

Does Innovation Matter? A Customer-Centric Analysis Across Organizational Forms

ABSTRACT

Management literature suggests that innovation facilitates organizational performance and service quality in businesses and nonprofits. Customers' evaluation is essential for operations, and organizations must embed practices that address customer needs. However, little literature explores factors affecting customers' perceived innovativeness. Comparing the differences in innovation between businesses and nonprofits from customers' perspectives would help understand innovation practices across organizational forms. This study conducted a between-subject 3 (no/technological/managerial innovation) x 2 (for-profits/nonprofits) factorial design to test the effects of innovation on customers' perceived organizational quality and their willingness to contribute to organizations. We tested a mediation model linking the relationship between innovation, customer's perceived organizational quality, and their willingness to contribute, with organizational form as a contextual factor. Theoretically, our findings complemented signaling theory regarding signal strength, which suggests that organizational form is a strong quality signal, whereas innovation is a weak signal. Practically, the results challenged the prevailing emphasis on innovation.

Keywords

Innovation, signaling theory, customer perception, organizational quality

Word count: 9181 words

INTRODUCTION

Schumpeter pioneered the recognition of innovation as an organization's factor of success. Innovation is important because it enables differentiation (Baregheh et al., 2009) and can contribute to maintaining superior organizational performance and competitive advantage (Jin et al., 2004). Innovation also enables organizations to provide better quality services to their customers (Suh et al., 2018). Research on innovation in the studies of nonprofit and social enterprises in particular has gained momentum in recent years, but two important oversights have stalled its progress (de Wit et al., 2019; Jaskyte, 2020).

Contributions to theory have mostly been firm-centered rather than customer-centered (Kurtmollaiev, Lervik-Olsen, and Andreassen, 2022) – to whom public goods providers are ultimately accountable (Benjamin, 2021; Farwell et al., 2019). Although innovation studies on the organizational level provide valuable insight—the influence of innovation on organizations' financial performance and growth (Ferreira et al., 2015; Jaskyte, 2020), customer perceptions of organizations' innovation haven't been fully explored, especially in the nonprofit context. Realizing the important implications of customer perceptions for business management, in this article, we, therefore, ask whether innovation is salient to consumers.

Several studies have emphasized that consumer choice is primarily based on their judgment of the quality of goods and services, and they use a variety of quality signals such as third-party certifications (Becker, 2018), user ratings (De Langhe et al., 2015), price (Hirshleifer, 2015), organization types (Witesman et al., 2022) and innovation (Davis et al., 2017) as *a priori* signals to help make decisions. However, the underlying mechanisms through which quality signals promote customers' intentions to contribute to organizations haven't been untangled yet. Also, the omission of the complex institutional environment in innovation research is particularly noteworthy. Past studies have focused on innovation in a single institutional setting, such as businesses (Kurtmollaiev et al., 2022) or nonprofits (Jaskyte, 2020) and lack an analytical approach that is complex with the recognition of blurry boundaries, thus falling short of capturing the distinctive institutional complexity across organizational contexts that may moderate customers' perceptions.

Recognizing these knowledge gaps, recent literature has repeatedly called for more research on customer perspectives (e.g., Benjamin, 2021; Kurtmollaiev et al., 2022), specifically, how customers perceive the quality of human service organizations. Empirically, there is also a strong need for research designs that complement quantitative studies (e.g., Camisón and Villar-López, 2014; Kurtmollaiev et al., 2022) and focus on assessing the signaling mechanisms helping and hindering customers' supportive behavior. In addition, some have argued that more attention is needed to analyze this topic in a mixed market setting in this regard (Witesman et al., 2022).

In this paper, we drew on recent developments in innovation and customer-centered literature and highlighted the value of signaling theory. We grounded our theoretical predictions in the context of the human service organizations dwelling in varied organizational contexts. In particular, we examined how two kinds of innovation – technological innovation and managerial innovation – shape customers' perception of the organization's quality and further influence their willingness to contribute to that organization. Technological innovation and managerial innovation are two primary types of innovations, with the former focused more on products and the latter more on processes. Our goal is to understand whether these two types of innovations within the organization are related to customers' perception of the organization's quality. By

focusing on customers and the quality signaling mechanisms, our paper aimed to contribute to a more comprehensive understanding of the support behavior of customers.

By using an experimental design, this study made a number of contributions to the current literature. Empirically, we proposed and tested a mediation model revealing the relationship between innovation, customer's perception of the organization's quality, and customer's willingness to contribute. We also included organizational forms as a contextual factor in this mediation model. Theoretically, our findings complemented the current signaling theory literature in regard to signal strength, which suggests that organizational form is a strong quality signal, whereas innovation is a weak signal. Practically, this study posited some management implications on innovation. In contrast to the enthusiastic advocacy for innovation, we found that innovation is not important when customers evaluate an organization's quality. Therefore, organizations can be less preoccupied with being innovative if they care about their customers' perspective.

In the next section, we provided a brief theoretical background that motivates our effort to draw on the signaling theory perspective (Spence, 1973) to advance our understanding of customer support behavior in the context of human service organizations. Following that, we developed a set of hypotheses grounded in our empirical context and the signaling theory perspective. We then conduct the experiment via CloudResearch and present the results. We concluded this paper by discussing the implications of our findings theoretically and practically.

THEORETICAL PERSPECTIVE AND HYPOTHESES

Customer perspective is important for the practice of public management. Literature suggests that customer evaluation is important for the organization's daily operations, and the ability to better cater to the needs of customers should be embedded in the organization's practice (e.g., Bel et al., 2014). More importantly, customer choice is an important dynamic in the structure and function of markets (Thaler, 1980) as it not only helps to improve generated income and enhance the organization's value (Prohl-Schwenke and Kleinaltenkamp, 2021; Verma and Plaschka, 2005) but also build long term relationship and trust by increasing loyalty (Fawcett and Cooper, 2000).

In a market with various service providers, for those customers with limited information and personal experiences, their decision depends not only on the service's objective merits, but on how they perceive them (Thaler, 1980; Van Slyke and Roch, 2004). Therefore, as a communication strategy, organizations use different approaches to send out information to signal their unobserved characteristics and shape the stakeholder's perception (Feldman and Lynch, 1988). These signals are utilized by customers a priori to judge the likely quality of goods and services.

Innovation is defined as the "adoption of an internally generated or purchased device, system, policy, program, process, product, or service that is new to the adopting organization" (Damanpor, 2018, p. 556). Innovation is frequently advocated by key stakeholders in the human service industry for its potential to enhance service delivery (de Wit et al., 2019), and its adoption often leads to favorable outcomes such as increased competitive advantage, efficiency and productivity, and customer satisfaction (Khazanchi et al., 2007; Lam, 2004; Sappasert and Clausen, 2012). However, customer perception of organizations' innovativeness, in particular, is the central puzzle. In this study, we focus on innovation as a signal and test how customers perceive the organization's innovativeness in human services.

Findings are mixed regarding public support for organizations with higher levels of innovation. Business studies show a positive relationship between innovation, customer

satisfaction, and financial performance (Černe et al., 2015; Gök and Peker, 2017; Lee et al., 2015; Zahra and Das, 2009). However, other research found that innovation is not a significant predictor of public support (Jaskyte, 2020). When it comes to customer perception, research on signaling theory has found that funders show positive affective reactions to product innovation (Davis et al., 2017; Oo et al., 2019).

Technological Innovation and Managerial Innovation

Business and nonprofit scholars have often conceptualized innovation according to two categories: technological innovation and managerial innovation (e.g., Henao-Garcia and Montoya, 2023; Jaskyte, 2020). Technological innovation refers to product/service innovation (Damanpour, 2010), and managerial innovation refers to internal organizational process innovation (Walker et al., 2015). Organizations face increased pressure to differentiate themselves in the marketplace through innovation, which is usually addressed through product and technology-focused development. However, prior research also points out that, from the customer's perspective, managerial innovation, which is more broad-based and systematic and could potentially result in novel solutions, has a special value (Kunz et al., 2011). Using a large-scale dataset, Kurtmollaiev and colleagues (2022) provide empirical evidence that perceived changes in value proposition (i.e., the introduction of changes in the product) and in value actualization (i.e., the introduction of novel mechanisms of service delivery) are positively associated with customers' perceived firm innovativeness, which, in turn, has a positive impact on firms' relative attractiveness. Similarly, in the fine dining context, researchers found that the menu-, service-, and customer experience-related innovativeness strongly correlated with customer satisfaction, and the results of a qualitative study indicate that the quality of the dishes, the service, and the customers' experience drives customer satisfaction (Vo-Thanh et al., 2024). When customers are more satisfied with their experiences, they will be more willing to contribute to the organization. Based on the empirical evidence above, and building on signaling theory, we argue that innovativeness can be perceived by customers as a signal of the organization's quality, which thus will lead to greater customer contribution to the organization. Therefore, we test the following hypotheses:

Hypothesis 2. A technological innovation signal will lead to greater willingness to contribute to the organization.

Hypothesis 4. A managerial innovation signal will lead to greater willingness to contribute to the organization.

The Mediating Role of Customers' Perceived Quality of the Organization

When presenting their organization and communicating the service it provides to customers, organizations often face the challenge of demonstrating its quality, especially when customers first encounter an organization (Thaler, 1980). In addition to the relationship between these two different types of innovation and customers' reactions, prior literature also provides further evidence that there is a relationship between innovativeness, quality, and performance at the organizational level. Specifically, quality mediates the relationship between innovativeness and profitability (Cho and Pucik, 2005). Witesman and colleagues (2022) also proposed four possible mechanisms of customer perception of quality signals and called for further examination of customer perceptions of quality. In this study, we thus propose perceived organizational quality as one such possible mediator.

When the determination of the quality of a product or service is highly subjective, customers may rely on some other appealing and observable signals as their choice base. We might expect technological innovation to provide a *product quality* signal because a commitment

to making changes to adapt over time would suggest a motive to invest in the quality of services. Managerial innovation, on the other hand, has the potential to provide a *process quality* signal when it is hard to observe the process of delivering a product/service prior to purchase (Witesman et al., 2022).

Research indicates that customers' positive perceptions of organizations do not directly impact financial earnings. However, they do impact earnings through customer satisfaction (Ghanbarpour and Gustafsson, 2022). More specifically, innovativeness not only has an impact on customer loyalty, but it's their perception of the service quality that partially mediates the impact (Kim et al., 2021). Accordingly, we argue that organizations showing technological and managerial innovation signals will enhance customers' perception of the organization's functional competence, trigger their feelings of satisfaction, and foster customers' intentions to contribute as a consequence. We thus hypothesize:

Hypothesis 1. A technological innovation signal will lead to greater perceived organizational quality.

Hypothesis 3. A managerial innovation signal will lead to greater perceived organizational quality.

Hypothesis 5. Perceived organizational quality mediates the relationship between an innovation signal and willingness to contribute to the organization.

The Moderating Role of Organizational Form

Organizational form plays an enduring role in customers' perception of products or services in mixed-market settings. However, organizational form is an indirect quality signal, and customers prefer more direct quality signals when making consumption decisions (Witesman et al., 2022). In addition, innovation can have different meanings in various organizational contexts. For instance, nonprofit practitioners' perspectives on innovation emphasize achieving organizational goals for social change over financial outcomes (Svensson et al., 2020). Also, people perceive nonprofits as being warmer and slightly more competent than for-profits (Xu, 2020). Kunz and colleagues (2011) proposed that perceived innovativeness impacts customers via two processing routes: a functional-cognitive route and an affective-experiential route. They further indicate that customer emotions and experiences should be taken into account when the organization intends to influence customers with their innovation. Overall, we believe that organizational form is an important factor in customers' consumption decision-making. It is important to unpack organizational form's role in the relationship between innovation, perceived quality, and customer consumption intention. This study thus examines whether customers react to innovation practices in different organizational settings differently. See Figure 1 for the conceptual framework. This study hypothesizes:

Hypothesis 6. The organizational form signal moderates the effect of an innovation signal on customers' willingness to contribute to the organization.

Insert Figure 1 about here

METHODS

Below we described the research design of the experiment, the research participants, the procedure, and the measures of all variables used in the study.

Design

The research used a between-subjects 3 (no vs. technological vs. organizational innovation) x 2 (nonprofit vs. for-profit organizations) factorial design to test the effects of

innovation and organization type on participants' willingness to contribute to the organization: their willingness to pay and the amount they are willing to pay. The study manipulated the types of innovation and organization through six vignettes that include hypothetical information about healthcare service organizations. The study used healthcare services as the experimental setting because most people have purchased healthcare services and for-profit and nonprofit healthcare organizations coexist in the U.S. The hypotheses and analysis plan of the study were pre-registered through the Wharton Credibility Lab (AsPredicted.org) to improve the quality and transparency of the research. See Appendix1 for our anonymized pre-registration. The study was reviewed and approved by our University Institutional Review Board.

Participants

The study surveyed 701 participants who are American and over 18 years old from the CloudResearch Prime Panels platform (60.5% female, 39.1% male, 80.6% White, 14.8% Black/African American, $M_{age}=51.79$). CloudResearch Prime Panels is an online market research platform that allows researchers to use data quality redirects. The participants were reminded of the data quality check question before taking the survey, and they were redirected to the end of the survey and not paid by the researchers if they incorrectly answered the attention check question. According to the G power sample size analysis (Effect size f: 0.1; α err prob: 0.05; Power (1- β err prob): 0.8; Numerator df: 2; Number of groups: 6; Number of covariates: 9; Total sample size: 967), the study planned to collect up to 967 participants. However, the researchers excluded participants who incorrectly answered the manipulation question of organizational form for the final analysis. Thus, the total number of participants reached 701. See Table 1 for the sample characteristics.

Insert Table 1 about here

Procedure

Participants were directed to take an online survey through a Qualtrics link generated by the researchers. Participants first reported yes/no if they were at least 18 years old and lived in the United States after they read the survey information and consent. If yes, participants were randomly assigned to one of six vignettes: (1) a no innovative service/product offered by a nonprofit organization, (2) a technologically innovative service/product offered by a nonprofit organization, (3) an organizationally innovative service/product offered by a nonprofit organization, (4) a no innovative service/product offered by a for-profit organization, (5) a technologically innovative service/product offered by a for-profit organization, (6) an organizationally innovative service/product offered by a for-profit organization. The six vignettes can be found in Appendix 2.

After reading their assigned vignette, participants responded to the manipulation check questions of organizational form and innovation type. They also were asked to rate the organizational quality. Then they reported their willingness to pay and the amount they were willing to pay for an initial healthcare consultation. During the survey, participants answered an attention check question by reading the instructions: please select "Volunteering" for the answer and this item is for verification purposes. The response options included volunteering, mentoring, providing monetary contributions, joining charitable organizations, donating for tax purposes, and other charitable activities. After responding to the attention check question, participants briefly recounted why being innovative matters for an organization and the most

important organizational characteristics influencing their buying choices. Finally, participants answered questions regarding their personalities and demographic details such as age, gender, race, education, and income. See Figure 2 for a depiction of the experimental procedure.

Insert Figure 2 about here

Variables and Measures

Willingness to contribute. Participants responded to two questions. First, participants answered one question about how much they agreed or disagreed with the following statement using a scale ranging from 1 (strongly disagree) to 7 (strongly agree). The item stated: “I am willing to buy this service/product from this organization.” (adapted from Taylor and Todd, 1995; Tsai, Hung and Yang, 2020). Then, participants responded to the following question: “if you needed to purchase healthcare services, how much would you be willing to pay for an initial consultation from the ORGANIZATION you just read about? Please use the slider below to select a specific amount of money from \$0-\$500” (adapted from Castaldo et al., 2009). See Table 2 for constructs and indicators and Table 3 for descriptive statistics.

Insert Table 2 and 3 about here

Organizational form. Immediately after reading the assigned vignette, participants reported what kind of organization is described in the previous paragraph (nonprofit/ for-profit organization). Participants were excluded in the final analysis if they incorrectly answered the organizational form they were assigned to.

Innovation. Participants indicated how much they agree or disagree with the following statements using a scale from 1 (strongly disagree) to 7 (strongly agree) after they read the assigned vignette. The three items included: “I think this service comes up with new and innovative ideas to improve health services.” (innovation) “I think this service often uses new technologies in health services.” (technological innovation) “The organization considerably changes the organization structure to facilitate innovation.” (managerial innovation) These three items were adapted from Akter, Babu and Hossain (2022) and Jaskyte (2020). We averaged responses across all 3 items ($\alpha = .82$).

Perception of organizational quality. Participants rated the quality of the organization they were assigned to read using a scale from 1 (low quality) to 7 (high quality).

This study included several covariates and exploratory variables that may influence participants’ willingness to purchase the service/product and pay the amount for an initial consultation. These variables are described below.

Personal innovation. Participants indicated how much they agreed or disagreed with the following three statements using a scale from using a scale from 1 (strongly disagree) to 7 (strongly agree): “I like to take chances.” “I like to experiment with new ways of doing things.” “New products are usually gimmicks.” (adapted from Thakur, Angriawan and Summey, 2016; Leonard-Barton and Deschamps, 1988). We averaged responses across all 3 items ($\alpha = .47$).

Perception of innovation and important organizational characteristics. Participants answered one open-ended question in their own words to describe why being innovative matters for an organization. They also chose the most important organizational characteristics influencing their purchase choices from the following options: organization’s size, organization’s mission, organization’s reputation, third-party certifications, and others.

Regulatory focus. Participants responded to a set of questions that asked them how frequently specific events actually occur or have occurred in their lives using a scale from 1 to 5. These eleven items comprised the Regulatory Focus Questionnaire (RFQ: Higgins et al., 2001) and included the following: “Compared to most people, are you typically unable to get what you want out of life? (1=never or seldom, 3=sometimes, 5=very often)” “Growing up, would you ever “cross the line” by doing things that your parents would not tolerate? (1=never or seldom, 3=sometimes, 5=very often)” “How often have you accomplished things that got you “psyched” to work even harder? (1=never or seldom, 3=a few times, 5=many times)” “Did you get on your parents’ nerves often when you were growing up? (1=never or seldom, 3=sometimes, 5=very often)” “How often did you obey rules and regulations that were established by your parents? (1=never or seldom, 3=sometimes, 5=always)” “Growing up, did you ever act in ways that your parents thought were objectionable? (1=never or seldom, 3=sometimes, 5=very often)” “Do you often do well at different things that you try? (1=never or seldom, 3=sometimes, 5=very often)” “Not being careful enough has gotten me into trouble at times. (1=never or seldom, 3=sometimes, 5=very often)” “When it comes to achieving things that are important to me, I find that I don’t perform as well as I ideally would like to do. (1=never true, 3=sometimes true, 5=very often true)” “I feel like I have made progress toward being successful in my life. (1=certainly false, 5 certainly true)” “I have found very few hobbies or activities in my life that capture my interest or motivate me to put effort into them. (1=certainly false, 5 certainly true)”

Covariates and exploratory variables. In addition to the covariates and exploratory variables above, this study included other covariates, such as Big Five personality traits (i.e., extraversion, agreeableness, openness, conscientiousness, and neuroticism), age, gender, and income. It also included race and education as exploratory variables.

RESULTS

We first examined correlations between participants’ willingness to pay, the amount they were willing to pay, innovation type, organizational form, perceived organizational quality, perceived innovativeness, other covariates, and exploratory variables (See Table 4). We found that organizational form, age, and prevention scores on the regulatory focus questionnaire, were negatively correlated with participants’ willingness to pay ($r=-.09$, $r=-.15$, $r=-.90$, respectively; $p<.05$, $p<.001$, $p<.05$, respectively), and with the amount they were willing to pay ($r=-.01$, $r=-.27$, $r=-.16$, respectively; $p<.01$, $p<.001$, $p<.001$, respectively). Participants’ perceived organizational quality, perceived innovativeness, and income were positively correlated with participants’ willingness to pay ($r=.60$, $r=.22$, $r=.09$ respectively; $p<.001$, $p<.001$, $p<.01$, respectively), and with the amount they were willing to pay ($r=.26$, $r=.29$, $r=.14$, respectively; $p<.001$, $p<.001$, $p<.001$, respectively). However, innovation type was not significantly correlated with participants’ willingness to pay or the amount they were willing to pay ($r=-.01$, $r=-.01$, respectively; $p>.81$, $p>.84$, respectively).

Insert Table 4 about here

Manipulation Checks for Innovation Type

We conducted a one-way ANOVA on the innovation type variable to verify a successful manipulation. The results demonstrated a statistically significant difference in participants’ perceived innovation type according to the item of technological innovation (i.e., “I think this service often uses new technologies in health services.”), $F(2) = 4.230$, $p < .05$. A post-hoc test showed significant pairwise differences between no innovation and technological innovation

type, with an average difference of -.23 scores ($p < .05$), but no significant pairwise differences between no innovation and organizational innovation type, with an average difference of -.19 scores ($p < 0.1$). The results revealed no statistically significant difference in participants' perceived innovation type according to the item of general innovation (i.e., "I think this service comes up with new and innovative ideas to improve health services."), $F(2) = 1.578, p > .20$, or the item of organizational innovation (i.e., "The organization considerably changes the organization structure to facilitate innovation."), $F(2) = 1.156, p > .32$

We also ran a two-way ANCOVA with covariates and exploratory variables (i.e., previous organizational quality, perceived innovativeness, regulatory focus questionnaire, Big Five traits, and demographic information) to test the main hypothesis of the effects of innovation type on participants' willingness to pay and the amount of their willingness to pay (see Table 5).

Insert Table 5 about here

Main Effects of Conditions

Main effects of innovation type. There was no significant effect of innovation type on participants' willingness to pay, $F(2, 701) = .06, p = .941, \eta^2 = .000$, or the amount of their willingness to pay, $F(2, 701) = .78, p = .461, \eta^2 = .002$. Participants were not significantly more willing to pay or willing to pay more amount in the conditions of technological innovation ($M_{\text{tech}} = 4.70, SD_{\text{tech}} = .09; M_{\text{tech}} = 138.16, SD_{\text{tech}} = 8.31$, respectively) or organizational innovation ($M_{\text{org}} = 4.70, SD_{\text{org}} = .09; M_{\text{org}} = 127.40, SD_{\text{org}} = 8.49$, respectively) than the condition of no innovation ($M_{\text{no}} = 4.74, SD_{\text{no}} = .09; M_{\text{no}} = 124.41, SD_{\text{no}} = 7.96$, respectively) after controlling for the effects of all pre-registered covariates. The results did not support hypotheses 1 through 4. There was no significant effect of innovation type on participants' willingness to pay, $F(2, 701) = .18, p = .833, \eta^2 = .001$, or the amount of their willingness to pay, $F(2, 701) = .60, p = .550, \eta^2 = .002$, after controlling for the effects of all pre-registered covariates and exploratory variables. The results did not support hypotheses 1 to 4. Thus, a technological innovation signal or a management/organizational innovation signal did not lead to a higher willingness of participants to pay or a higher amount than a no innovation signal. See Figures 3 and 4.

Insert Figures 3 and 4 about here

Mediating effects of perceived organizational quality. We conducted a bootstrapping analysis using innovation type as the independent variable, participants' perceived organizational quality as a mediator, and participants' willingness to pay and the amount of their willingness to pay as the dependent variable (process model 4, Hayes, 2012). For participants' willingness to pay, first, the condition of the technological innovation type (vs. no innovation type) and the organizational innovation type (vs. no innovation type) were not significantly perceived to have higher organizational quality ($\beta = .13, t(698) = 1.22, p = .22; \beta = .07, t(698) = .68, p = .50$, respectively). Second, higher organizational quality perceptions increased participants' willingness to pay ($\beta = .69, t(697) = 19.84, p < .001$). Lastly, the unstandardized indirect effect of technological and organizational types (vs. no innovation type) via perceived organizational quality was not significantly supported (.07, 95% CI = -.06 to .24; .05, 95% CI = -.10 to .19, respectively), given zero fell within the confidence interval.

For the amount of participants' willingness to pay for an initial consultation, first, the condition of the technological innovation type (vs. no innovation type) and the organizational

innovation type (vs. no innovation type) were not significantly perceived to have higher organizational quality ($\beta = .13$, $t(698) = 1.22$, $p = .22$; $\beta = .07$, $t(698) = .68$, $p = .50$, respectively). Second, higher organizational quality perceptions increased participants' willingness to pay ($\beta = .69$, $t(697) = 19.84$, $p < .001$). Lastly, the unstandardized indirect effect of technological and organizational types (vs. no innovation type) via perceived organizational quality was not significantly supported (3.60, 95% CI=-2.21 to 9.80; 2.00, 95% CI=-3.87 to 8.16, respectively), given zero fell within the confidence interval. Overall, the results did not support hypothesis 5. That means participants' perceived organizational quality did not mediate the relationship between an innovation signal and their willingness to pay and pay a higher amount.

Moderating effects of organizational form. There was no significant moderating effect of organizational form on participants' willingness to pay, $F(2, 701) = 1.73$, $p = .179$, $\eta^2 = .005$, or the amount of their willingness to pay, $F(2, 701) = .29$, $p = .750$, $\eta^2 = .001$, after controlling for the effects of all pre-registered covariates. The results did not support our pre-registered exploratory hypothesis 6. That is, the organizational form signal did not significantly moderate the effect of an innovation signal on participants' willingness to contribute to the organization. While organizational form was not significantly moderating the effect of innovation type on participants' willingness to pay or the amount of their willingness to pay, there was a marginally significant effect of organizational form on participants' willingness to pay, $F(1, 701) = 3.44$, $p = .064$, $\eta^2 = .005$, and the amount of their willingness to pay, $F(1, 701) = 4.88$, $p = .028$, $\eta^2 = .007$, after controlling for the effects of all pre-registered covariates. There was also a significant effect of organizational form on participants' willingness to pay and the amount of willingness to pay, $F(1, 701) = 4.63$, $p = .032$, $\eta^2 = .007$, $F(1, 701) = 55.09$, $p = .024$, $\eta^2 = .007$, respectively, after controlling for the effects of all pre-registered covariates and exploratory variables.

We further used organizational form as the independent variable, participants' perceived organizational quality as a mediator, and participants' willingness to pay and the amount of their willingness to pay as the dependent variable to conduct a bootstrapping analysis (process model 4, Hayes, 2012). For participants' willingness to pay, first, the nonprofit organization (vs. for-profit organization) was significantly perceived to have higher organizational quality ($\beta = -.21$, $t(699) = -2.28$, $p < .05$). Second, higher organizational quality perceptions increased participants' willingness to pay ($\beta = .69$, $t(698) = 19.68$, $p < .001$). Lastly, the unstandardized indirect effect of a nonprofit organization (vs. for-profit organization) via perceived organizational quality was significantly supported (-.14, 95% CI=-.26 to -.02). For the amount of participants' willingness to pay for an initial consultation, first, the condition of the nonprofit organization (vs. for-profit organization) was significantly perceived to have higher organizational quality ($\beta = -.21$, $t(699) = -2.28$, $p < .05$). Second, higher organizational quality perceptions increased participants' willingness to pay a higher amount of money ($\beta = .27.32$, $t(698) = 6.80$, $p < .001$). Lastly, the unstandardized indirect effect of the nonprofit organization (vs. for-profit organization) via perceived organizational quality was significantly supported (-5.65, 95% CI=-11.07 to -.7). Overall, participant's perceived organization quality mediates the relationship between an organizational form signal and their willingness to pay and also to be willing to pay a higher amount.

Differences between technological and organizational innovations. We ran t-test analyses to explore the differences between technological and organizational innovations. The results showed no significant difference between the conditions of technological and organizational innovation on participants' perceived organizational quality, $t(454) = .547$, $p = .870$,

($M_{tech}=5.56$; $M_{org}=5.50$). There was also no significant difference between the conditions of technological and organizational innovation on participants' willingness to pay, $t(454) = .49$, $p = .765$ ($M_{tech}=4.77$; $M_{org}=4.71$), or on their willingness to pay a higher amount, $t(454) = 1.20$, $p = .870$ ($M_{tech}=\$141.57$; $M_{org}=\$127.51$). That means technological innovation and organizational innovation lead to similar levels of participants' perceived organizational quality and their willingness to pay and pay a higher amount.

Effects of Covariates and Exploratory Variables

Personal innovation. Participants who have higher scores on personal innovation are more willing to pay, $F(1, 701) = 21.10$, $p < .001$, $\eta^2=.030$, and report greater amounts they are willing to pay, $F(1, 701) = 19.98$, $p < .001$, $\eta^2=.028$, after controlling for the effects of all pre-registered covariates and exploratory variables.

Regulatory focus. There was no significant effect of the promotion score on participants' willingness to pay, $F(1, 701) = .564$, $p = .453$, $\eta^2=.001$, or the amount of their willingness to pay, $F(1, 701) = 2.145$, $p = .143$, $\eta^2=.003$, after controlling for the effects of all pre-registered covariates and exploratory variables. There was also no significant effect of the promotion score on participants' willingness to pay, $F(1, 701) = 1.993$, $p = .158$, $\eta^2=.003$, or the amount of their willingness to pay, $F(1, 701) = 2.534$, $p = .112$, $\eta^2=.004$ after controlling for the effects of all pre-registered covariates and exploratory variables.

Other covariates and exploratory variables. Older participants were more willing to pay and pay higher amounts, $F(1, 701) = 25.98$, $p < .001$, $\eta^2=.036$, $F(1, 701) = 46.23$, $p < .001$, $\eta^2=.063$, respectively after controlling for the effects of all pre-registered covariates. More conscientious participants were more willing to pay, $F(1, 701) = 11.81$, $p < .001$, $\eta^2=.017$ after controlling for the effects of all pre-registered covariates. Participants who had higher incomes were more willing to pay higher amounts for an initial consultation, $F(1, 701) = 14.58$, $p < .001$, $\eta^2=.021$ after controlling for the effects of all pre-registered covariates. White people are more willing to pay higher amounts for an initial consultation, $F(1, 701) = 6.83$, $p < .01$, $\eta^2=.010$, after controlling for the effects of all pre-registered covariates and exploratory variables.

Perception of important organizational characteristics. Participants considered the organization's reputation and mission are the two most important organizational characteristics that would influence their buying choices (50%, 41%, respectively). Only a few participants chose third-party certification and the organization's size as important characteristics (2%, 3%, respectively).

DISCUSSION

Social purpose organizations face increased pressure to differentiate themselves in the marketplace through innovation since innovation is believed to facilitate organizational sustainability and impact (Faulk, 2014; Terzo et al., 2023). As a consequence, the form of innovativeness (i.e., technological innovation, managerial innovation) can imply a type of organizational quality (e.g., Kim et al., 2021). Innovating for growth is a strategy used regularly in business organizations (Richardson et al., 2023). In recent years, advocacy for innovation has been pervasive in the nonprofit field as well. Innovation is critical for nonprofits to address societal challenges effectively (Lim, 2010; Kaplan and Pole, 2003), achieve social transformation and financial sustainability (Swensson et al., 2020), and to remain viable (Richardson and Kelly, 2023).

Although quality signals such as innovation and organizational forms have been shown to influence stakeholders' supportive behavior toward focal organizations, potential mediation effects have not been sufficiently examined in previous research. The present research

investigates whether an organization's innovation leads to a higher level of customers' willingness to support. It specifically focuses on the mediating role of the perception of quality on an organization's innovation and customers' intentions to contribute. It further provides implications for organizations that care about their customers' perceptions and support to recognize what organizational characteristics to signal and communicate.

We find that innovativeness doesn't influence customers' willingness to contribute to an organization. Although prior literature suggests that customer perceptions of innovation – not just new products or technologies but the innovative efforts of the entire organization - affected their loyalty to the focal organization (Kunz et al., 2010), based on the results reported above, we find that innovativeness doesn't matter to customers, although the perception of organization quality has a constant significant relationship with their willingness to contribute.

One of our key findings was that innovativeness did not signal organizational quality through customers' eyes. Our data is consistent with the expectation that customers believe they will receive some added utility from purchasing services from organizations with high quality through their perception. A surprising finding from our data is that customers don't believe innovativeness – either technological or managerial innovation - has anything to do with organizational quality. In fact, compared to innovativeness, an organization's legal status seems to be a stronger signal of the organization's quality.

Another interesting finding involved people's pre-existing perceptions and understanding of innovation. To better understand how people interpret innovation, in the survey experiment, we ask the participants to give their own description of why being innovative matters for an organization, their answers confirm four major aspects of innovation: adaptation (e.g., Ferreira et al., 2015), differentiation (e.g., Baregheh et al., 2009), quality (e.g., Kunz et al., 2011), and positive externality (e.g., OECD and Eurostat, 2018).

In addition to the experimental effects, we included a range of covariates that may affect individual purchasing behavior. We note the significant results of some covariates, including personal innovation, age, being more conscientious, income, and race. Although it was not the focus of our study, future research may further explore the personality and demographic differences related to customers' perception of innovation.

Overall, customers don't think innovation presents an organization's quality in a human service context, and they don't show a strong willingness to contribute to those organizations by purchasing their services. Our data cannot fully determine why, but the qualitative data from our open-ended question in the vignette provides some initial thoughts. First, people don't expect human service providers to be innovative since they need routine and regular services. As one participant said, "not every organization needs to remake the wheel." Second, it is possible that customers believe that innovation can differentiate one organization from another but not necessarily make high-quality organizations stand out, because innovation might be critical for the organization in terms of capacity enhancement and growth but doesn't matter for the customers themselves.

THEORETICAL AND PRACTICAL IMPLICATIONS

We shed light on the topic of innovation by applying insights from signaling theory to make predictions about contribution differences among customers. Our results directly speak to long-term advocacy for innovation (e.g., Richardson and Kelly, 2024) that innovation matters a lot for organizations' growth. Our study contributes to the existing literature on innovation in several ways. We bring customers' views and voices more central to the exploration of organizations' innovation activities. Much of the academic literature still views innovation as

defined within the organizational domain in which the management team has a stronger influence (Mendoza-Silva, 2021; Richardson and Kelly, 2024), whereas research on customers' perceptions of organizations' innovation efforts is lacking (Ghanbarpour and Gustafsson, 2022). This oversight is unfortunate because the customers are to whom public goods/service providers are ultimately accountable (Farwell et al., 2019; Witesman et al., 2021). Our findings specifically indicate that public goods/service providers, especially nonprofits, don't have to feel too pressured about "not being innovative" if they care about their customers.

In addition, this study empirically examines theoretical frameworks positing the quality signaling process, specifically, those suggesting that heterogeneous innovation types may relate to different organization performance outcomes (Do Adro et al., 2022) and customers' evaluations (Kunz et al., 2011). Our results imply that either type of innovation (technological innovation and managerial innovation) doesn't posit significant effects on customers' perception of the organizational quality or their contribution to the organization. Therefore, our research not only answers whether innovation influences customers' choice and their willingness to contribute but also explains the reason why innovation doesn't matter to customers. We further point out that organizational forms (nonprofit, for-profit) serve as a stronger signal of quality and thereby influence customers' purchase behavior. This finding contributes to the signaling theory by providing empirical evidence of the signal strengths and suggesting that innovativeness is a weak signal of organizational quality in a business context.

LIMITATIONS AND FUTURE DIRECTIONS

Finally, it is important to recognize that this study encountered several limitations. First, the hypothetical vignette design of healthcare organizations introduced some challenges. A significant number of participants ($N=294$) misunderstood the distinction between nonprofit and for-profit organizational forms. Although the study excluded participants who failed to correctly identify the organizational form we randomly assigned to them, the number of participants in the nonprofit condition ($N=456$) was substantially larger than in the for-profit condition ($N=245$). This imbalance raised the possibility that many participants may have assumed healthcare organizations are nonprofit by default.

Second, the hypothetical vignette design for innovation types had some shortcomings. Our manipulation check analysis revealed a statistically significant difference in participants' perceptions of innovation types, but only for the item related to technological innovation. This suggests that while most participants recognized technological innovation, they struggled to identify organizational innovation. Although the manipulation checks were technically successful, many participants might not fully understand the distinction between technological and organizational innovation.

Finally, through utilizing CloudResearch Prime Panels, the experiment recruited participants with internet access, who reported their intentions based on the provided hypothetical organizational information. However, these self-reported intentions may not accurately predict actual purchasing behavior. This limitation highlights the potential gap between participants' stated preferences in a controlled experimental setting and their real-world actions (Bechler, Tormala, and Rucker, 2021). Future studies could address this by incorporating field experiments or observational data to validate the findings and better understand the translation of intention into actual behavior.

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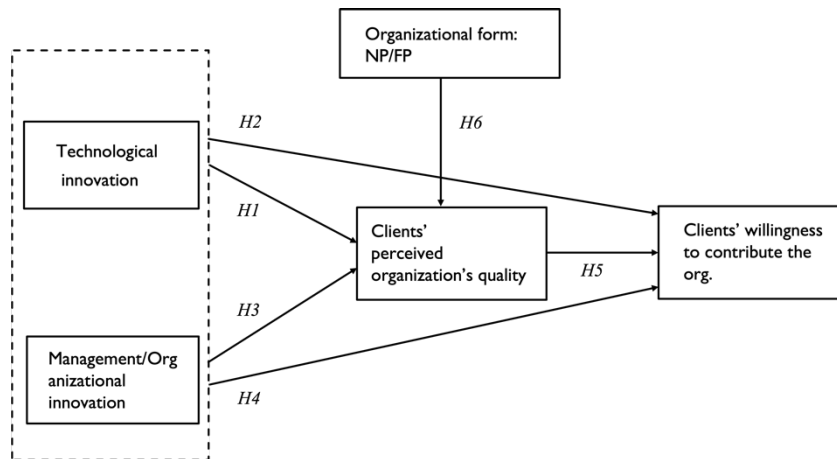


Figure 1. Conceptual framework.

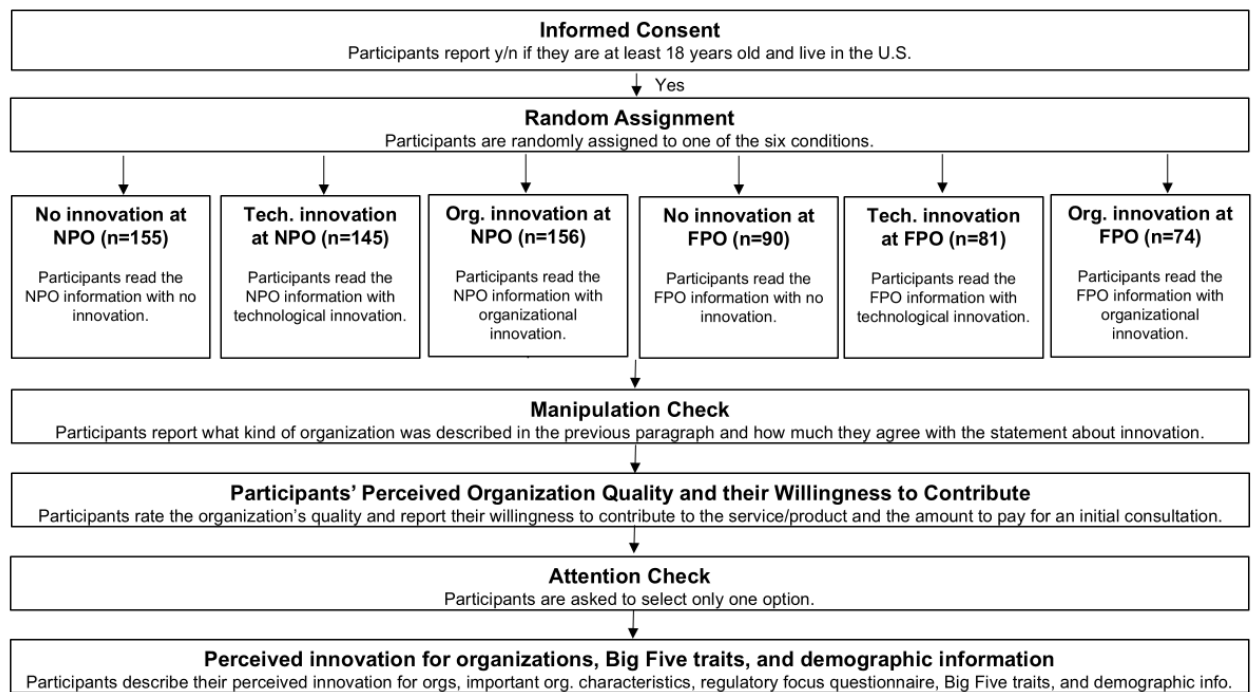


Figure 2. The experimental procedure.

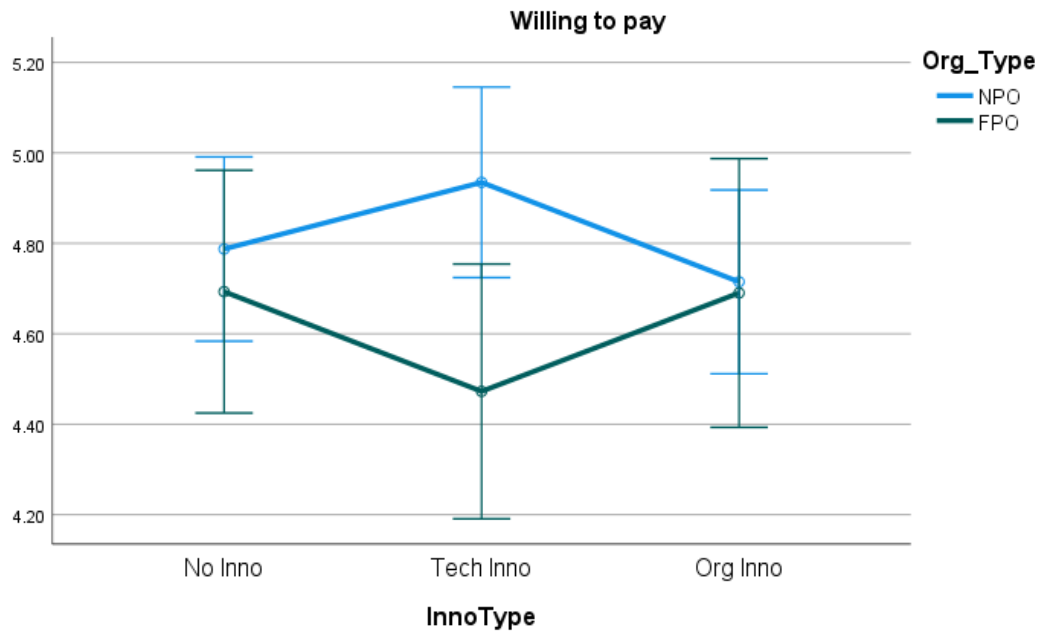


Figure 3. The main effect of innovation type on participants' willingness to pay

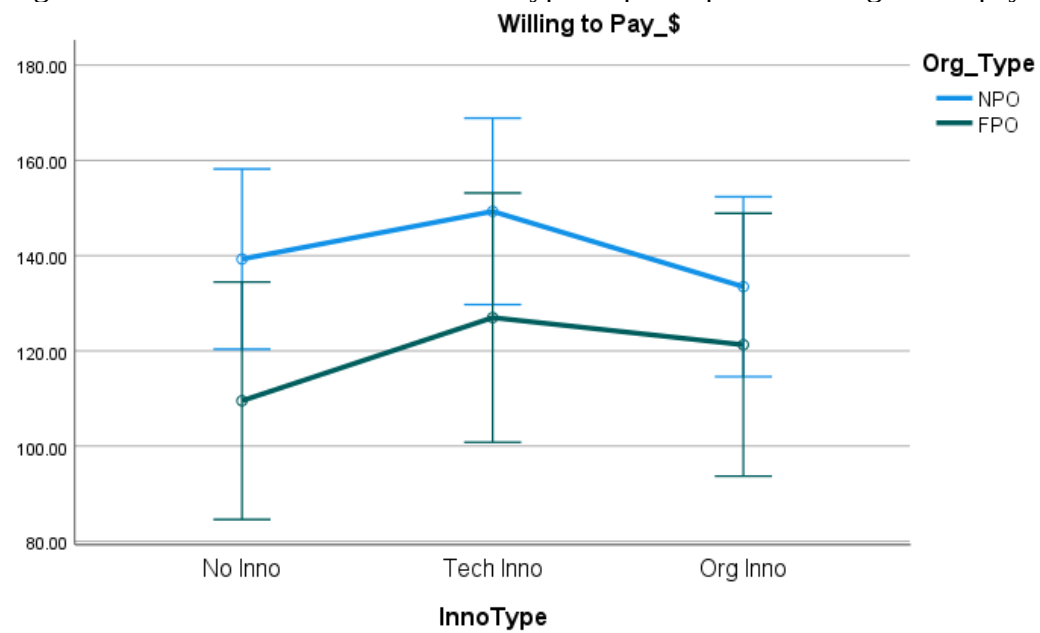


Figure 4. The main effect of innovation type on the amount participants' willing to pay

Table 1. Sample Characteristics (*N*=701)

Sample Characteristics		Frequency (%)
Gender	Male	274 (39.1%)
	Female	424 (60.5%)
	Other	3 (0.4%)
Age	18-20	12 (1.7%)
	21-30	61 (8.7%)
	31-40	124 (17.7%)
	41-50	138 (19.7%)
	51-60	133 (19.0%)
	61-70	139 (19.8%)
	71-80	73 (10.4%)
	81-90	20 (2.9%)
	91-100	1 (0.1%)
Race	Hispanic	43 (6.1%)
	White	565 (80.6%)
	Black or African American	104 (14.8%)
	American Indian or Alaska Native	19 (2.7%)
	Native Hawaiian or other Pacific Islander	2 (0.3%)
	East Asian	4 (0.6%)
	South Asian	4 (0.6%)
	Biracial or multiracial	7 (1.0%)
	Other	3 (0.4%)
Education	High school or under	226 (32.2%)
	Vocational school, associate's degree, or some college	249 (35.5%)
	Bachelor's degree	157 (22.4%)
	Master's degree or above	55 (7.8%)
	Other	14 (2.0%)
Income	Less than \$10,000	53 (7.6%)
	\$10,000-\$19,999	80 (11.4%)
	\$20,000-\$34,999	173 (24.7%)
	\$35,000-\$49,999	112 (16.0%)
	\$50,000-\$74,999	139 (19.8%)
	\$75,000-\$99,999	63 (9.0%)
	\$100,000 and above	81 (11.6%)

Table 2. Measures: constructs and indicators.

Constructs	Indicators
Willingness to contribute (Castaldo et al., 2009; Taylor and Todd, 1995; Tsai, Hung and Yang, 2020)	1. I am willing to buy this service/product from this organization. (1=strongly disagree, 7=strongly agree) 2. If you needed to purchase healthcare services, how much would you be willing to pay for an initial consultation from the ORGANIZATION you just read about? Please use the slider below to select a specific amount of money from \$0-\$500.
Organizational form	3. What kind of organization is described in the previous paragraph (nonprofit/ for-profit organization)?
Innovation type: Innovation, technological innovation, managerial innovation (Akter, Babu and Hossain, 2022; Jaskyte, 2020)	4. I think this service comes up with new and innovative ideas to improve health services. 5. I think this service often uses new technologies in health services. 6. The organization considerably changes the organization structure to facilitate innovation. 7. (1=strongly disagree, 7=strongly agree)
Perceived org. quality	8. Rate the quality of the ORGANIZATION you just read. 9. (1=low quality, 7=high quality)
Personal innovation (Thakur, Angriawan and Summey, 2016; Leonard-Barton and Deschamps, 1988)	10. I like to take chances. 11. I like to experiment with new ways of doing things. 12. New products are usually gimmicks. 13. (1=strongly disagree, 7=strongly agree)
Perceived innovation	14. Answer one open-ended question in their own words to describe why being innovative matters for an organization
Perceived important org. characteristics	15. Choose the most important organizational characteristics influencing their purchase choices from the following options: organization's size, organization's mission, organization's reputation, third-party certifications, and others.
Regulatory focus questionnaire (Higgins et al., 2001)	16. Compared to most people, are you typically unable to get what you want out of life? (1=never or seldom, 3=sometimes, 5=very often) 17. Growing up, would you ever "cross the line" by doing things that your parents would not tolerate? (1=never or seldom, 3=sometimes, 5=very often) 18. How often have you accomplished things that got you "psyched" to work even harder? (1=never or seldom, 3=a few times, 5=many times) 19. Did you get on your parents' nerves often when you were growing up? (1=never or seldom, 3=sometimes, 5=very often)

	20. How often did you obey rules and regulations that were established by your parents? (1=never or seldom, 3=sometimes, 5=always) 21. Growing up, did you ever act in ways that your parents thought were objectionable? (1=never or seldom, 3=sometimes, 5=very often) 22. Do you often do well at different things that you try? (1=never or seldom, 3=sometimes, 5=very often) 23. Not being careful enough has gotten me into trouble at times. (1=never or seldom, 3=sometimes, 5=very often) 24. When it comes to achieving things that are important to me, I find that I don't perform as well as I ideally would like to do. (1=never true, 3=sometimes true, 5=very often true) 25. I feel like I have made progress toward being successful in my life. (1=certainly false, 5 certainly true) 26. I have found very few hobbies or activities in my life that capture my interest or motivate me to put effort into them. (1=certainly false, 5 certainly true)
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Table 3. Descriptive Statistics (N=701)

Variables	Mean	SD	Min	Max
Dependent				
Willing to pay (rating)	4.74	1.32	1	7
Willing to pay (\$)	132.93	125.71	0	500
Perceived organizational quality	5.49	1.15	1	7
Covariates				
Personal innovation	3.15	0.74	1	5
Extraversion	2.97	1.00	1	5
Agreeableness	3.70	0.85	1	5
Openness	3.45	0.90	1	5
Conscientiousness	3.97	0.83	1	5
Neuroticism	2.76	1.07	1	5
Age	51.79	16.32	18	91

Note: This table does not include categorical variables, such as the independent variables (i.e., innovation type, organizational form), covariates (e.g., gender and income), and exploratory variables (e.g., race, regulatory focus, race, and education).

Table 4. Correlations between variables (N=701)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1.Willpay	-															
2.Willpay\$	.35**	-														
3.InnoType	-.01	-.01	-													
4.OrgType	-.09*	-.10**	-.04	-												
5.PerOrgQua	.60**	.26**	.03	-.09*	-											
6.PerInno	.22**	.29**	-.04	.00	.12**	-										
7.RFQ_pro	.10**	-.04	-.01	.07	.14**	.02	-									
8.RFQ_pre	-.90*	-.16**	.03	.03	.00	-.32**	.09*	-								
9.BFI_ext	.05	.07	.06	.00	.03	.16**	.31**	-.19	-							
10.BFI_agr	.08*	-.04	.08*	-.03	.19**	-.08*	.22**	.15**	.11**	-						
11.BFI_con	.14**	-.07	.05	-.01	.21**	-.13**	.46**	.24**	.16**	.29**	-					
12.BFI_Neu	-.06	-.01	-.04	-.05	-.09*	-.02	-.39**	-.12**	-.26**	-.24**	-.37**	-				
13.BFI_Ope	.04	-.05	.05	.02	.04	.07	.19**	-.04	.17**	.08*	.14**	.01	-			
14.Age	-.15**	-.27**	.04	.13**	.01	-.39	.13	.28**	.01	.18**	.26**	-.21**	.04	-		
15.Gender	-.03	-.03	.02	-.13**	.07	-.07	-.07	.09*	-.03	.02	-.04	.22**	.01	-.07	-	
16.Income	.09*	.14**	.14**	.10*	.06	.05	.23**	.07	.09*	.03	.17**	-.18**	-.04	.03	-.18**	-
17.Education	.04	.04	.03	.13**	.04	-.01	.20**	.18**	.01	-.04	.15**	-.07	.04	.08	-.09	.48**

Note. * $p < .05$; ** $p < .01$

Table 5. *Analysis of the Main Effects and Covariates*

	Original Model						Exploratory Model					
	Willingness to pay			Willingness to pay\$			Willingness to pay			Willingness to pay\$		
ANCOVA	<i>df</i>	<i>F</i>	η^2	<i>df</i>	<i>F</i>	η^2	<i>df</i>	<i>F</i>	η^2	<i>df</i>	<i>F</i>	η^2
Inno. Type	2	.06	.000	2	.461	.002	2	.18	.001	2	.60	.002
Org. Type	1	3.44 ⁺	.005	1	.028 ⁺	.007	1	4.63*	.007	1	5.09*	.007
Inno.*Org.	2	1.73	.005	2	.750	.001	2	1.40	.004	2	.38	.001
BFI_Extra	1	.03	.000	1	2.55	.004	1	1.08	.002	1	.84	.001
BFI_Agree	1	2.46	.004	1	.01	.000	1	3.36 ⁺	.005	1	.03	.000
BFI_Cons	1	11.81***	.017	1	1.40	.002	1	13.30***	.019	1	.01	.000
BFI_Neur	1	.10	.000	1	.70	.001	1	.01	.000	1	.22	.000
BFI_Open	1	.49	.001	1	.81	.001	1	.01	.000	1	1.39	.002
Age	1	25.98***	.036	1	46.23***	.063	1	7.89**	.011	1	10.81**	.016
Income	1	2.67	.004	1	14.58***	.021	1	.80	.001	1	12.03***	.017
Gender	1	.50	.001	1	.32	.000	1	.09	.000	1	.11	.000
Per. Inno.							1	21.10***	.030	1	19.98***	.028
RFQ_pro							1	.56	.001	1	1.99	.003
RFQ_pre							1	2.15	.003	1	2.53	.004
White							1	.75	.001	1	6.83**	.010
Education							1	.42	.001	1	.28	.000

Note. $p < .1^+$, $p < .05^*$, $p < .01^{**}$, $p < .001^{***}$

Appendix 1. The Pre-registration (Available at <https://aspredicted.org/dgvh-8rh6.pdf>)



Innovation Study (#190947)

Author(s)

This pre-registration is currently anonymous to enable blind peer-review.
It has 3 authors.

Pre-registered on: 09/19/2024 09:40 PM (PT)

1) Have any data been collected for this study already?

No, no data have been collected for this study yet.

2) What's the main question being asked or hypothesis being tested in this study?

- H1. A technological innovation signal will lead to a higher score in clients' perceived organization quality compared to a no innovation signal.
- H2. A technological innovation signal will lead to a higher clients' willingness to contribute to the organization compared to a no innovation signal.
- H3. A management/organizational innovation signal will lead to a higher score in clients' perceived organizational quality compared to a no innovation signal.
- H4. A management/organizational innovation signal will lead to a higher clients' willingness to contribute to the organization compared to a no innovation signal.
- H5. Clients' perceived organization quality mediates the relationship between an innovation signal and clients' willingness to contribute to the organization.
- H6. We will also explore whether the organizational form signal moderates the effect of an innovation signal on clients' willingness to contribute to the organization.
- H7. We will also explore whether technological innovation and organizational innovation lead to similar levels of clients' perceived organizational quality and willingness to contribute to the organization.

3) Describe the key dependent variable(s) specifying how they will be measured.

- 1) ☐ Clients' perceived organizational quality is the hypothesized mediator variable (see H5): Perceived service quality: Participants rate the quality of the ORGANIZATION they just read with an interval scale ranging from 1 (low quality) to 7 (high quality).
- 2) ☐ Clients' willingness to contribute: Participants report two responses. First, participants report the question about how much they agree or disagree with the following statement based on the information about the ORGANIZATION they just read about with an interval scale ranging from 1 (strongly disagree) to 7 (strongly agree). The item includes: "I am willing to buy this service/product from this organization." Second, participants are asked, "if you needed to purchase healthcare services, how much would you be willing to pay for an initial consultation from the ORGANIZATION you just read about? Please use the slider below to select a specific amount of money from \$0-\$500." Then participants insert a certain amount of money from \$0-\$500.

4) How many and which conditions will participants be assigned to?

Six conditions in a 3 (no vs. technological vs. management/organizational innovation) x 2 (nonprofit vs. for-profit organizations) factorial design.
Participants will be assigned to one of six conditions:

- (1) ☐ A no-innovative service/product offered by a nonprofit organization
- (2) ☐ A technologically innovative service/product offered by a nonprofit organization
- (3) ☐ A management/organizationally innovative service/product offered by a nonprofit organization
- (4) ☐ A no-innovative service/product offered by a for-profit organization
- (5) ☐ A technologically innovative service/product offered by a for-profit organization
- (6) ☐ A management/organizationally innovative service/product offered by a for-profit organization

5) Specify exactly which analyses you will conduct to examine the main question/hypothesis.

We will conduct a 3X2 ANCOVA with covariates (i.e., personality traits, and demographic information) to examine the effect of the two variables (innovation type, organization type) on clients' willingness to contribute to organizations, and whether this is mediated by perceived quality. We will use the Hayes Process macro model 8 to analyze the mediating effect. We will also conduct follow-up comparisons when the two variables (innovation type and organization type) significantly affect clients' willingness to contribute to organizations.

The list of the covariates:

(1) ☐ Big five traits:

- i. ☐ Participants who are more agreeable will be more willing to contribute to organizations regardless of the innovation type or organizational type.
- ii. ☐ Participants who are more open to new experiences will be more willing to contribute to organizations regardless of the innovation type or organizational type.
- iii. ☐ Participants who are more extroverted will be more willing to contribute to organizations regardless of the innovation type or organizational type.
- iv. ☐ Participants who are more conscientious will be more willing to contribute to organizations regardless of the innovation type or organizational type.
- v. ☐ Participants who are more emotionally stable will be more willing to contribute to organizations regardless of the innovation type or organizational type.
- (2) ☐ Age: Age may influence clients' willingness to contribute to organizations regardless of the innovation type or organizational type.
- (3) ☐ Gender: Gender may influence clients' willingness to contribute to organizations regardless of the innovation type or organizational type.

(4) ☐ Income: Income will influence clients' willingness to contribute to organizations regardless of the innovation type or organizational type. People with higher incomes will be more willing to contribute.

6) Describe exactly how outliers will be defined and handled, and your precise rule(s) for excluding observations.

We include a manipulation question of organization type and an attention check question in the survey. We will exclude participants who incorrectly answer the manipulation question or the attention check question.

(1) ☐ Manipulation question of organizational types:

What kind of organization was described in the previous paragraph? Please check what is true.

☐ Nonprofit organization

☐ For-profit organization

(2) Attention check question:

Instructions: Please select "Volunteering" for the answer: This item is for data verification purposes.

☐ Volunteering

☐ Mentoring

☐ Providing monetary contributions

☐ Joining charitable organizations

☐ Donating for tax purposes

☐ Other charitable activities

7) How many observations will be collected or what will determine sample size? No need to justify decision, but be precise about exactly how the number will be determined.

We plan to collect up to 967 participants from the CloudResearch Prime Panels according to the G power sample size analysis (N=967, please see below).

The Prime Panels allows researchers to use data quality redirect. The participants will be reminded of the data quality check question on the Prime Panels platform before taking the survey and if participants incorrectly answer the attention check question, they will be redirected to the end of the survey and not be paid by the researchers. Additionally, the participants who incorrectly answer the manipulation question will be rejected by the researchers and replaced by the other participants until the total number of participants reaches 967.

Effect size f: 0.1; α err prob: 0.05; Power (1- β err prob): 0.8; Numerator df: 2; Number of groups: 6; Number of covariates: 8; Total sample size: 967

8) Anything else you would like to pre-register? (e.g., secondary analyses, variables collected for exploratory purposes, unusual analyses planned?)

We will ask one manipulation check question about clients' perceived innovation type:

Participants indicate how much they agree or disagree with the following statement based on the information about the organization using a scale from 1 (strongly disagree) to 7 (strongly agree) after they read the assigned vignette. Three sample items include: "I think this service comes up with new and innovative ideas to improve health services." "I think this service often uses new technologies in health services." "The organization considerably changes the organization structure to facilitate innovation."

We will ask questions about the below variables for exploratory purposes.

(1) ☐ Personal innovation. Participants will indicate how much they agree or disagree with the following statements using a scale from using a scale from 1 (strongly disagree) to 7 (strongly agree). These three items include: "I like to take chances." "I like to experiment with new ways of doing things." "New products are usually gimmicks." (adapted from Thakur, Angriawan, & Summey, 2016; Leonard-Barton & Deschamps, 1988).

(2) ☐ Regulatory Focus Questionnaire (RFQ). Participants will respond to a set of 11 regulatory focus questions that ask them HOW FREQUENTLY specific events actually occur or have occurred in their lives using a scale from 1 to 5 (Higgins et al., 2001).

(3) ☐ Race: Race might influence clients' willingness to contribute to organizations regardless of the innovation type or organizational type.

(4) ☐ Education: Education might influence clients' willingness to contribute to organizations regardless of the innovation type or organizational type.

(5) ☐ Two open-ended questions: The qualitative answer will be analyzed to see if there's any influence on clients' willingness to contribute to organizations.

☐ Participants answer one open-ended question in their own words to describe why being innovative matters for an organization.

☐ Participants choose the most important organizational characteristics influencing your purchase choice from the following options:

1. ☐ Organization's size

2. ☐ Organization's mission

3. ☐ Organization's reputation

4. ☐ Third-party certifications

5. ☐ Other

Appendix 2. Six hypothetical vignettes



Med Solution, Inc.

501(c)3 Nonprofit Organization

168 Reviews 

Who We Are:

Med Solution, Inc. has been a registered 501(c)3 non-profit healthcare organization since 2015. As a nonprofit healthcare organization, its main goal is to fulfill its mission with no intention of making a profit.

Our Mission:

Med Solution strives to create a healthier future for all. Its mission is to provide exceptional, compassionate healthcare services that promote wellness, empower individuals, and advance health equity.

Our Approach:

The organization provides a comprehensive range of healthcare services aimed at addressing the diverse needs of individuals and communities. Some of the key services include primary care, mental health services, and emergency and urgent care.

The organizational structure of this healthcare organization is characterized by a hierarchical framework led by an executive leadership team overseeing departments such as clinical services, support services, and regional or facility-level management.



Med Solution, LLC.

For-profit Business

168 Reviews 

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Our Innovative Approach:

One of the cutting-edge techniques Med Solution uses is the Point-of-Care Decision Support Tool. This innovative new tool can provide real-time access to clinical guidelines, best practices, drug interaction alerts, and diagnostic support. The organization provides a comprehensive range of healthcare services aimed at addressing the diverse needs of individuals and communities. Some of the key services include primary care, mental health services, and emergency and urgent care.

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168 Reviews ♥ ♥ ♥ ♥ ♥

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Our Innovative Approach:

One of the cutting-edge approaches Med Solution has adopted to improve the organizational structure is the Collaborative Task Management System. This innovative new tool allows teams to assign tasks, track progress, and send updates in real-time. The organizational structure of this healthcare organization is characterized by a hierarchical framework led by an executive leadership team overseeing departments such as clinical services, support services, and regional or facility-level management.

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