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Support for Businesses' Use of Artificial Intelligence: Dynamics of Trust, Distrust, and Perceived Benefits

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Abstract

Current research on AI has extensively examined drivers that predict individuals' attitudes and behavioral intentions toward AI use. Despite this, there is limited research that explores factors that influence consumers' acceptance of AI integration into businesses. As more businesses have integrated AI systems into different aspects of their operations, consumers have experienced increasing interactions with AI systems adopted by businesses. Thus, it is critical to understand not only whether individuals trust and accept the use of AI in their everyday lives, but also whether they trust and accept the use of AI by businesses they interact with. As such, this study tests a theoretical framework developed on the basis of current research on AI and technology acceptance. This study used a survey dataset collected from a nationally representative sample of 420 Australian consumers in 2024. The findings revealed that the interplay between faith in general technology, trust and distrust in businesses' AI use, and perceived AI benefits shaped attitudes and behavioral intentions toward businesses using AI. These dynamics also contributed to the approval of businesses' use of AI. The findings offer theoretical and practical insights on how to manage these dynamics to foster positive attitudes and behavioral intentions toward businesses that use AI.

Keywords

artificial intelligence; consumers; distrust; faith in technology; perceived benefits; trust

1. Introduction

AI is defined as "a technology that enables computers and machines to simulate human learning, comprehension, problem solving, decision making, creativity, and autonomy" (Stryker & Kavlakoglu, 2024,

para. 1). The Commonwealth Scientific and Industrial Research Organisation (CSIRO) has defined AI as "a collection of interrelated technologies to solve problems autonomously and perform tasks to achieve defined objectives, in some cases without explicit guidance from a human being" (Hajkowicz et al., 2019, p. 2). Because AI can be used to complete tasks with minimal or no human intervention, there are concerns about its capabilities, biases, and security risks. As such, current research has identified factors including familiarity (Gerlich, 2023), trust (Jiang et al., 2024), perceived usefulness (Jiang et al., 2024), and perceived risk and threats (Jiang et al., 2024; Sindermann et al., 2022) as significantly influencing attitudes and behavioral intentions toward AI use.

AI has transformed the ways that consumers interact with businesses. First, AI enables businesses to deliver personalized experiences by analyzing large volumes of data (Szleter, 2024). Second, AI enables businesses to provide immediate, around-the-clock customer support with virtual assistants and chatbots (Szleter, 2024). Third, AI enables businesses to gain deeper insights into customer data to improve their products and services (Jobanputra, 2024). These capabilities have optimized operations and have made businesses more efficient by saving time and costs (Haan & Watts, 2023a). Despite this, only 32% of consumers had successfully resolved a customer service issue using AI, and 63% were frustrated with businesses' use of AI for customer support (Hyken, 2024). Consumers were reported to have "fear and frustration" toward their interactions with businesses' AI systems (Hyken, 2024, para. 11).

Despite the prevalence of AI use, it remains a challenge for businesses to understand consumers' attitudes toward AI and to gain consumers' approval for their use of AI in their business operations. Current research on AI acceptance has focused on users' acceptance of AI technologies (Kelly et al., 2023). Yet, there is limited research on consumers' perceptions of businesses that use AI technologies (Oyekunle et al., 2024). When interacting with AI systems adopted by businesses, consumers generally have concerns about privacy and security (Alhitmi et al., 2024) and AI's limited capacity in resolving consumer complaints (Agnihotri et al., 2021). As AI adoption grows in businesses across industries, such as in health, education, and manufacturing ("Exploring AI adoption," 2024), it is critical to understand consumers' concerns and investigate the dynamics of different factors that influence their support for businesses' use of AI.

Amidst the large body of research on AI acceptance, most of the studies have adopted traditional acceptance models such as the technology acceptance model (TAM) and the unified theory of acceptance and use of technology (UTAUT) to uncover drivers for AI acceptance for individuals' own use of AI (Kelly et al., 2023). Hence, there are calls for AI acceptance studies to (a) include trust and attitudes, (b) examine actual use behaviors, (c) examine users' understanding of AI technologies (Kelly et al., 2023), and (d) explore consumers' perceptions of how businesses use them (Frank et al., 2023; Jain et al., 2024). On the last point, Jain et al. (2024) described artificial intelligence consumer behavior (AI CB) as consumer behaviors influenced by the application of AI in consumer interactions and suggested that future research employ theoretical lenses to explore consumers' interpretations, perceptions, and responses to the adoption of AI technologies by businesses.

In response to the research gaps stated above, this study proposes and tests a theoretical framework that explores factors that shape consumers' attitudes and behavioral intentions toward businesses that use AI and their approval of businesses' AI use. Several propositions form the foundation of this framework. First, current research on AI is characterized by two clusters: one on individuals' acceptance of AI and the other on

consumers' behaviors related to AI (Jain et al., 2024; Kelly et al., 2023). In fact, there is a confluence between the two. Many people are open to using AI, but some are skeptical about how businesses use AI, and this can affect how many people actually use AI (Frank et al., 2023). Second, while actual AI use behaviors have been under-researched (Kelly et al., 2023), consumers have pre-existing beliefs and expectations on how businesses use AI (Frank et al., 2023; Jain et al., 2024). As such, consumers' pre-existing propensity and beliefs about general technology and businesses that use a specific technology (i.e., AI) are likely to affect their attitude and behavioral intention toward businesses that use AI. Therefore, reflecting on the need to incorporate trust, distrust, and attitude into AI acceptance research (Kelly et al., 2023), this framework shifts the focus of TAM from understanding consumers' acceptance of a technology to understanding consumers' acceptance and behavioral intention toward businesses' use of AI technology (Davis, 1989). This approach highlights the significance of gaining and cultivating (a) trust in a specific technology (i.e., AI), (b) trust in businesses that use the technology, and (c) trust in how businesses use the technology.

2. Literature Review

At present, there is a handful of research articles that examine AI in the consumption process in relation to acceptance and trust toward specific applications such as chatbots and voice assistants (Jain et al., 2024). However, these studies often yielded mixed results. On the one hand, AI has its novelty and can solve problems beyond human capabilities; on the other hand, there are perceptions of risk (Hasan et al., 2021). Of note, there is still skepticism among consumers about how businesses use AI. Hence, Frank et al. (2023) shifted the focus from examining trust in AI to examining how trust in businesses affects trust in the businesses' AI adoption. They found that when businesses that are trusted give full autonomy for AI to make decisions, trust in the businesses' AI adoption was negatively affected. A confluence of factors is at play in shaping perceptions and acceptance of businesses' use of AI. To explain consumers' acceptance of businesses' use of AI, it is crucial to unpack the dynamics behind consumers' trust and distrust in the businesses' AI use as well as their attitude and behavioral intention toward the businesses that use AI in their operations.

2.1. Faith in General Technology, Trust and Distrust in Businesses' AI Use

Researchers have found that trust is a key factor in how people accept AI. It shows how people feel about AI's dependability, skill, and safety (Bitkina et al., 2020; Choung et al., 2023; Hasija & Esper, 2022; J. Kim et al., 2021). However, there is a difference between trust in AI and trust in businesses that use AI. While consumers experience services delivered by AI technologies, it is businesses that develop, deploy, and manage the technologies (Frank et al., 2023; Gillespie et al., 2023). Trust in AI is characterized as "a social contract of assumptions between humans and machines on how a system or algorithm will perform" (Mylrea & Robinson, 2023, p. 2). According to Frank et al. (2023), trust in companies is when people are willing to put themselves at risk for a trustee (like a company) because they believe the trustee will do something important to the trustors, like providing a service that meets or exceeds their expectations. When evaluating individuals' trust in a technology, four types of trust come into play: trust in people, trust in technology, faith in general technology, and trust in a specific technology (McKnight et al., 2009). First, trust in technology refers to "individuals depending on, or being willing to depend on, the technology to accomplish a specific task" (McKnight et al., 2009, p. 2). While both trust in people and trust in technology have the same contextual conditions (i.e., risk, uncertainty, and lack of total control), one significant difference between them is the lack of moral agency in technology-related trust (McKnight et al., 2009). In other words, trust in

technology relies on the technology's functionality necessary to complete a task (McKnight, 2005) and reliability to consistently operate (McKnight et al., 2002). Second, one's propensity to trust in general technology exists when "one assumes technologies are usually consistent, reliable, functional, and provide the help needed" (McKnight et al., 2009, p. 5), and it implies "one is willing to trust *technology across situations and persons*" (p. 7, emphasis added). And lastly, trust in a specific technology refers to "one's beliefs that the target technology has the capacity (i.e., features) to complete a required task" and indicates individuals' "willingness to depend on a specific technology in uncertain, risky situations" (McKnight et al., 2009, p. 7).

There is currently a "trust gap" or "trust deficit" in companies' adoption of AI, as there are persistent risks associated with businesses' use of AI (Chakravorti, 2024). Again, how businesses use AI technologies and what they use them for is the main cause of the trust gap. Thus, businesses are advised to endorse trust-building initiatives by communicating how AI is used and what it is used for (Frank et al., 2023). Distrust is not equivalent to the absence of trust and is characterized as "the active expectation that the other party will behave in a way that violates one's welfare and security" (Cho, 2006, p. 26). This study adopts Cho's (2006) approach to measure trust and distrust separately. This approach was built on the empirical evidence that distrust often influences behavioral intentions more than trust (Cho, 2006). This study posits that faith in general technology is likely to be positively associated with trust in businesses that use AI while negatively associated with distrust in businesses that use AI, based on McKnight et al.'s (2009) study suggesting that individuals' trust in the attributes of a certain technology can be translated into attitudes and intentions of a specific technology use.

McKnight et al. (2009) conceptualized that a connection exists between faith in general technology and trust in a specific technology. Without users' willingness to depend on technology in general, it would be difficult to build trust in any type of technological advances, including AI technology. Lack of faith in general technology may exacerbate individuals' skepticism and concerns about AI risks. New technologies like AI create anxiety and distrust due to their unpredictability (Edelman, 2019). Considering mixed sentiments and attitudes toward AI (e.g., Gessl et al., 2019), this study posits that individuals with greater faith in technology tend to show higher trust in businesses' AI usage, as a general predisposition to trust technology often translates into trust in specific AI tools (McKnight et al., 2011). Empirical findings reveal that people with high faith in technology report significantly greater trust in AI-driven services (Zarifis & Fu, 2023). The social cognition theory says that people who trust technology might use a "machine heuristic," which means they think that automated systems are objective and accurate (Sundar & Kim, 2019). The trust transfer theory also states that previous positive experiences with a technology create a "reservoir of trust" extendable to new AI solutions (Glikson & Woolley, 2020). Together, these insights justify propositions to test associations between faith in technology and trust in businesses' use of AI. Conversely, this study also proposes that lower faith in technology corresponds to higher distrust of businesses' AI usage. Because faith in technology provides a baseline of trust, it mitigates the "confident negative expectations" that define distrust (Cho, 2006). Research suggests that individuals with low faith in technology demand more assurances before trusting a specific system, whereas those with high faith in technology are less prone to assume bias or harm (Lewicki et al., 1998; McKnight et al., 2011). As a result, they approach AI adoption with fewer suspicions, though not necessarily blindly.

Therefore, the following hypotheses are posited:

H1: Faith in general technology is positively associated with trust in businesses that use AI.

H2: Faith in general technology is negatively associated with distrust in businesses that use AI.

2.2. Perceived Benefits

Current research has identified a host of unique individuals' characteristics as significantly influencing AI acceptance (Kelly et al., 2023). Specifically, perceived benefits (also known as perceived usefulness) are often considered an antecedent that explains other perceptual variables (Choung et al., 2023; Kelly et al., 2023). Perceived benefits are defined as "beliefs about the positive outcomes associated with a behavior in response to a real or perceived threat" (Chandon et al., 2000; Liu et al., 2013). Perceived benefits are equivalent to perceived usefulness, which is defined as "the degree to which a person believes that using a particular system would enhance his or her job performance" (Davis, 1989, p. 320). According to the TAM, perceived usefulness has been consistently found to be strongly significant in predicting usage, indicating that users are driven to adopt a technology because of its functions (Davis, 1989). In the context of AI adoption, perceived usefulness is conceptualized as the degree to which individuals believe that using AI will enhance their performance or provide benefits (Choung et al., 2023). It has been found as a prominent variable in influencing AI acceptance (Choung et al., 2023; Del Giudice et al., 2023; Ismatullaev & Kim, 2024; Kelly et al., 2023). In the context of individuals' use of AI, Gansser and Reich (2021) have identified four dimensions of perceived benefits, namely health, convenience (comfort), sustainability, and performance expectancies (such as increasing productivity). These factors were found to predict behavioral intentions to use products containing AI.

While Bedué and Fritzsche (2022) suggested that trust building is required to increase AI adoption, Choung et al. (2023) found the indirect effect of trust and the effects of perceived usefulness, ease of use, and attitude on intention to use AI. Rossi (2018) argued:

> Trust in the technology should be complemented by trust in those producing the technology. Yet, such trust can only be gained if companies are transparent about their data usage policies and the design choices made while designing and developing new products. (p. 130)

Multiple empirical studies confirm that trust in a business or its AI technology can heighten consumers' perceptions of usefulness, ease of use, and overall benefits. In the context of the TAM, trust can act as an antecedent or moderator that strengthens perceived usefulness and reduces uncertainty. For instance, in AI voice assistants, Choung et al. (2023) found that higher trust in AI positively influences perceived usefulness and attitudes, which in turn boosts adoption intentions. Similarly, Gefen et al. (2003) demonstrated that in e-commerce, consumer trust in an online vendor was as influential as perceived usefulness and ease of use in predicting intended usage. Therefore, if consumers trust those businesses that use AI, they are likely to see the benefits of those companies' products/services that contain AI technologies.

While trust generally amplifies perceived benefits, the converse—distrust—can have the opposite effect. Distrust not only diminishes perceived usefulness but can also heighten perceived risk, causing consumers to focus on potential harm rather than benefits. Current literature indicates that individuals who actively distrust a business's use of AI are more likely to question the technology's performance, suspect hidden motives or data mismanagement, and anticipate negative outcomes (Cho, 2006). For example, in healthcare, low trust in "AI doctors" is associated with heightened risk perceptions and reduced benefit perceptions

(Kerstan et al., 2024). Moreover, a US Gallup survey found that widespread distrust in businesses' responsible use of AI corresponded with minimal belief in AI's net benefits (Price, 2023). Hence, if consumers distrust those businesses' intention behind using AI in their products/services, it is unlikely for them to perceive benefits from using AI-embedded products/services. Therefore, we postulated the following hypotheses:

H3: Trust in businesses that use AI is positively associated with perceived benefits of products containing AI.

H4: Distrust in businesses that use AI is negatively associated with perceived benefits of products containing AI.

In addition, based on the above literature review suggesting the role of trust in general and specific technology, we posit that trust and distrust will be mediating between faith in general technology and perceived benefits of products containing AI:

H5: Trust and distrust mediate between faith in general technology and perceived benefits of products containing AI.

2.3. Attitudes

Current research on technology adoption has found conflicting results about the value of attitudes in predicting adoption intention or adoption (Yang & Yoo, 2004). On the one hand, perceived usefulness was found to be highly significant in influencing usage such that attitudes offer little value in predicting use (Davis et al., 1989). On the other hand, Yang and Yoo (2004) argued that attitude still deserves attention because it is a contagious social function that facilitates influence among people and that cognitive and affective attitudes influence usage differently. They stated: "Attitude is contagious and as people work together, they express their own and listen to each other's attitudes. Therefore, organizations and managers need to care about the positive attitude change" (Yang & Yoo, 2004). According to the TAM, attitude refers to users' assessments of the desirability of using a specific technology, reflecting either positive or negative feelings (Ajzen & Fishbein, 1980).

In the context of AI, individuals' attitudes toward the technology itself have been researched and measured (Grassini, 2023; Stein et al., 2024). But there is a lack of research on attitudes toward businesses that use AI. Unlike individuals' use of AI which could be explained by perceived usefulness (Gursoy et al., 2019), attitudes toward businesses that use AI could be influenced by trust (Frank et al., 2023). Only 28% of people in the US trust businesses that use AI models with customers ("AI has a trust problem," 2024). Therefore, even if one has a positive attitude toward AI use, they could have a negative attitude toward businesses' use of AI as a result of uncertainty about how businesses use AI or what they use it for. Because trust in a new technology is a precursor to acceptance (Dirsehan & Can, 2020), this study posits that trust in how businesses use AI influences consumers' attitudes toward businesses that use AI. Current research has also identified trust as a precursor to attitude toward a business's website (Limbu et al., 2012). A systematic review shows that trust and attitudes are equally important in AI acceptance (Kelly et al., 2023). The following hypothesis will be tested:

H6: Perceived benefits are positively associated with attitudes toward businesses that use AI.

2.4. Behavioral Intentions

In line with current literature on technology adoption based on the theory of reasoned action and the TAM (Kelly et al., 2023), this study will test if one's attitudes toward businesses that use AI predict behavioral intentions toward those businesses (Davis et al., 1989). Behavioral intention measures "the strength of one's intention to perform a specified behavior" (Davis et al., 1989, p. 984). When people have positive feelings toward an action, they are likely to perform the action. The relationship between attitudes and behaviors is mediated by behavioral intentions, but researchers have advised of the importance of ensuring a match in the operationalizations of the attitude and behavioral intention constructs (Jaccard et al., 1977; M.-S. Kim & Hunter, 1993). For example, in the context of businesses' websites, Limbu et al. (2012) tested attitudes toward a business's website and behavioral intentions to purchase from that business's website. Hence, M.-S. Kim and Hunter (1993) noted "the importance of developing proper measures of attitude, intention, and behavior" to examine the factors determining behavioral inclinations (p. 354). Acknowledging this, this study will specifically examine the association between consumers' attitudes toward AI use by businesses and behavioral intentions to support businesses that use AI:

> H7: Attitude toward businesses that use AI is positively associated with behavioral intentions to support businesses that use AI.

While attitudes may play a mediator role between perceived AI benefits for individuals and behavioral intention (Ho et al., 2013; H6 and H7), to fully understand if this is a full mediation or a partial mediation, we also posit the following hypothesis to test:

> H8: Perceived benefits are positively associated with behavioral intention.

2.5. Approval of AI Use by Businesses

Although many benefits of AI have been proposed for both consumers and businesses, consumers have been reported to remain concerned and skeptical about businesses' use of AI. A survey conducted found that consumers were concerned about AI-generated product descriptions, AI-generated product reviews, chatbots answering questions, and AI being used for recommendations and personalized advertising (Haan & Watts, 2023b). On the other hand, other consumers in the survey believed that AI could improve personalized recommendations and advertising (Haan & Watts, 2023b). AI has enormous capabilities, but how and what businesses use it for can affect consumers' perceptions and eventually the overall reputations of the businesses (Enholm et al., 2022). Enholm et al. (2022) suggested that although AI technologies could improve businesses' operational, financial, and market-based sustainability performance, there could be unintended, negative consequences such as generating biased outcomes to benefit the businesses themselves but not their customers, ultimately costing their reputations. Businesses are advised to comprehend the unintended consequences of AI systems and to adopt responsible AI governance frameworks to create enhanced business value (Perifanis & Kitsios, 2023).

While consumers' adoption of AI technologies is a hot topic that has been extensively researched, consumers' interpretations and evaluations of businesses' use of AI require further examination (Jain et al., 2024). Current research has noted that even though consumers show a positive attitude toward AI

marketing communication, they also have a neutral or slightly negative feeling toward it depending on their perceptions of what businesses use AI for (Chen et al., 2022). On the one hand, businesses were found to use AI for positive purposes, such as using it for corporate social responsibility initiatives (Wu et al., 2024) and building relationships with stakeholders (Oh & Ki, 2024). Thus, if AI is used for good causes that benefit both businesses and stakeholders, then the use of AI by businesses is positively perceived. On the other hand, AI has its "dark sides": Consumers have concerns that the benefits of AI come at the expense of privacy (Cheng et al., 2022). For example, personalized recommendations lead to data security concerns (Cheng et al., 2022). As such, how AI is used influences consumers' cognitive and affective attitudes, requiring further investigation into the extent to which consumers are willing to approve businesses' AI use. Therefore, this study posits that individuals with positive attitudes toward products/services containing AI features are likely to approve businesses' use of AI in their operations. This proposition is built on the assumption that consumers' beliefs and attitudes toward the performance of AI-embedded products/ services for oneself are transferrable to their beliefs in the performance of AI for businesses (Bitkina et al., 2020). Current analyses have listed numerous benefits of AI technologies for businesses, including improving customer experience and relationships, increasing productivity and sales, and saving costs (Haan & Watts, 2023a; Weitzman, 2022). Even if there exist positive attitudes toward businesses that use AI, accepting businesses' use of AI based on these benefits may be needed before individuals develop supportive behavioral intentions. Therefore, we postulate the following hypotheses:

H9: Perceived AI benefits for individuals are positively associated with approval of businesses' use of AI.

H10: Attitude toward businesses that use AI is positively associated with approval of businesses' use of AI.

H11: Approval of businesses' use of AI is positively associated with behavioral intention.

H12: Approval of businesses' use of AI mediates the relationship between attitudes and behavioral intention.

3. Methods

3.1. Development of Survey Instruments

To test the hypotheses, an online questionnaire was created based on existing studies. First, the measurement items for "faith in general technology" were adopted from McKnight et al. (2009). Second, the survey items for "perceived benefits for individuals" were adapted from the four dimensions (i.e., influence on health, influence on convenience, influence on sustainability, and performance expectancy) identified in Gansser and Reich's (2021) study on AI acceptance. Third, the survey items for "approval of businesses' use of AI" were developed based on industry articles that analyze the benefits of AI to businesses (Haan & Watts, 2023a; Weitzman, 2022). Fourth, trust and distrust were operationalized based on survey items in Cho's (2006) study on trust and mistrust. Lastly, attitude and behavioral intentions toward businesses that use AI were adapted from Wang et al. (2023). Table 1 shows a list of survey items used.

Table 1. A list of survey items used, Cronbach alpha (*α*), standardized loading, mean (*M*), standard deviation (*SD*), and standard error (*SE*).

Variable	Survey Item	Loading	M	SD	SE
Faith in general technology α = 0.889	I believe that most technologies are effective at what they are posited to do.	0.827	3.86	0.854	0.042
	A large majority of technologies are excellent.	0.843	3.92	0.855	0.042
	Most technologies have features needed for their domains.	0.809	3.84	0.806	0.039
	I think most technologies enable me to do what I need to do.	0.787	3.97	0.080	0.039
Perceived AI benefits for individuals (health α = 0.929	A product that contains AI can increase awareness of my health and well-being.	0.846	3.20	1.123	0.055
	A product that contains AI can provide me with information that helps me make better decisions about my health and well-being.	0.909	3.22	1.119	0.055
	A product that contains AI can give me more control over my health and well-being.	0.879	3.14	1.098	0.054
	A product that contains AI can increase my chances for a healthier lifestyle.	0.869	3.20	1.110	0.054
Perceived AI benefits for individuals (convenience) α = 0.907	It is convenient that products that contain AI automatically control and check themselves.	0.816	3.36	1.076	0.052
	It is convenient that products that contain AI can control electrical devices by a simple operation.	0.795	3.32	1.100	0.054
	It is convenient that products that contain AI can provide access to a lot of information.	0.817	3.60	1.091	0.053
	It is convenient that products that contain AI can help me proactively and without human intervention.	0.831	3.33	1.153	0.056
	It is convenient that products that contain AI can help me make better decisions.	0.808	3.37	1.101	0.054
Perceived AI benefits for individuals (sustainability) α = 0.913	People can use products with AI to manage waste better.	0.820	3.31	1.052	0.051
	People can use products with AI to save resources.	0.916	3.48	1.062	0.052
	People can use products with AI to achieve cost savings.	0.872	3.52	1.064	0.052
	People can use products with AI to know exactly how much resources they consume (time, money, etc.).	0.793	3.54	1.060	0.052
Perceived AI benefits for individuals (performance expectancy) α = 0.913	Products with AI can help people get things done more quickly.	0.829	3.67	1.042	0.051
	Products with AI can increase people's productivity.	0.873	3.62	1.040	0.051
	Products with AI can increase people's chances of achieving things that are important.	0.867	3.46	1.057	0.052
	Products with AI are useful in everyday life.	0.823	3.59	1.084	0.053

Table 1. (Cont.) A list of survey items used, Cronbach alpha (α), standardized loading, mean (*M*), standard deviation (*SD*), and standard error (*SE*).

Variable	Survey Item	Loading	M	SD	SE
Approval of businesses' AI use $\alpha = 0.961$	Businesses should use AI for cost savings.	0.755	3.49	1.076	0.052
	Businesses should use AI to increase productivity.	0.824	3.59	1.038	0.051
	Businesses should use AI to improve daily operations.	0.834	3.61	1.057	0.052
	Businesses should use AI to maximize profits.	0.752	3.32	1.141	0.056
	Businesses should use AI to make better decisions.	0.836	3.55	1.095	0.053
	Businesses should use AI to reduce waste.	0.807	3.72	1.067	0.052
	Businesses should use AI to create more personalized shopping experiences for consumers.	0.827	3.44	1.141	0.056
	Businesses should use AI to gather customers' data to improve services.	0.751	3.20	1.150	0.056
	Businesses should use AI to improve relationships with customers.	0.841	3.35	1.152	0.056
	Businesses should use AI to understand the customer experience.	0.834	3.42	1.133	0.055
	Businesses should use AI to be more creative and innovative.	0.843	3.55	1.083	0.053
	Businesses should use AI to enhance the quality of its products and services.	0.851	3.61	1.099	0.054
	Businesses should maximize their use of AI.	0.761	3.22	1.149	0.056
Trust in businesses that use AI $\alpha = 0.902$	Businesses use AI in a highly dependable and reliable manner.	0.808	3.10	1.064	0.052
	Businesses are responsible and reliable in their use of AI.	0.824	3.23	1.117	0.054
	Businesses promote customers' benefits as well as their own in their use of AI.	0.881	3.20	1.108	0.054
	Businesses will not engage in any kinds of exploitative and damaging behaviors to customers through their use of AI.	0.828	3.25	1.098	0.054
Distrust in businesses that use AI $\alpha = 0.918$	Businesses exploit their customers' vulnerability through their use of AI.	0.827	3.43	0.051	1.049
	Businesses engage in damaging and harmful behaviors to customers to pursue their own interests through their use of AI.	0.882	3.31	0.049	1.001
	The way businesses use AI is irresponsible and unreliable.	0.856	3.25	0.050	1.017
	Businesses use AI in a deceptive and fraudulent way.	0.874	3.27	0.053	1.076
Attitudes $\alpha = 0.917$	Buying from businesses that use AI is a good idea.	0.881	3.13	1.043	0.051
	Buying from businesses that use AI is a wise idea.	0.920	3.07	1.039	0.051
	I feel positive about buying from businesses that use AI.	0.866	3.06	1.134	0.055
Behavioral intentions	I intend to buy from businesses that use AI more frequently.	—	2.88	1.168	0.057
	I am willing to spend more buying from businesses that use AI.	—	2.62	1.261	0.062

3.2. Data Collection

Upon approval from the first author's university's ethics committee (#2024-8995-20339), an online survey was administered to a nationally representative sample (by age and gender) of 456 Australian consumers in September 2024. The sample was recruited by Qualtrics. The respondents received remuneration based on their agreement with Qualtrics. After removing incomplete and straight-lining responses, 420 responses were retained for data analysis. Table 2 shows the demographic characteristics of the sample. The mean and standard deviation for age is 48.29 and 18.717, respectively.

Table 2. Demographic characteristics of the sample.

Individual-Level Variables	N	Percent
Age	420	
18–20	15	3.6%
21–30	78	18.6%
31–40	81	19.3%
41–50	66	15.7%
51–60	50	11.9%
61–70	59	14%
Above 70	71	16.9%
Gender		
Male	202	48.1%
Female	214	51%
Non-binary	3	0.7%
Other	1	0.2%
Education		
Less than high school	29	6.9%
High school graduate	89	21.2%
TAFE certificate or diploma	104	24.8%
Some university	21	5%
Bachelor's degree	134	31.9%
Master's degree	34	8.1%
Doctorate	6	1.4%
Other	3	0.7%
Annual pre-tax income		
Less than AUD 30,000	86	20.5%
AUD 30,001–60,000	113	26.9%
AUD 60,001–90,000	90	21.4%
AUD 90,001–120,000	48	11.4%
More than AUD 120,000	59	14%
Prefer not to answer	24	5.7%
Employment status		
Full-time	170	40.5%
Part-time	67	16%
Casual	20	4.8%
Not working	96	22.9%
Other	67	16%

Note: TAFE = Technical and Further Education.

3.3. Data Analysis

The data analysis process involved several steps. First, the data were analyzed using SPSS version 28. Specifically, the means, standard deviations, and standard errors for each item, as well as the reliability (Cronbach's alpha) for each variable, were calculated (as shown in Table 1). Second, as the measurement items were adapted or created based on existing studies, exploratory factor analysis (EFA) was run using principal component analysis (PCA) and Oblimin rotation, followed by confirmatory factor analysis (CFA) to check the validity of measurement items. The standardized loadings were reported in Table 1. Weighted composites were created based on these loadings. Third, as approval of businesses' use of AI was a newly conceptualized variable, the 13 items used were examined using PCA. The Kaiser-Meyer-Oklin value was 0.957 and Barlett's test of sphericity (Bartlett, 1954) reached statistical significance ($\chi^2 = 4887.918$, $df = 78$, $p < 0.001$). PCA analysis showed that there is one component with eigenvalue exceeding 1, explaining 68.213% of the variance. Lastly, structural equation modeling (SEM) was run on AMOS version 28 to test all the hypotheses in the hypothesized model. Age and gender were used as control variables. Hu and Bentler's (1999) joint criteria (CFI > 0.95, SRMR $\leq$ 0.10, or RMSEA < 0.06 and SRMR $\leq$ 0.10) were used to assess model fit. To test the mediation for H9, Holmbeck's (1997) procedure was adopted for testing three models, i.e., model with no mediator (Figure 1), model with full mediation (Figure 2), and model with partial mediation (Figure 3).
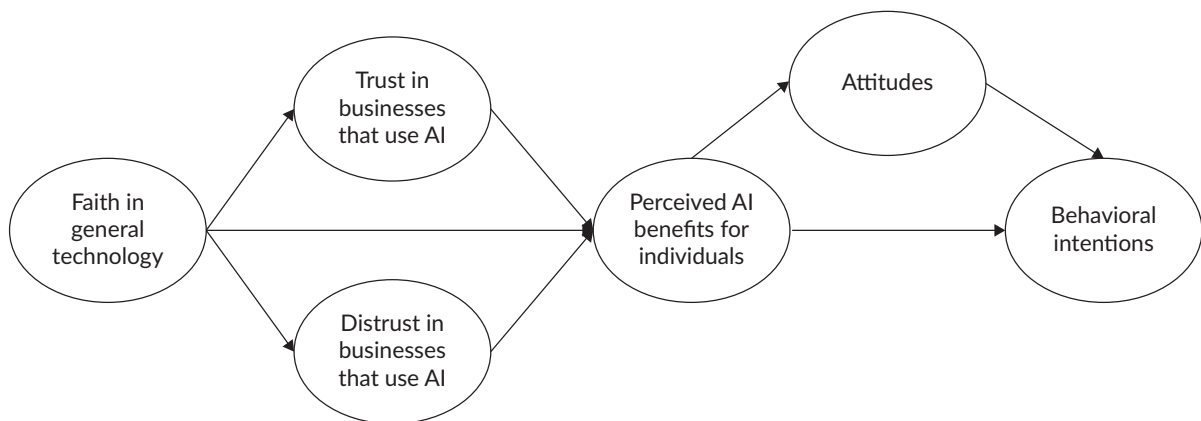

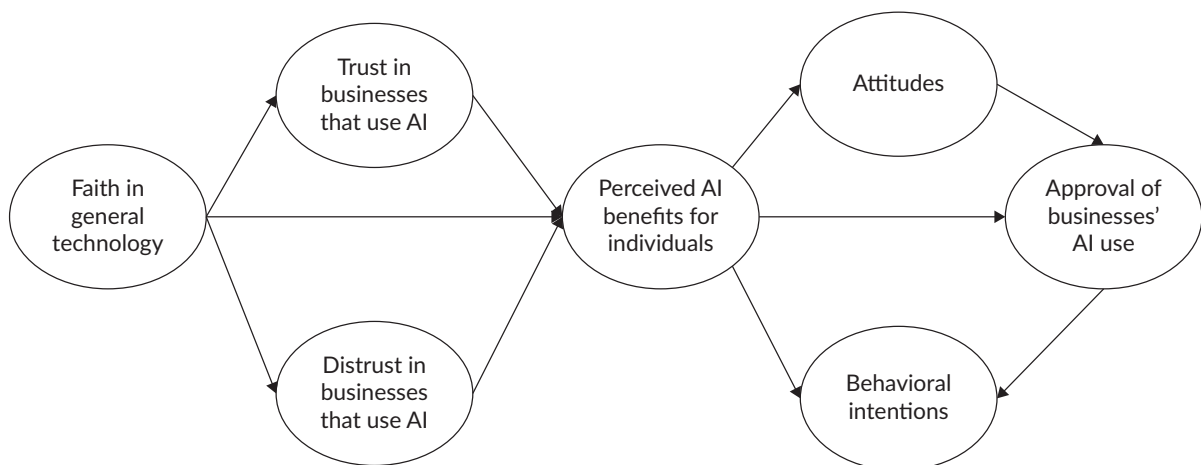**Figure 1.** Model with no mediator.
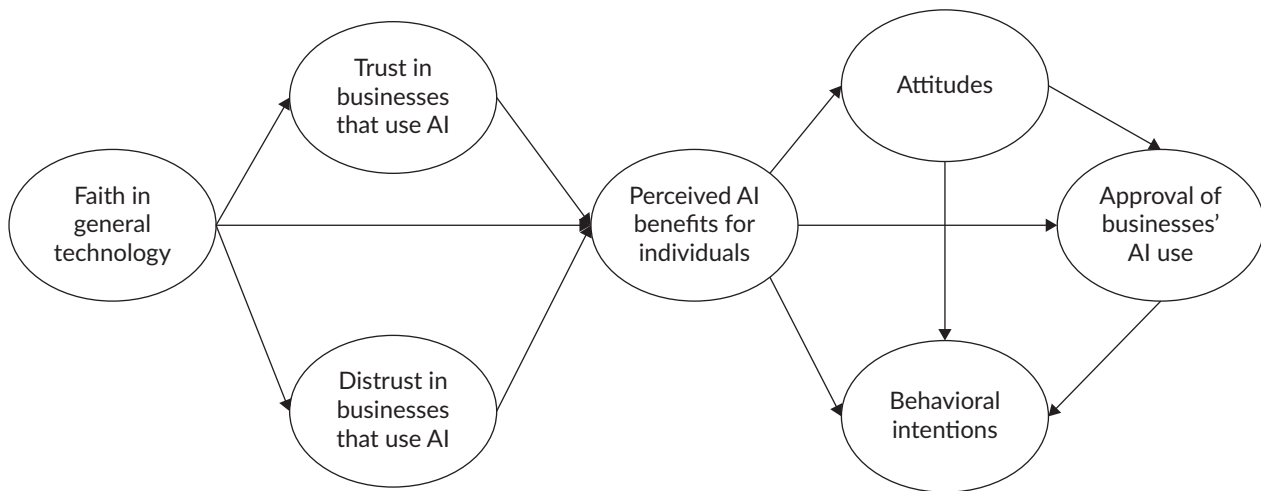

Figure 2. Model with full mediation.

Figure 3. Model with partial mediation.

4. Results

Holmbeck's (1997) procedure for testing mediation was used to test the mediation hypothesized in H12. The first model (Figure 1), which does not have approval of businesses' AI use, showed a good model fit (χ^2 = 161.858, df = 37, CFI = 0.961, RMSEA = 0.090, SRMR = 0.0373). The second model (Figure 2), with full mediation of approval of businesses' AI use between attitudes and behavioral intention, was found to have an acceptable fit (χ^2 = 259.298, df = 45, RMSEA = 0.107, SRMR = 0.0412). Finally, the third model (Figure 3), with a partial mediation, resulted in a good model fit (χ^2 = 178.406, df = 44, CFI = 0.964, RMSEA = 0.085, SRMR = 0.0359). Therefore, Figure 3 was accepted for testing hypotheses based on the fit indices. However, H12 was found insignificant (Figure 4).

Findings from the hypotheses tested are reported as follows. A positive association between faith in general technology and trust in businesses that use AI was found, so H1 was supported (β = 0.348, p < 0.001). In contrast, a negative association between faith in general technology and distrust was found (H2:
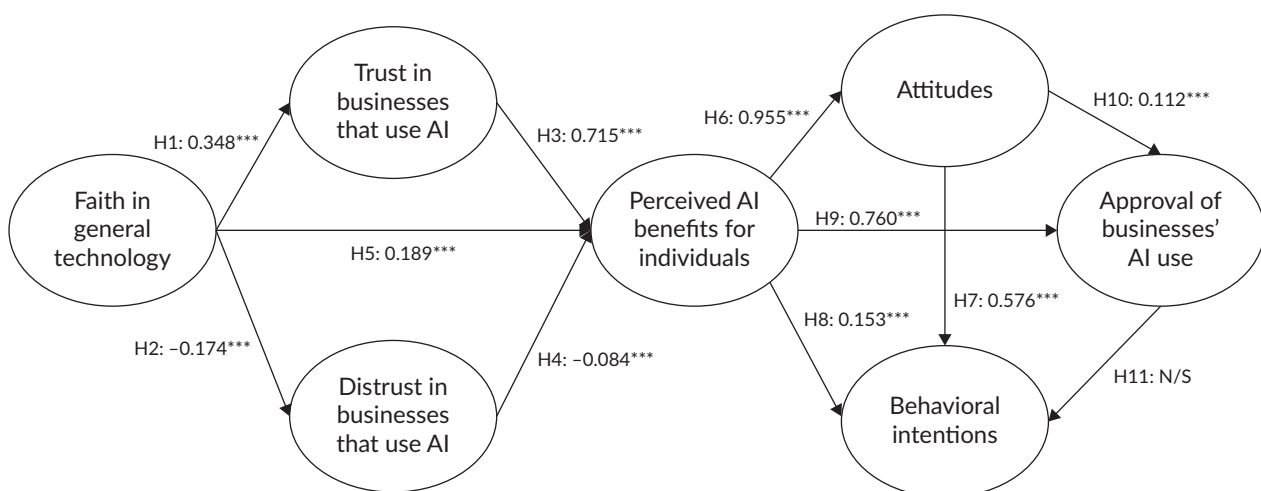

Figure 4. Results from the hypothesized model tested. Notes: N/S = non-significant; * p < 0.05, ** p < 0.01, p < 0.001; χ^2 [df] = 178.406[44]; CFI = 0.964; RMSEA = 0.085; SRMR = 0.0359.

$\beta = -0.174$, $p < 0.001$). Trust has a positive relationship with perceived benefits of products/services containing AI (H3: $\beta = 0.715$, $p < 0.001$) while distrust has a negative relationship with perceived benefits of products/services containing AI (H4: $\beta = -0.084$, $p < 0.001$). H5 predicting the mediating role of trust (H5a) and distrust (H5b) was tested; however, it turned out to be a partial mediation due to the path between faith in general technology and perceived AI benefits for individuals (H5: $\beta = 0.189$, $p < 0.001$). H6 predicting a positive relationship between perceived benefits and attitudes toward businesses that use AI was supported ($\beta = 0.955$, $p < 0.001$). As predicted, there was also a positive association between attitude toward businesses that use AI and behavioral intentions to support those businesses (H7: $\beta = 0.576$, $p < 0.001$). Perceived AI benefits for individuals were positively associated with behavioral intention (H8: $\beta = 0.153$, $p < 0.001$). Perceived AI benefits for individuals were also positively associated with approval of businesses' use of AI (H9: $\beta = 0.760$, $p < 0.001$). Attitude toward businesses that use AI is positively associated with approval of businesses' use of AI (H10: $\beta = 0.112$, $p < 0.001$). H11 predicting a positive relationship between approval of businesses' use of AI and behavioral intention was not supported. Therefore H12 suggesting the mediating role of approval of businesses' use of AI between attitudes and behavioral intention was not supported.

Regarding the effects of control variables, age and gender, there was a negative association between age and trust ($\beta = -0.294$, $p < 0.001$). There was also a negative relationship between gender and trust ($\beta = -0.100$, $p < 0.001$). Age and behavioral intention turned out a negative relationship ($\beta = -0.179$, $p < 0.001$). Finally, gender and approval turned out a negative association ($\beta = -0.065$, $p < 0.001$).

5. Discussion

In response to consumers' conflicting views about businesses' use of AI, this study tested a framework that examines the dynamics of faith in general technology, trust, distrust, and perceived benefits in influencing attitudes and behavioral intentions toward businesses that use AI. These dynamics also contributed to approval for businesses' use of AI. Current research has either examined consumers' acceptance of AI use for themselves (Kelly et al., 2023) or consumers' perceptions of interactions with AI-enabled applications adopted by businesses (Jain et al., 2024). Such research often results in general recommendations being made, such as improving transparency and streamlining processes to foster acceptance (Frank et al., 2023; Gillespie et al., 2023). Notably, consumers are skeptical about businesses' use of AI because they are uncertain about what businesses use AI for and how they use it (Haan & Watts, 2023b).

This study found the crucial roles of faith in general technology and trust in businesses in influencing individuals' perceptions of AI benefits for themselves. These perceived benefits ultimately influence attitudes, approval of businesses' AI use, and behavioral intentions toward the businesses that use AI. As predicted, attitudes were positively associated with behavioral intention to support the businesses that use AI as well as with approval of businesses' AI use. However, approval of businesses' AI use does not translate into consumers' behavioral intention to support the businesses.

Our study redirects scholarly attention to the importance of building and cultivating trust in businesses. Earlier we noted that there is a "trust gap" due to the risks associated with businesses' use of AI (Chakravorti, 2024). Our study departs from existing studies that focus on trust in and acceptance of specific technology features. To make consumers understand and accept a specific technology's functionality and benefits,

businesses ought to earn consumers' trust in their operations. While trust in a specific technology is important in terms of ensuring reliability and consistency in delivering a task, as technology evolves, focusing on task-oriented trust may be myopic. As it is businesses that develop, manage, and use certain technologies in their products/services, trust in those businesses *across situations and technologies* is essential. Trust in businesses is fundamental in businesses' relationships with customers for the long term. Thus, businesses are advised to endorse trust-building initiatives by communicating how AI is used and what it is used for (Frank et al., 2023).

Our study also found that faith in general technology serves as an antecedent to trust and distrust in businesses that use AI as a specific technology. While the associations among faith in general technology, trust, perceived benefits, attitudes, approval of businesses' AI use, and behavioral intention may show linear patterns toward AI optimism, the relationship between faith in general technology and distrust shows that when individuals do not tend to believe in general technologies, it will be challenging to address individuals' skepticism, anxiety, and distrust in a specific technology. Individuals who distrust businesses that use AI are likely to be more doubtful about AI benefits from products/services that contain AI features. From a communication perspective, future research should examine how variations in how businesses communicate their use of AI influence trust, attitudes, and behavioral intentions.

From a theoretical perspective, this study advances current research on technology adoption by assessing consumers' perceptions of technology adoption by businesses. Because businesses are a third party in control of developing, deploying, and managing AI (Frank et al., 2023; Gillespie et al., 2023), the framework tested shows the significance of trust and distrust in businesses in influencing support for businesses that use AI. Individuals may be able to assess the perceived usefulness and perceived ease of use of a new technology if they are in control. But unless businesses clearly disclose how they use AI, individuals' behavioral inclinations toward their use of AI will be dependent on trust in how businesses use AI. Future research may consider integrating perceived use and trust into existing theoretical frameworks such as the theory of reasoned action and the theory of technology acceptance.

6. Limitations and Future Directions

The limitations of this study are as follows. First, the study is tested in the context of consumers' perceptions toward businesses' general use of AI. It is possible that consumers have varying degrees of perceptions and behavioral inclinations toward specific businesses (Frank et al., 2023). Thus, future research could examine if individuals' perceptions about specific businesses influence their perceptions toward how they use AI. Second, constructs such as approval of businesses' use of AI were newly conceptualized and operationalized. Even though the conceptualizations and operationalizations were developed based on existing research, future studies should refine these constructs and measures. Third, this study has not tested existing frameworks such as the theory of reasoned action or the theory of technology acceptance (Kelly et al., 2023) in full; instead, it tested a framework that is perceived to be suitable for the research context. Future studies should explore the possibilities of using an existing framework to examine consumers' perceptions of AI use by businesses. Lastly, there is a host of antecedent variables that could be examined to extend the findings of this study, such as perceived risk (Liu et al., 2013) and privacy concerns and ethics (Mylrea & Robinson, 2023).

7. Conclusion

There is a plethora of research that has proposed different factors influencing consumers' acceptance of AI use. In the context of consumers' support for businesses that use AI, this study has identified the significance of trust and distrust as mediating factors between individuals' perceived AI benefits and behavioral inclinations. Moreover, consumers who are optimistic about the benefits of AI are generally also optimistic about how businesses use AI. Consumers are aware that AI use by businesses is inevitable, but how they use AI is often unregulated (Mylrea & Robinson, 2023). Future research should further theorize consumers' evaluation of businesses' AI use as a central variable in shaping acceptance of businesses' AI adoption.

Conflict of Interests

The authors declare no conflict of interests.

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