. As a result, the hypotheses concerning the significance of performance

expectancy and effort expectancy in relation to the intention to use parental control software are not supported by the data.

DISCUSSION AND IMPLICATIONS

The primary objective of the study was to investigate the relationship between performance expectancy and the intention to use parental control software among Malaysian parents. According to existing theories, there is a linkage between an individual's intention to use parental control software and their perception of its performance expectancy. However, the study's findings indicate that although there is a positive correlation, it is not statistically significant (β= 0.009; t-Value= 1.160; p-Value= 0.123). As a result, the initial hypothesis proposed in this study is rejected. This outcome is in contrast to previous research that suggested a higher acceptance of specific information system software tools due to their ability to enhance convenience and directly improve performance in particular tasks (Al-Rahmi et al., 2021; Berdik, Otoum, Schmidt, Porter, & Jararweh, 2021). Nevertheless, some earlier studies argue that performance expectancy might not be a strong determinant of the intention to use certain information system tools. This could be due to individuals' lack of familiarity or understanding of the tools, or a lack of information about them, leading to a hesitancy to adopt them despite recognizing their benefits (Abd Aziz, Kader, & Ab Halim, 2021). In line with this perspective, it can be posited that Malaysian parents in this study might not be well-informed about the availability and features of parental control software developed in Malaysia. This lack of exposure may contribute to their hesitancy to adopt the software, even though it offers various advantages.

The secondary aim of this study was to explore the association between effort expectancy and the intentions of Malaysian parents to use parental control software. The second hypotheses postulated a connection between effort expectancy and the desire to utilize parental control tools. However, the findings revealed that while there is a positive correlation, it is not statistically significant (β= 0.047; t-Value= 0.50; p-Value= 0.308). Consequently, the second hypothesis formulated in this study is not supported. This outcome contrasts with prior research suggesting that certain information system software tools are more likely to be adopted by individuals due to their user-friendliness and the absence of barriers (Sahak, Fauzi, Darus, & Muhammad, 2019; Sang, Wang, Li, Xi, & Yang, 2023). Nevertheless, previous studies have argued that effort expectancy might not be a decisive factor in triggering the intention to use certain information system tools. This could arise when individuals lack familiarity or understanding of the tools, or when they have insufficient information about them, leading to a reluctance to adopt the tools despite their ease of use (Ramírez-Correa, Grandón, Ramírez-Santana, Arenas-Gaitán, & Rondán-Cataluña, 2023). This perspective may elucidate the reluctance of Malaysian parents in this study to adopt parental control software, even though it is user-friendly, owing to a lack of exposure to the software's features and benefits.

The third objective of this study was to investigate the relationship between social influence and the intention to use parental control software among Malaysian parents. As per the theories proposed by the researchers, the intention to use parental control software is associated with social influence. The findings of this study affirm that social influence indeed has a positive and significant impact on the intention to use parental control software among Malaysian parents. Consequently, the third hypothesis formulated in this study is supported (β= 0.257; t-Value= 2.513; p-Value= 0.000). This finding aligns with prior research that has established a positive and significant correlation between social influence and individuals'

intent to use certain information system tools. The positive perceptions conveyed by third parties, including friends, family members, and social groups, about specific information system tools play a role in influencing individuals' perceptions of those tools (Rachmawati, Bukhori, Majidah, & Hidayatullah, 2020; Tusyanah, Wahyudin, & Khafid, 2021). Therefore, it can be deduced that in this study, Malaysian parents' intention to use parental control software is triggered by the positive perceptions of the software, particularly stemming from their friends. This underscores the significant impact of social influence on the intention to use parental control software.

The final aim of this study was to explore the relationship between facilitating control and the intentions of Malaysian parents to use parental control software. The fourth hypotheses put forth by the researchers proposed a link between facilitating control and the inclination to adopt parental control tools. The study's findings confirm that facilitating control has a positive and significant influence on the intention to use parental control software among Malaysian parents. Consequently, the final hypothesis formulated in this study is supported (β= 0.485; t-Value= 4.325; p-Value= 0.000). This finding aligns with previous research that has established a positive and significant correlation between facilitating control and individuals' intent to use specific information system tools. Facilitating control often pertains to software developers providing comprehensive guidelines or clear tutorial materials to guide individuals in using the system tool effectively (Wut, Ng, Leung, & Lee, 2021). Therefore, it can be inferred that in this study, Malaysian parents' intent to use parental control software is influenced by the availability of substantial resources. These resources include guidelines from parental control software developers and tutorial sessions provided by government agencies like MCMC (Commission). This underscores the significant impact of facilitating control on the intention to use parental control software among Malaysian parents.

LIMITATION OF THE STUDY AND RECOMMENDATION

While this study provides valuable insights into the factors influencing Malaysian parents' intention to use parental control software, several limitations should be acknowledged. Addressing these limitations helps in understanding the potential biases and restrictions that might affect the generalizability and reliability of the findings.

The use of a non-probability convenience sampling method limits the representativeness of the sample. Participants were selected based on availability rather than a systematic sampling approach, which could introduce sampling bias. This method may have overrepresented certain groups, such as parents who are more familiar with technology or who have more access to the internet, while underrepresenting those who lack such access or technological awareness. Consequently, the findings may not fully reflect the perspectives of all Malaysian parents, particularly those from rural or underserved communities.

Although the study included 374 respondents, the demographic composition may not adequately represent the diversity of the broader population of Malaysian parents. For example, the sample included a disproportionate number of female respondents (74.1%), which may skew the results. Gender differences in parenting approaches, attitudes towards technology, or decision-making dynamics could influence the study's outcomes, limiting the ability to generalize findings to male parents.

The reliance on self-reported survey data introduces potential biases, such as social desirability bias, where respondents might over-report socially acceptable behaviors (e.g., expressing more willingness to use parental control software than they actually have). This

could inflate the intention to adopt such tools, especially given the sensitive nature of monitoring children's activities online. Moreover, survey respondents may interpret questions differently, leading to response bias. The use of pre-structured questions can restrict the depth of responses, preventing the capture of nuanced views or concerns parents might have about using parental control software.

Moreover, this study collected data at a single point in time, which limits the ability to understand how parents' intentions and behaviors toward parental control software may change over time. A cross-sectional design provides a snapshot of parental attitudes but does not account for shifts in perceptions that might result from evolving technology, societal attitudes, or changes in a child's development.

Besides, the study was conducted in a Malaysian context, and cultural factors such as parenting styles, societal attitudes towards technology, and educational norms play a significant role in influencing the results. The findings might not be applicable or relevant in other cultural or geographical settings where attitudes toward parental control software differ. Furthermore, Malaysian-specific legal frameworks, such as those implemented by the Malaysian Communications and Multimedia Commission (MCMC), also influence the use of such software, further limiting generalizability.

Other that, the study focuses on variables derived from the Unified Theory of Acceptance and Use of Technology (UTAUT) model with performance expectancy, effort expectancy, social influence, and facilitating conditions. However, other important factors such as privacy concerns, parental trust in children, or children's autonomy were not considered. These factors may also influence parents' intentions and decision-making processes, potentially affecting the comprehensiveness of the study's conclusions.

Thus, future studies could address these limitations by employing more representative sampling methods, such as random sampling or stratified sampling, to ensure that the sample better reflects the broader population of Malaysian parents. Longitudinal research could provide insights into how intentions and behaviors evolve over time, while also accounting for changes in the technology landscape. Additionally, future research could explore other influencing factors like privacy concerns and the role of children's autonomy to provide a more holistic view of parental decision-making regarding parental control software.

CONCLUSION

Parental control software offers a feature that enables parents to selectively allow applications on their children's online devices. It also allows them to monitor content and device usage, particularly for educational purposes. In Malaysia, the Malaysian Communications and Multimedia Commission (MCMC) has made concerted efforts to introduce internet monitoring software since 2014, aimed at helping parents oversee their children's online activities. This reflects MCMC's recognition of the advantages offered by parental control software, enabling parents to enhance safety and engage in educational monitoring, especially during instances like the shift to online learning due to Movement Control Order (MCO) restrictions. However, despite these efforts, Malaysian parents still exhibit limited inclination to utilize parental control software for monitoring their children's device activities, particularly in educational contexts. Hence, this study aimed to identify the primary factors influencing the intention to use parental control software. In line with contemporary trends, parental control software holds the potential to significantly facilitate parental monitoring of children's device usage,

particularly for educational purposes. The researcher believes that this study's insights can provide valuable guidance for government agencies and parental control software developers, both in the present and future endeavours.

The conceptual framework employed in this study shed light on the fundamental drivers of intention to use parental control software, incorporating the factors of performance expectancy, effort expectancy, social influence, and facilitating control. It revealed that among these factors, social influence and facilitating control play pivotal roles in positively influencing the intention to use parental control software. The exploration of additional demographic data about parents and the use of specific parental control software could offer avenues for future studies. It's noteworthy that parental control software providers have acknowledged the significance of social influence and facilitating control in driving the intention to use their products.

The findings of this study provide valuable insights for various stakeholders involved in the development, promotion, and usage of parental control software. To maximize the impact of these insights, detailed recommendations for policymakers, software developers, and parents are outlined below.

For policymakers' insights, the study highlights limited awareness and understanding of parental control software among Malaysian parents, particularly regarding its educational benefits. Policymakers should initiate public awareness campaigns to educate parents about these tools' advantages, specifically targeting underserved or less technologically-savvy communities. Besides, to encourage widespread adoption, governments could explore offering subsidies or tax incentives for purchasing and implementing parental control software, particularly for lower-income families. This would address facilitating conditions and increase access. Moreover, policymakers can collaborations with Educational Institutions due to Policies encouraging partnerships between schools and software developers to integrate parental control tools into educational ecosystems could foster a more structured use of technology for learning.

For software developers' insights, the findings indicate that effort expectancy, while not a significant factor in the study, still plays a role in influencing adoption. Developers should focus on creating more intuitive, easy-to-use interfaces to reduce friction for non-tech-savvy users. Simplified guides and tutorials can help parents maximize the potential of these tools. As performance expectancy did not emerge as a strong predictor in this study, developers should highlight the educational advantages of parental control software in their marketing and product features. This could include adding built-in features that facilitate monitoring for educational purposes, such as tracking learning progress or creating learning-friendly environments. Moreover, social influence significantly impacts parents' intention to adopt such software. Developers should leverage social networks, encouraging user communities where parents can share success stories, tips, and best practices for using the software effectively.

For parents' insights, parents should be encouraged to go beyond basic monitoring and restrictions by engaging with their children about the importance of online safety and digital citizenship. The study shows that parents' reluctance may stem from a lack of familiarity with these tools, which can be overcome by becoming more informed about their benefits. Moreover, parents can be advised to customize software settings based on their children's age

and educational needs, making digital learning a priority while ensuring safety. Since social influence was a major factor, parents should also share their experiences with other parents to build a collective understanding of the importance of digital safety and educational engagement through technology.

In conclusion, this research has not only enlightened parents about the potential benefits of parental control software but also provided insights into its effective implementation.

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