

Artificial intelligence Attributes & socio psychological factors Influencing the usage of chatbot in Sri Lankan Systemically important banks

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ABSTRACT

The research investigates the impact of artificial intelligence attributes (Perceived anthropomorphism, perceived intelligence, perceived animacy) and socio-psychological factors (perceived emotional awareness of chatbot and perceived social presence) on the usage of chatbots in Systemically important banks in Sri Lanka. In the positivism realm, deductive approach was followed using survey strategy and a mono-method to collect cross sectional data to investigate perceived anthropomorphism (PAT), perceived intelligence (PI), perceived animacy (PA), perceived emotional awareness of chatbot (PEA), and perceived social presence (PSP) were investigated as factors of usage of chatbots. The data was analyzed through SPSS. The findings revealed that perceived anthropomorphism, perceived intelligence, perceived emotional awareness, and perceived social presence predicted the usage of chatbots significantly and positively, while perceived animacy was non-significant. The results help banks develop chatbots that are highly intelligent and anthropomorphic, with emotional awareness and social presence to improve client happiness and adoption rates. Since perceived animacy was non-significant, banks may focus on emotional and functional components rather than realistic animations to boost the efficacy of digital services. This study uses the Computers Are Social Actors (CASA), Theory of Mind (TOM), and Social Presence Theory (SPT) as core theories and uses the TAM, UTAUT models as foundations for our research. In updating human-computer interaction models in banking settings, this study goes beyond the SPT, TOM, and CASA theories by showing that perceived and socioemotional factors, rather than animacy, which is not a crucial factor, form the basis of usage of chatbots.

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1. Introduction

In recent years, AI technology has become a new global trend. The use of AI technology, especially in the banking and finance sector, has brought many new benefits. Chatbots are one of the applications of AI technology. The global AI banking market was valued at US\$20.87 billion in 2023. It is expected to grow to US\$310.79 billion by 2033 (Ma et al., 2025). AI technology is transforming the banking industry by improving customer service, preventing fraud, and automating banking tasks. According to (Alexandros Argyriou, 2024a), about 63.1% of the global banking system uses chatbots. And fewer than 40% of banks are not employing chatbots. However, global disparity exists, creating a need for future studies on the adoption of banking technology. The Use of chatbots in banking can reduce expenses through efficiency, enhance the delivery speed of services, and provide 24/7 support to assist customers, such as account balances and loan details. Most chatbots are relatively simple, and few banks utilize sophisticated services that can perform advanced financial tasks, thereby enhancing customer satisfaction and loyalty (Alexandros Argyriou, 2024).

The Asia Pacific region is expected to grow at the fastest rate. This growth is driven by high investment in AI as well as consumer demand for faster, smarter, and more secure banking. Industry leaders such as IBM, Microsoft, and Google are helping to innovate the boundaries of this expanding market (Banking & Financial, 2024). In Sri Lanka, systematic important banks include key examples leading institutions such as the State Bank B, Commercial Bank, and State Bank A, which have introduced AI-powered chatbot technologies such as People's Wiz, Miss CommBank, and BOC Smart Assist, respectively (CBSL, 2025). These systems are designed to facilitate tasks such as handling routine banking queries, providing 24/7 support, Natural language understanding, including transaction assistance, and launching on social media (CBSL, 2025).

State Bank B of Sri Lanka has launched an artificial intelligence (AI)-powered chatbot on its website that provides answers in all languages - English, Sinhala, and Tamil. State Bank B has designed it to

provide natural language understanding (NLU) as part of its digital transformation strategy. It has also taken steps to launch chatbots through social media such as Messenger and WhatsApp (Peoples Bank, 2023). Commercial Bank has introduced banking services through WhatsApp. This will help increase the use of chatbot technology in Sri Lankan banks and offer customers easy access to banking services such as checking bank balances, ordering cheque books, and opening new accounts (Commercial Bank | WhatsApp Banking, n.d.). This makes it clear that banks are often working to increase chatbot usage. However, to investigate the effectiveness of their investments, it is also important to examine how AI-related attributes and socio-physiological factors affect chatbot usage (Commercial Bank | WhatsApp Banking, n.d.).

The specific research objectives are to study the impact of AI-specific features and socio-psychological factors on the use of AI-based chatbots in the banking sector. To investigate the relationship between artificial intelligence attributes (Perceived Anthropomorphism, Perceived Intelligence, Perceived Animacy) and the usage of chatbots. Investigate the relationship between socio-physiological factors (Perceived Emotional Awareness of chatbots, Perceived Social presence) and the usage of chatbots.

This study combines variables like AI-related attributes and socio-physiological attributes, providing a more comprehensive understanding of chatbot use in the banking industry in Sri Lanka (Moussawi & Koufaris, 2019). It offers recommendations for improving user satisfaction and digital customer engagement through AI-powered chatbots, highlighting the rapidly expanding human-computer interaction in the Systemically important banks in Sri Lanka. Understanding factors affecting chatbot usage helps narrow the gap between modern banking technology and formal banking, thereby promoting financial inclusion and bridging the digital divide (Moussawi & Koufaris, 2019).

This study examines the determinants of AI-powered chatbot usage in Systemically Important Banks in Sri Lanka (State Bank A, Peoples Bank, Sampath Bank, Hatton National Bank, Commercial Bank). Five independent variables are considered. Perceived anthropomorphism (PAT), perceived

animacy (PA), perceived intelligence (PI), Perceived emotional awareness (PEA), and social presence (SP) of chatbots. It examines how AI-related attributes and socio-psychological constructs influence chatbot service usage. The research relies on Computers Are Social Actors (CASA) and Social Presence Theory, and Theory of Mind. And Unified Theory of Technology Acceptance (UTAUT) Technology Acceptance Model (TAM) are used as a foundation of our research. The target population here includes customers of systemically important banks who interact with chatbots using electronic banking platforms.

The first section presents the background of the study, the statement of the problem, objectives, the significance, scope, and the research questions. The second section reviews literature review. Third section develops conceptual models and hypotheses. The fourth section outlines the methodology, research design, sample collection, and analysis strategies using SPSS. Fifth section is where the findings of the data analysis are presented, including multiple regression model. The sixth section is discussions and findings. And section seven provides a conclusion.

2. Literature Review

Theoretical underpinning

The adoption of AI chatbot technologies in banking has been extensively studied using various socio-psychological and technology acceptance models. This study utilizes Computers as Social Actors (CASA), Theory of Mind (TOM), and Social Presence Theory (SPT) as core theories, with additional models (TAM, UTAUT) for the foundations of our research. Adoption of AI-powered chatbots in banking is influenced by AI-powered features along with social, psychological, and cognitive aspects.

Emotional awareness recognizes the emotional nature of human and computer interaction. This creates the possibility of humanization. Emotional cues from chatbots, such as empathy and socially oriented communication, and experiential satisfaction in customer service interactions. And they used the theory of planned behavior. This model shows that social factors affect individuals' behaviors and decisions (Choudhury & Shamszare,

2023). And warmth and competence are key aspects of evaluating others. This shows the theory of social Presence. Social communication style and warm perception have been shown to have a positive influence on consumers and customer satisfaction, which are important precursors of technological acceptance. Despite mixed results for social well-being, it is an essential element in creating a human-like experience that supports cognitive competence (Al-Oraini, 2025).

Use of Chatbots

Chatbots are now critical instruments used by financial institutions worldwide, especially in developing nations. These technologies are used by banks to reduce wait times and operating expenses by automating customer support tasks (such as loan assistance, financial advising, transaction alerts, personalized banking and balance queries) and the authors point out that chatbots, via text or voice, fulfill a range of important needs of bank customers and that many banks are now using conversational banking as a tool for this (Priya & Sharma, 2023). Also, chatbot helps to enable 24/7 conversational banking by using AI-driven interfaces to manage standard questions so that human agents may concentrate on more complicated problem (Alrawad et al., 2025). Banks have willingly included chatbots into mobile applications to adjust to changing client needs, just as they do in Portugal and, consequently, in comparable digital banking scenarios. Services, including account management, product enquiries, and financial advice, are made easier by these chatbots. The study confirms that clients value outcome-oriented, effective chatbot interactions in banking, and that functional utility (usefulness) is the primary driver of adoption intention (Ramos et al., 2025). How AI-based chatbots are frequently used to support customer service procedures, engage with clients, and offer customized assistance shown by (Jiang et al., 2025). The study showed how using this technology results in increased productivity, better customer satisfaction, and scalable solutions.

Perceived Anthropomorphism (PAT)

Attributing human traits to non-human actors, which to chatbots, is called perceived anthropomorphism. Organizations prefer adding such traits by naming them, avatars, and using human-like dialogue, emoticons, and speech patterns to enhance user interaction and perception,

especially for bank services. Based on the CASA (Computers as Social Actors) model, users respond to human-like computers based on social norms, even though they are aware they are artificial (Priya & Sharma, 2023). Although early research in anthropomorphism was centered around robots, contemporary research indicates that users also anthropomorphize text-based chatbots based on interaction style and conversational tone (Laban, 2021). The incorporation of these traits facilitates emotional attachment, resistance deflection, and trust in AI-driven customer service (Jiang et al., 2025). Human-like design cues (visual appearance, tone, and gender) are found to improve perceived social presence and user satisfaction (Dinh & Park, 2023). Such anthropomorphic cues, especially when used together with socially focused language, evoke feelings of empathy and personalization (Rub Nawaz et al., 2024). But their effectiveness is contingent on context and user expectations, suggesting the need for thoughtfully balanced and contemplative chatbot design (Janson, 2023).

H1: There is a significant relationship between Perceived Anthropomorphism & usage of chatbots.

Perceived Animacy (PA)

Perceived animacy refers to the degree to which users perceive chatbots to be life-like or affective. A chatbot may imitate human characteristics, which are typically deduced from speech rather than actual appearance. Chatbots employ text and sound factors, including tone, expressiveness, and dialogue style to create the illusion of "aliveness." This contrasts with robots that use facial expressions and movement to communicate animacy (Laban, 2021). As users sense their chatbot is acting purposefully and responsively, it is more engaging and elicits positive emotional states. Referring to Piaget's theory, animacy is "movement on one's own," which in chatbots is executed by simulated interactivity and language-mediated communication (Jin & Youn, 2023). Perceived animacy can be enhanced by designers incorporating AI-related and meaningful social aspects such as personalized greetings, emotional tone, and empathetic feedback.

This enhances the users' sense of connection and builds trust in computerized service interactions. Lastly, perceived animacy plays a critical role in user experience design since it sparks more

humane interaction behavior, especially in sectors like banking where emotional comfort and relationship quality are significant (Laban, 2021).

H2: There is a significant relationship between Perceived Animacy & usage of chatbots.

Perceived Intelligence (PI)

Perceived intelligence refers to the measure of how competent, knowledgeable, and sensible users find the chatbot to be. It involves the capability of the system to understand natural language, provide valid and relevant responses, and accomplish things well. Perceived intelligence is understood to be an internal identity of any AI-based system and is an essential requirement for user trust and acceptance. It includes objective intelligence, actual problem-solving ability, and subjective intelligence, the capacity to respond to emotions, understand people, and adapt interactions.

The perception that chatbots are smarter significantly influences users' utilitarian beliefs and raises their purpose in using the technology, particularly for users who prefer human-like interaction (Ma et al., 2025). To achieve acceptance in financial services, chatbots must be viewed as capable of generating accurate and reliable information, and thus developers must enhance their cognitive responsiveness and natural language understanding (Ma et al., 2025). According to Piaget's cognitive theory, cognitive intelligence in AI is its capacity to learn and to reason (Jin & Youn, 2023). Moreover, chatbot design attributes such as emotional message signals and anthropomorphic cues are positively affecting the level of intelligent users' expectation from the system (Cai et al., 2022). Hence, perceived intelligence has a significant impact on shaping users' expectations and trust in AI systems.

H3: There is a significant relationship between Perceived Intelligence & usage of chatbots.

Perceived Social Presence (PSP)

Perceived Social presence refers to how much the users sense human-like presence or affective connection while communicating with chatbot. Perceived social presence refers to a feeling of "being with someone" in a virtual setting and a sense that the system is responsive, personal, and social (Alrawad et al., 2025; Mozafari et al., 2021). Drawing from Computers Are Social Actors

(CASA) theory and Short et al.'s pioneering work (1976), perceived social presence explains how people react to AI systems based on social norms when the latter are seen as having human-like attributes like warmth, empathy, and responsiveness (Priya & Sharma, 2023). Chatbots that enhance perceived social presence through language, personality, and interactivity create the impression that the user is communicating with a real perceived social presence and not a machine (Jin & Youn, 2023). Such affective connection positively influences utilitarian attitudes making users view chatbot as helpful and trustable instruments, particularly in the financial industry (Alrawad et al., 2025). Increased perceived social presence facilitates more customer satisfaction as well as less impersonality in online interaction. It also serves as a major predictor of the adoption and use of chatbots, especially where there is no human representative present. Designers are encouraged to enhance social cues for the sake of users' increased engagement and acceptance (Priya & Sharma, 2023).

H4: There is a significant relationship between Perceived Social Presence & the usage of chatbots.

Perceived Emotional awareness of chatbot (PEA)

Perceived emotional awareness is a characteristic of an AI system's ability to detect, interpret, and respond to human emotions in interactions. It assists chatbot in detecting emotional signals, such as tone or facial expression, and respond with empathy, enhancing the quality of user experience (Jiang et al., 2025). Chatbots with emotional intelligence can determine a customer's emotional state (such as satisfaction or anger) and respond with more individualized and perceptive responses. More customer satisfaction, trust, and enduring loyalty result from this, especially in emotionally charged industries like banking (Jiang et al., 2025). The theory builds upon the broader concept of emotional intelligence, with the components of self-awareness, self-management, social awareness, and relationship management (Mosleh et al., 2024). These allow AI systems not only to detect user emotions but also to build meaningful and caring interactions. The paper additionally emphasizes how important emotional awareness is to moving beyond regular customer service processes and into more compassionate and

understanding interactions. Furthermore, students and other customers may benefit from emotionally secure environments made possible by AI chatbots in terms of enhancing communication abilities, self-awareness, and emotion regulation (Mosleh et al., 2024). Lastly, the key to developing AI systems that are both practical and emotional, that give the user a sense of being heard, appreciated, and cared for, is emotional intelligence.

H5: There is a significant relationship between perceived emotional awareness of chatbots & usage of chatbots.

Research Gap

One of the most significant gaps is to study how crucial factors of chatbots such as perceived anthropomorphism (human similarity of chatbots with behavior), perceived intelligence, perceived animacy (perception of "aliveness" and charm that chatbots have) perceived emotional awareness of chatbot, perceived social presence, affect users' adoption intentions for in Sri Lankan banking. Past research has shown that a universal context and not specifically within the banking industry (Alrawad et al., 2025). Furthermore, the influence of emotional awareness on chatbots has yet to be fully explored in most prior research. Emotional awareness is particularly important in banking, where chatbots can detect and respond appropriately to such delicate financial matters as users' feelings and emotions. However, this aspect has been explored at least as an independent factor in existing work. Therefore, it is worth studying emotional awareness and its direct and indirect effects on chatbot usage in addition, even though perceived social presence (the sense of "someone there" in the interaction process) has been shown to stimulate user participation. Its effect on Sri Lankan banking customers' attitudes, behaviors, and values towards chatbots has been understudied (Alrawad et al., 2025). The interplay among social presence and actual use in this cultural, competitive, and tech environment has yet to be comprehensively studied, at least to a lesser degree. Conventional theories of technological acceptance, such as TAM and UTAUT, concentrate on features like utility and usability; they do not examine the social and emotional components of chatbot interactions or their human-like characteristics. They do not take into consideration how the use of chatbots is affected by PAT, PI, PEA, and PSP.

Adoption may be significantly impacted by social and emotional responses as chatbots get more human-like. Combining theories such as CASA (Computers as Social Actors), perceived social presence creates a comprehensive framework for the use of chatbots in modern contexts, as a theoretical gap.

All previous studies have focused on models of technological usage in general or consumer adoption of chatbots in total finance and e-commerce scenarios, but not on the specific problem of their use and related factors in Sri Lankan banks. The application of chatbot technologies in the banking sector, especially in developing economies like Sri Lanka, is rising at a rapid rate. The disparities in understanding whether the customers are adopting such advanced technological platforms are hugely prevalent. However, studies mainly focus on the global level and ignore the multi-bank environment of Sri Lanka with low digital literacy despite high mobile penetration in Sri Lanka (Dewmini et al., 2023). But no direct evidence has been found in Sri Lankan banks. Most previous studies on chatbot usage have been conducted in countries such as Western countries, India, or in educational e-commerce settings. Therefore, the ability to generalize findings across different cultural and service environments is limited. Given the unique cultural usage behaviors of Sri Lankan consumers, emotional and human-like interactions with chatbots have yet to be explored. This research addresses this gap by focusing on licensed commercial banks in Sri Lanka, a population that has not been adequately studied.

Relationship between artificial intelligence attributes, socio psychological factors and Usage of chatbots

Empirical evidence is observable in the direct relationship between PAT and UOC. Empirical research shows that people view chatbots as more human-like than websites. A regression study indicates that because chatbots are human-like, people will use them. Importantly, demographic factors such as gender and age had limited effects on these impressions, but this highlights the immediate impact of anthropomorphic design on chatbot adoption and acceptability (Laban, 2021). Empirical studies have shown a direct relationship between PA and the UOC. The study finds that the

PA model has a statistically significant impact on UOC. Individuals are more likely to engage with chatbots that exhibit human-like behavior indicators, such as responsiveness or expressiveness (Laban, 2021). Enhancing the animating capabilities of chatbots, such as interaction, natural speech, emotional expressions, and personalization, can improve user perception and boost usage in customer service and financial contexts.

There is a direct relationship between PI and the UOC. It tested whether this assumption would have an immediate effect on their use. The results showed that the PEA model was not statistically significant. The regression coefficient for chatbot adoption was positive but insignificant and reflected a different and doubtful direct relationship between PEA and UOC (Laban, 2021). PEA and the ability to recognize, manage, and respond to emotions have been directly associated with students' UOC in previous studies (Mosleh et al., 2024). A significant positive correlation was found between PEA and the UOC. Because chatbots are more emotionally sensitive, they are better able to learn support and stress management. Because they are better capable of handling digital communication, understanding emotional messages, and having pleasant interactions, all of which are highly beneficial for learning and stress management, students who are more emotionally sensitive are more likely to be drawn to AI technology. There is a direct relationship between PEA and UOC. PEA shows the need to enhance emotional capabilities to increase students' acceptance and use of learning platforms such as AI-based chatbots (Mosleh et al., 2024).

Conceptualization and theory development

The spread of AI in Sri Lanka has created a diverse user base motivated by national social norms, perceptions, emotional intelligence, and trust levels. This study is grounded in three core theories like Computers as Social Actors (CASA), Theory of Mind (TOM), and Social Presence Theory (SPT). These frameworks provide a comprehensive lens for understanding how users perceive and interact with chatbots, particularly focusing on the social, emotional, and perceived dynamics that influence engagement, trust, and satisfaction. While models such as the Technology

Acceptance Model (TAM) and the Unified Theory of Acceptance and Use of Technology (UTAUT) have contributed to broader discussions of technology adoption, they are not the primary theoretical foundation for this research. Their role is limited to providing contextual background when needed. The focus here is on how social and perceived theories best explain the emergence of trust, empathy, and user satisfaction in interactions with chatbots.

Computers as Social Actors (CASA) theory is that if computer systems express human-like characteristics, then they will automatically attract social reactions from humans towards computers. In AI chatbots, based on the theory, users perceive computer systems as being socially present and also as being in communication with another person. Politeness, empathy, friendliness of tone, and use of humor by chatbots cause users to react socially despite communicating with a machine. This social presence increases emotional convenience and quality of service, leading to increased trust in technology. If chatbots appear friendly, responsive, and knowledgeable, they will be more trusted by the users and utilized by them (Priya & Sharma, 2023).

Social Presence Theory (SPT) explains how chatbots can provide social support to users, even without human interaction. It highlights that chatbots can communicate similarly to human conversations, fulfilling social needs in crisis situations. This extends SPT's scope by highlighting the potential of chatbots to provide social presence, especially in times of loneliness or anxiety (Dinh & Park, 2023). Personification and socially-oriented communication style enhances perceived social presence, which in turn increases user trust, empathy, and satisfaction with chatbot conversations. Design choices in chatbots can make online experiences feel more human and emotionally engaging, mediating the influence of design features on trust and empathy. This provides operational recommendations for effective chatbot implementation in customer service contexts (Janson, 2023).

Theory of mind (TOM) is the ability to make inferences about and know other people's thoughts, feelings, and purposes, which is very similar to

emotional awareness. This enables us to see that others possess mental states different from our own. TOM enables us to make inferences regarding what individuals will do in terms of their private thoughts or feelings and provides a foundation for explaining, anticipating, and reacting to other people's actions. This link is stressed as being strongest when inferences about individuals' mental state, rather than objects or true information, are necessary. Theory of mind recruits overlapping cognitive processes and may be a domain-specific module of overall social cognition. The development of TOM is essential for empathy because it makes individuals able to discern and respond to others' feelings and perspectives (Belhaouari et al., n.d.-a).

Conceptual Framework

As per the literature review study, the chatbot use influences have been identified under two broad categories. Artificial intelligence variables are perceived anthropomorphism, perceived animacy, and perceived intelligence, while socio psychological variables include perceived social presence, perceived emotional awareness of chatbots. On the basis of them, a conceptual model has been used to study the chatbot use influences in banks.

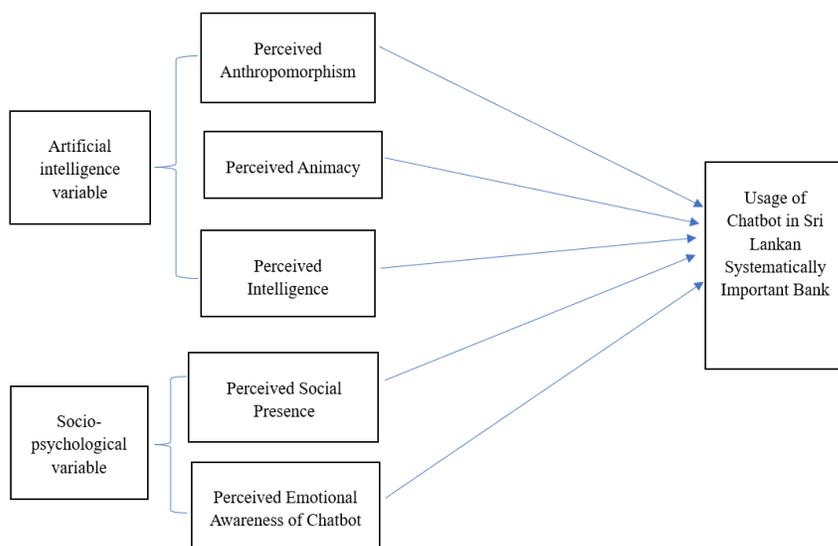


Figure 1: Conceptual Framework

3. Methodology

3.1. Data and Sample

Systemically important banks in Sri Lanka have been depending more on AI powered chatbots in recent years, which is indicative of a global trend toward financial services automation. The study uses a quantitative approach to gather and analyze data, aiming to provide practical insights for banking scholars and professionals seeking to apply chatbot technologies to enhance customer engagement and service provision.

The study employs a positivist philosophy to measure reality objectively and test hypotheses, derived from theories like TAM and UTAUT (Priya & Sharma, 2023). With an emphasis on individual bank customers' experience, this study explores the employment of chatbot technology in Systemically important banks in Sri Lanka. Since the usage of chatbot services is linked to user experience, this study aims to explore how individual-level perceptions impact the usage of chatbot services (Alrawad et al., 2025). Validity, reliability, and generalizability to real banking contexts are enhanced by clearly defining the unit and level of analysis. The usage of chatbot technology by the Sri Lankan Systemically important banks, State Bank A, Commercial State Bank A, State Bank B, Hatton National Bank, and Sampath Bank PLC, is the main subject of this

study (CBSL, 2025a). State Bank A 16.2 million (BOC Bank, 2024), Commercial Bank 4 million (HATTON NATIONAL BANK PLC, 2024), Hatton National Bank 2.7 million (HATTON NATIONAL BANK PLC, 2024), State Bank B 15.1 million (State Bank B, 2024), and Sampath Bank 3.6 million (Sampath Bank PLC, 2024), are the total number of customers of these banks as of 2024. These banks have implemented chatbot technologies extensively to enhance customer service and are significant contributors to the country's financial system.

The sample size was determined using Morgan's criteria (Morgan & Krejcie, 2012) requiring a minimum of 385 responses. The study uses a systematic online questionnaire created with Google Forms for convenience to quantify characteristics such as socio-psychological and artificial intelligence (Balakrishnan & Dwivedi, 2024). A total of 403 respondents were recruited using the snowball sampling method which makes the data appropriate for the study. To gather information about the application of chatbot, this study uses a quantitative research design method. Demographic data, measures of independent variables, and dependent variables are all elicited by the questionnaire. A 5-point Likert scale of statements from 1 ("Strongly Disagree") to 5 ("Strongly Agree") was used to measure each concept. The pilot test process examined the

quality, understanding, and dependability of a questionnaire in a study of 50 respondents from systemically important banks of Sri Lanka that have adopted chatbots. Pilot testing improved the reliability and validity of the study tool, gathering information on user perceptions and faith in technology.

Measures

The main variables included Perceived Anthropomorphism (PAT), Perceived Animacy (PA), Perceived Intelligence (PI), Social Presence (SP), Perceived emotional awareness (PEA) of chatbot and Usage of Chatbot (UOC). All the item measures used are listed in Table 1. Perceived anthropomorphism (PAT) is the attribution of human-like qualities to non-human actors, such as chatbots. PAT was measured using the 5-point Likert scale Perceived animacy (PA) assesses whether the chatbot as the ability of a chatbot to display lifelike behavior. It was measured using the 5-point Likert scale. In terms of perceived intelligence (PI) evaluators consider a chatbot as competent, knowledgeable, empathetic, responsible, and intelligent measured with the 5-point Likert scale (Priya & Sharma, 2023). Social presence (SP) refers to the extent to which a person feels that they are actually present in an interaction, which is the sense of virtual presence and unity with others. It was measured using the 5-point Likert scale developed by (Alrawad et al., 2025). Perceived emotional awareness (PEA) of chatbot is the ability of a chatbot to recognize and respond to human emotions expressed in a conversation. It was measured using the 5-point Likert scale developed by (Jiang et al., 2025). Lastly, usage of chatbot (UOC) is defined the extent to which people have used chatbot technology in making decisions in their fields. adapted from (Choudhury & Shamszare, 2023). using the standardized 5-point Likert scale. The study employed a systematic questionnaire to measure the constructs of interest with standardized 1 to 5 Likert-type items that range from 1 (Strongly Disagree) to 5 (Strongly Agree). The internal consistency of all the scales of measurement was checked through the use of Cronbach's Alpha, and all the constructs had alpha values greater than 0.70, which indicates acceptable to high reliability. These measures were used in an attempt to quantify users' experiences and perceptions concerning chatbot interaction in the banking sector.

The variables included in the analysis are detailed in Table 1 below:

Table 01
Assessment of reliability and validity

Variable	Items Used	Mean	SD	Cronbach α
Perceived Anthropomorphism (PAT)	PAT1 – PAT5	3.70	0.74	0.770
Perceived Animacy (PA)	PA1 - PA5	3.56	0.68	0.772
Perceived Intelligence (PI)	PI1 – PI5	3.63	0.76	0.750
Perceived Social Presence (PSP)	SP1 – SP5	3.60	0.74	0.798
Perceived Emotional Awareness (PEA)	PEA1 – PEA3	3.74	0.77	0.719
Usage of Chatbot (UOC)	UOC1 – UOC3	3.60	0.78	0.775

Methods of data analysis

The data collected through the designed questionnaire was processed through descriptive and inferential statistical analysis with the help of SPSS software. Descriptive statistics such as mean, standard deviation, skewness, and kurtosis were computed for verifying the central tendency and distribution of data. Internal measurement consistency was verified through a test of the reliability of constructs through Cronbach's Alpha. Exploratory Factor Analysis (EFA) was then performed to identify the factor structure underlying and to validate construct grouping, using KMO and Bartlett's Test as ancillary evidence. Multiple linear regression analysis was subsequently used to test independent variable effects. Beta coefficients, t-values, and p-values were employed through this analysis to determine the strength and significance of each effect.

Results

The results of factor analysis for Perceived anthropomorphism (PAT), Perceived animacy (PA), perceived intelligence (PI), Social presence (SP), Perceived emotional awareness (PEA) and usage of chatbot (UOC) are shown in Table 1. Table 2 shows descriptive statistics and correlations between the variables.

Table 02
Correlations

	1	2	3	4	5	6
1 PATFinal	1					
2 PAFinal	.751**	1				
3 PIFinal	.738**	.766**	1			
4 PSPFinal	.738**	.726**	.759**	1		
5 PEAFinal	.601**	.640**	.623**	.605**	1	
6 UOCFinal	.681**	.657**	.687**	.701**	.607**	1

Regression analysis is a statistical method used to examine the relationship between single independent variables as well as multiple independent variables. In this study, a regression analysis was conducted to find out the predictive ability of the variables Perceived Anthropomorphism (PAT), Perceived Animosity (PA), Perceived Intelligence (PI), Social Presence (SP), and Perceived Emotional Awareness (PEA) for the outcome variable. Finally, the usage of Chatbot (UOC). The regression model has very good explanatory power, with an R value of 0.770, indicating a very good positive correlation between predictors and chatbot usage. The R² of 0.593 indicates that the model can explain approximately 59.3% of the variance in chatbot usage. The adjusted R² of 0.588 confirms the robustness of the model after adjusting for the number of predictors. The standard error of 0.428 suggests a fairly accurate prediction. It is also clear that the model is statistically significant ($p < 0.001$). The predictors have a significant effect on chatbot usage overall, and the model is reliable. The subsequent results are summarized in Table 3.

Harman’s Single-Factor Test

Total Variance Explained			
Component	Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %
1	10.838	41.686	41.686
2	1.159	4.457	46.143

Extraction Method: Principal Component Analysis.

Harmon's single-factor exploratory factor analysis (EFA) was used to look into common method bias. The results showed that there was no common technique in the dataset since one factor explained a very small portion of the total variance—below the 50% threshold. Furthermore, 4.457% of the

variance was explained by a second factor, indicating that variance is distributed across several constructs. As a result, there are no notable common method variance problems in the data, confirming validity and reliability. To check that observed variables accurately reflect their latent constructs and that cross-loadings are within acceptable bounds, exploratory factor analysis using PCA extraction and Oblimin rotation was carried out after the Kaiser-Mayer-Olkin and Bartlett tests for sample adequacy.

Average variance extracted

Code	Variable	Average Variance Extracted	No of Items
PAT	Perceived Anthropomorphism	0.524	5
PA	Perceived Animacy	0.521	5
PI	Perceived Intelligence	0.501	5
PEA	Perceived Emotional Awareness	0.640	3
PSP	Perceived Social Presence	0.554	5
UOC	Use Of Chatbots	0.689	3
Overall			31

Cronbach's Alpha generally indicates acceptable dependability values greater than 0.7 (Kristiina Holm, 1978). To examine the percentage convergent validity of the constructs utilized in the research model, the average variance extracted (AVE) was computed. The AVE calculates the ratio of the variance attributable to measurement error to the variance explained by the constructs. According to Hair et al. (2014), an AVE value of 0.50 or greater is typically regarded as favourable. Additionally, it shows that over 50% of the variance in the indicators can be explained by the construct. The study's findings demonstrate that every construct has strong convergent validity and surpassed this cutoff.

Cross Loadings

Cross loadings	PA	PAT	PEA	PI	PSP	BIUC
PA1	0.730	0.555	0.458	0.519	0.540	0.507
PA2	0.713	0.540	0.474	0.559	0.508	0.433
PA3	0.746	0.593	0.480	0.574	0.555	0.545
PA4	0.675	0.489	0.459	0.535	0.502	0.390

PA5	0.743	0.525	0.440	0.582	0.521	0.498
PAT1	0.476	0.712	0.384	0.437	0.477	0.479
PAT2	0.563	0.761	0.425	0.563	0.590	0.527
PAT3	0.585	0.716	0.467	0.573	0.564	0.468
PAT4	0.565	0.763	0.401	0.571	0.567	0.539
PAT5	0.530	0.662	0.501	0.523	0.466	0.447
PEA1	0.532	0.504	0.808	0.513	0.518	0.486
PEA2	0.486	0.436	0.800	0.474	0.437	0.477
PEA3	0.515	0.495	0.793	0.509	0.499	0.494
PI1	0.546	0.533	0.474	0.719	0.543	0.503
PI2	0.492	0.431	0.456	0.668	0.481	0.396
PI3	0.531	0.541	0.420	0.699	0.542	0.494
PI4	0.547	0.544	0.457	0.742	0.503	0.485
PI5	0.588	0.549	0.405	0.709	0.615	0.549
PSP1	0.469	0.483	0.391	0.496	0.656	0.422
PSP2	0.575	0.592	0.481	0.564	0.737	0.467
PSP3	0.578	0.550	0.486	0.620	0.774	0.556
PSP4	0.497	0.519	0.422	0.541	0.743	0.533
PSP5	0.582	0.596	0.472	0.600	0.803	0.621
UOC1	0.521	0.542	0.481	0.535	0.549	0.814
UOC2	0.560	0.563	0.485	0.619	0.614	0.835
UOC3	0.569	0.590	0.545	0.562	0.589	0.842

Table 03
Regression Results

Statistic	Value
R	0.770
R ²	0.593
Adjusted R ²	0.588
Standard Error	0.428
Model Significance (p)	< 0.001

Regarding the effect of Chatbots are found to be more human-like in nature. Users are more likely to use chatbots. With a beta coefficient of ($\beta=0.239$, $p = 0.000$), PAT is a significant and statistically significant predictor. Therefore, H1 is supported. This indicates that strengthening human-like elements in chatbot development can have positive effects on user engagement. PA shows a positive correlation here ($\beta = 0.083$, $p = 0.070$),. However, this is not significant. This means that finding a chatbot more “alive” does not always have an impact on its usage. Although participants may respond favorably to the human-like qualities of a chatbot, this indicates that they do not always stimulate its usage behavior. this is not supported H2. PI has been shown to be a strong predictor of chatbot usage ($\beta = 0.197$, $p = 0.000$). Chatbots are more likely to be used by people who believe they have advanced skills, are informative, and competent. Thus, improving information accuracy and response quality has the potential to increase adoption. Therefore, H3 is

supported. SP shows a strong and positive contribution to chatbots ($\beta = 0.180$, $p = 0.002$). Here, the feeling of being socially present or “with” the chatbot promotes a high level of user engagement. Interactive, conversational features reinforce this feeling. supporting H4. PEA is the strongest predictor of the model ($\beta = 0.265$, $p = 0.000$). Here, users are more likely to use chatbots when they are made to feel emotionally sensitive. Emotional sensitivity (e.g., mood, context, or tone recognition) is shown to be central to the motivation for use. this is supported H5. Table 7 summarizes the results of all hypotheses tested.

Table 04
Hypothesis Results

Relationships	Hypothesis	Beta (β)	Significance (p)	Decision
Perceived Anthropomorphism (PAT)	H1	0.239	0.000	Supported
Perceived Animacy (PA)	H2	0.083	0.070	Not Supported
Perceived Intelligence (PI)	H3	0.197	0.000	Supported
Perceived Social Presence (PSP)	H4	0.180	0.002	Supported
Perceived Emotional Awareness (PEA)	H5	0.265	0.000	Supported

Discussion of findings with implications for theory and practice

The findings of the research indicate that, among consumers of Sri Lankan Systemically important banks, the usage of chatbots is highly positively correlated with perceived emotional awareness of chatbot, perceived anthropomorphism, perceived intelligence, and social presence, while perceived animacy had no effect. The findings align with the TAM, UTAUT, and CASA theories and SPT, which state that consumers will use chatbot technology if they believe it to be intelligent, sensitive to emotions, friendly, and human-like. To increase the usage of chatbots, banks should prioritize social interaction skills, emotional intelligence development, and chatbot intelligence building during testing, rather than investing in making chatbots appear animated or lifelike. These findings put banks under pressure to develop chatbots that go beyond script-based interactions

and offer pleasurable, worthwhile, and emotionally sensitive experiences in support of digital transformation initiatives in Sri Lanka, where customers value efficiency, empathy, and human-like service experiences.

The study combines CASA and Social Presence Theory to understand the factors that significantly influence chatbot usage in Sri Lankan banking. CASA suggests that people unconsciously apply social rules to AI and computers, responding positively to features that mimic human traits like empathy, intelligence, and warmth. Social Presence Theory explains that when chatbots create a sense of interpersonal connection through human-like language, understanding, and emotional expression, users feel more trust and satisfaction, which is crucial in a relationship-driven banking culture like Sri Lanka's (Al-Oraini, 2025). The study suggests that banks should prioritize chatbot qualities that enhance social presence, demonstrate emotional intelligence, and project human-like understanding, as these attributes are most valued by Sri Lankan users and best explained by CASA and Social Presence Theory (Ma et al., 2025).

Theoretical contributions of the findings

In the context of developing countries like Sri Lanka, this study makes a significant theoretical contribution to expanding the body of research on the use of AI-based chatbots in banking services. Firstly, the findings provide empirical support for the Unified Theory of Acceptance and Use of Technology (UTAUT) and the Technology Acceptance Model (TAM) by showing that bank customers' intentions to use chatbots are positively impacted by perceived anthropomorphism, social presence, perceived emotional awareness, and perceived intelligence (Ma et al., 2025; Priya & Sharma, 2023). This supports current views that technology adoption decisions are influenced by social perception and user perception ability.

Second, according to the Computers Are Social Actors (CASA) theory, research confirms that consumers use chatbots as social actors when these technologies have human-like characteristics, including emotional sensitivity and social presence (Ma et al., 2025). By testing, confirming that chatbots' emotional sensitivity is just as important

as their intelligence and social presence in influencing usage behavior in the banking industry of an emerging market, the study expands on the CASA theory.

The beta value for perceived animacy (PA) is positive, but its lack of statistical significance suggests that merely making a chatbot seem "alive" doesn't significantly influence user adoption in the banking context. According to CASA theory, users respond more strongly to social cues conveying intelligence, empathy, or human-like understanding. In Sri Lanka, where customers expect warmth, trust, and competence from financial services, a chatbot's perceived animacy is not enough to drive adoption.

Fourth, this study adds a dimension to the literature on AI adoption that is rarely examined empirically in Sri Lankan studies by incorporating sociopsychological factors such as perceived emotional awareness of chatbots and social presence into the technological acceptance model of chatbots in banking (Belhaouari et al., n.d.; Ma et al., 2025). This emphasizes how important it is to take emotional and perceived factors into account when assessing how people in service sectors use technology.

Last, the research's contribution in this regard is the detection of usage of chatbot in Sri Lankan Systemically important banks, that an area with little empirical research. The research enhances the external validity of AI technology adoption models across various economic and cultural contexts by focusing on customer perception in a developing country banking setting.

Implications for Practice

The findings of this study offer banks interested in promoting the usage of chatbots several significant practical implications.

Firstly, the results show that the use of chatbots is significantly positively influenced by perceived emotional awareness of the chatbot, perceived anthropomorphism, perceived intelligence, and social presence. Therefore, banks must prioritize the development of chatbots as not merely clever machines capable of completing transactions efficiently, but also emotionally intelligent, that is,

sensitive and organic in their reactions to consumer concerns. Customers will find the process more relatable and comforting if emotional cues, civility, and conversational flows are incorporated.

Second, this study shows that social presence has a significant impact on chatbot usage. Customers will therefore see chatbots as offering a personalized and interactive experience. To make their chatbots socially acceptable, banks must make use of features like context-based responses, human-like interaction modes, and personalized welcomes.

Third, banks might implement human-like features like friendly language, names, avatars, or conversational comedy to reassure users and foster trust because perceived anthropomorphism has a beneficial effect on usage. It was discovered that perceived animacy had no discernible effect on chatbot use. This suggests that giving a chatbot a lifelike appearance or the appearance of animation has little bearing on the usage of chatbots. Instead of spending a lot of money on layouts that are solely animated or based on characters, banks should focus on improving their functional and emotional capabilities to better serve their clients.

Fourth, banks need to understand customer education and communication methods to feel at ease and trust chatbots. Campaigns to raise awareness about chatbots' capabilities and potential benefits to consumers help to reduce apprehension. Frontline employees should receive training on how to assist clients during their first interactions with chatbots and how to easily explain their purpose so that customers may utilize them with confidence.

Lastly, the results show that each of the factors has a unique impact on chatbot usage. By recognizing that perceived anthropomorphism, social presence, perceived emotional awareness of chatbots, and perceived intelligence have more significant effects, banks can more effectively concentrate their investments on creating chatbots that integrate these elements to give users positive and helpful experiences.

Conclusion

The study looks at the factors that influence Sri Lankan Systemically important bank clients' use of chatbots. The use of chatbots was found to be

positively influenced by perceived emotional awareness of the chatbot, perceived anthropomorphism, social presence, and perceived intelligence. These factors increase user pleasure, trust, and confidence, which encourages users to employ chatbots to meet their banking needs. The study did find, however, that perceived animacy has no significant impact on the usage of chatbots. This indicates that the feeling that a chatbot is "alive" or animated does not always have an impact on consumer adoption in the banking setting. Customers now place greater emphasis on relational and functional qualities, including intelligence, emotional intelligence, and the capacity to build deep social connections. According to the report, Sri Lankan banks should spend money creating highly intelligent, emotionally aware, and socially active chatbots that resemble people to increase the efficiency of their online banking services and satisfy changing consumer needs.

Limitations

The study focused only on limited banks in Sri Lanka and did not focus on other countries. Sampath Bank, Commercial Bank, State Bank A, Hatton National Bank, and State Bank B were the Sri Lankan Systemically important banks. The study employed a snowball sampling approach, which chose participants based on their willingness and the simplicity of access. And another limitation is considering only artificial intelligence factors (perceived anthropomorphism (PAT), perceived animacy (PA), perceived intelligence (PI), and sociopsychological factors (perceived emotional awareness of chatbot (PEA), perceived social presence (PSP) in the model

Areas for future research

Although this study makes significant contributions, it also creates opportunities for more research. First, for better generalizability, increase the sample size to include clients of non-Systemically important banks or other financial institutions. Second, use longitudinal study designs to look at how customers' attitudes and usage patterns change over time as they interact with chatbots repeatedly. Third, introduce mediator and moderator variables into the analysis to provide further insights into indirect effects and conditional relationships. Fourth, explore qualitative approaches (in-depth interviews) to gain a deeper

understanding of user experience, expectations, and barriers to adopting chatbot technologies. Finally, use the effect of demographic factors, such as age, education level, and e-literacy, on the usage of chatbots

References

Abdul, S., Bukhari, R., & Ali, M. (n.d.). *Sample Size Determination Using Krejcie and Morgan Table*.

<https://doi.org/10.13140/RG.2.2.11445.19687>

Alexandros Argyriou. (2024, November 19). *What's the Current State of Chatbots in Mobile Banking?*

<https://thefinancialbrand.com/news/artificial-intelligence-banking/chatting-things-through-the-current-state-of-chatbots-in-mobile-banking-182950>

Al-Oraini, B. S. (2025). Chatbot dynamics: trust, social presence and customer satisfaction in AI-driven services. *Journal of Innovative Digital Transformation*. <https://doi.org/10.1108/JIDT-08-2024-0022>

Alrawad, M., Attieh, L., Ibrahim, B., & Ramadan, M. (2025a). Bridging AI and human interaction: How trust and social presence affects chatbot acceptance. *International Journal of Innovative Research and Scientific Studies*, 8(2), 385–397. <https://doi.org/10.53894/ijriss.v8i2.5168>

Arshard, A. R. M., & Imthiyas, M. S. M. (n.d.). *THE IMPACT OF ARTIFICIAL INTELLIGENCE CHATBOTS ON CUSTOMER SATISFACTION AND RETENTION IN DIGITAL BANKING SECTORS IN SRI LANKA*. <https://doi.org/10.5281/zenodo.11190189>

Balakrishnan, J., & Dwivedi, Y. K. (2024). Conversational commerce: entering the next stage of AI-powered digital assistants. *Annals of Operations Research*, 333(2–3), 653–687. <https://doi.org/10.1007/s10479-021-04049-5>

Banking & Financial. (2024, June). *Global AI In Banking Market Size, Analysis Forecast 2033*. <https://www.sphericalinsights.com/reports/ai-in-banking-market>

Belhaouari, S., Panayiotou, G., Burkhardt, G., Herpertz, J., Dieris-Hirche, J., Jjb, A., Taylor, J., B Allen, J. J., Herpertz, S., Opel, N., Richter, M.,

Subic-Wrana, C., Lane, R. D., & Dunlap, D. A. (n.d.). *OPEN ACCESS EDITED BY Development and validation of a computer program for measuring emotional awareness in German-The geLEAS (German electronic Levels of Emotional Awareness Scale)*. www.socisurvey.de].

BOC Bank. (2024). *boc-annual-report-2024*.

Building the AI bank of the future. (2021).

Cai, D., Li, H., & Law, R. (2022). Anthropomorphism and OTA chatbot adoption: a mixed methods study. *Journal of Travel and Tourism Marketing*, 39(2), 228–255. <https://doi.org/10.1080/10548408.2022.2061672>

CBSL. (2025). *CENTRAL BANK OF SRI LANKA BANKING ACT DIRECTIONS*. https://www.cbsl.gov.lk/sites/default/files/cbslweb_documents/laws/cdg/bsd_circular_no_2_of_2025_e.pdf

Choudhury, A., & Shamszare, H. (2023a). Investigating the Impact of User Trust on the Adoption and Use of ChatGPT: Survey Analysis. *Journal of Medical Internet Research*, 25. <https://doi.org/10.2196/47184>

Commercial Bank / WhatsApp Banking. (n.d.). Retrieved July 19, 2025, from <https://www.combank.lk/services/whatsapp-banking>

Commercial State Bank A PLC. (2024). *Commercial State Bank A PLC Annual Report 2024*.

Dewmini, E. A. T., Wijekumara, J. M. N., & Sugathadasa, D. D. K. (2023). Digital Financial Literacy on Financial Behaviour Among Management Undergraduates of State Universities in Sri Lanka. *Journal of Management Matters*, 10(2), 73–89. <https://doi.org/10.4038/jmm.v10i2.56>

Dinh, C. M., & Park, S. (Steven). (2023). How to increase consumer intention to use Chatbots? An empirical analysis of hedonic and utilitarian motivations on social presence and the moderating effects of fear across generations. *Electronic Commerce Research*. <https://doi.org/10.1007/s10660-022-09662-5>

Dorota Jasińska, & Andrzej Puczyk. (n.d.). *Best Chatbots in Banking To Transform Banking*

Services. Retrieved July 19, 2025, from <https://neontri.com/blog/best-banking-chatbots/>

HATTON NATIONAL BANK PLC. (2024). *HATTON NATIONAL BANK PLC Annual Report 2024*.

Janson, A. (2023). How to leverage anthropomorphism for chatbot service interfaces: The interplay of communication style and personification. *Computers in Human Behavior*, 149. <https://doi.org/10.1016/j.chb.2023.107954>

Jiang, Y., Wang, K., & Wang, C. (2025a). Exploring the Impact of Emotional Awareness, Anthropomorphism, Technology Trust and Familiarity on Adoption of AI-Enabled Customer Service. In *J. asi. soc.sci. res* (Issue 1). www.shiharr.com

Jin, S. V., & Youn, S. (2023). Social Presence and Imagery Processing as Predictors of Chatbot Continuance Intention in Human-AI-Interaction. *International Journal of Human-Computer Interaction*, 39(9), 1874–1886. <https://doi.org/10.1080/10447318.2022.2129277>

Laban, G. (2021). Perceptions of anthropomorphism in a chatbot dialogue: The role of animacy and intelligence. *HAI 2021 - Proceedings of the 9th International User Modeling, Adaptation and Personalization Human-Agent Interaction*, 305–310. <https://doi.org/10.1145/3472307.3484686>

Ma, N., Khynevych, R., Hao, Y., & Wang, Y. (2025a). Effect of anthropomorphism and perceived intelligence in chatbot avatars of visual design on user experience: accounting for perceived empathy and trust. *Frontiers in Computer Science*, 7. <https://doi.org/10.3389/fcomp.2025.1531976>

Mosleh, S. M., Alsaadi, F. A., Alnaqbi, F. K., Alkhzaimi, M. A., Alnaqbi, S. W., & Alsereidi, W. M. (2024). Examining the association between emotional intelligence and chatbot utilization in education: A cross-sectional examination of undergraduate students in the UAE. *Heliyon*, 10(11). <https://doi.org/10.1016/j.heliyon.2024.e31952>

Mozafari, N., Weiger, W. H., & Hammerschmidt, M. (2021). *That's so Embarrassing! When not to Design for Social Presence in Human-Chatbot Inte.*

Asian Finance Review, Vol.2, No.2

State Bank B. (2024). *State Bank B Annual Report 2024*.

State Bank B adds a cutting-edge AI-powered chatbot to its website - Business News | Daily Mirror. (2023, November 20). https://www.dailymirror.lk/business-news/Peoples-Bank-adds-a-cutting-edge-AI-powered-chatbot-to-its-website/273-271600?utm_source=chatgpt.com

Priya, B., & Sharma, V. (2023a). Exploring users' adoption intentions of intelligent virtual assistants in financial services: An anthropomorphic perspectives and socio-psychological perspectives. *Computers in Human Behavior*, 148. <https://doi.org/10.1016/J.CHB.2023.107912>

Ramos, R., Casaca, J., & Patrício, R. (2025). Adoption Drivers of Intelligent Virtual Assistants in Banking: Rethinking the Artificial Intelligence Banker. *Computers*, 14(6), 209. <https://doi.org/10.3390/computers14060209>

Rub Nawaz, R., Reza, S., Sarwar, B., & Balochistan, P. (2024). Chatbot Anthropomorphism and Its Influence on Trust and Satisfaction via Perceived Value. *Journal of Social & Organizational Matters*, 3(2), 543–568. <https://doi.org/10.56976/jsom.v>

Sampath Bank PLC. (2024). *Sampath Bank PLC Annual Report 2024*. <https://www.sampath.lk/investor->

Zhu, Y., Zhang, R. (Renata), Zou, Y., & Jin, D. (2023). Investigating customers' responses to artificial intelligence chatbots in online travel agencies: the moderating role of product familiarity. *Journal of Hospitality and Tourism Technology*, 14(2), 208–224.