

# Sustainability and Purchase Intentions for Disposable Medical Gloves: A TPB Based Conceptual Framework for Healthcare in Malaysia

Siti Haryani Mat Yusoff

School of Healthcare Management, KPJ Healthcare University, Kota Seriemas, Nilai, Negeri Sembilan

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## Abstract

The increased consumption of disposable glove in hospital industry post pandemic has led concern regarding sustainability and environment. To better understand the issue, it is crucial to investigate the factors influencing intention to purchase disposable gloves. The theory of planned behavior is proposed as a foundation for understanding the factors influencing the intention to purchase. This study's exploration of the proposed conceptual framework highlights the effect of key behavioral determinants, namely subjective norms, quality, sustainability concerns and attitude towards the use of disposable on the intention to purchase disposable medical gloves in private hospitals. The study is expected to offer valuable insights for future research and sustainable procurement practices. It also will provide better understanding for stakeholder in healthcare industries on achieving their sustainability goals.

**Keywords:** Disposable Gloves, Sustainability Concern, Healthcare, Quality

## Introduction

The COVID19 pandemic brought unprecedented disruptions to global healthcare systems, intensifying the need for strict infection control measures and catalyzing the widespread adoption of personal protective equipment (PPE), including disposable medical gloves. In the postpandemic era, private hospitals continue to rely on such protective supplies, but their purchasing decisions are now influenced by broader organizational, quality, and ethical considerations. According to Statista.com (2022), there are 355 hospitals in Malaysia, this includes private and government hospitals.

While traditional factors such as subjective norms and product quality have long been recognized as key drivers of procurement behavior, growing awareness of environmental sustainability has introduced new dynamics into the decisionmaking process. The increased consumption of singleuse medical products has raised concerns over their environmental impact, particularly in relation to waste management and sustainable procurement practices.

However, empirical research examining how these sustainability concerns shape the intention to purchase disposable medical gloves, particularly in private healthcare settings remains limited. Climate change poses the most significant hazard to global health and will impact the majority of communities in the next decades (der Klink & Demirel, 2025)

This conceptual paper seeks to fill this gap by extending the Theory of Planned Behavior (TPB) to explore how subjective norms, perceived quality, and sustainability concerns influence purchasing intention. Additionally, the study examines the mediating role of attitude in linking these factors to intention, providing a more holistic understanding of post COVID procurement behavior in private hospitals.

### *Underpinning Theory*

To address these objectives, this study applies the Theory of Planned Behavior (TPB), a well-established framework for understanding how attitudes, social pressures, and perceived control influence decision-making. This theory of planned behaviour proposes that individual behaviours are driven by behavioural intentions. An individual's full evaluation of a behavior, which includes both behavioral beliefs and judgments about the effects of the conduct, is referred to as the "attitude toward behavior" in theoretical terms. This comprehensive appraisal comprises both the behavior and the outcomes of the behavior. In contrast to the word "outcome evaluation," which refers to the assessment that is most often wanted for the consequences of a behavior, the term "behavior beliefs" refers to the outcomes that may be anticipated as a result of participating in a certain activity.

Examples of subjective norms include a person's normative ideas as well as their desire to comply to an established standard. The first is the perspective of the individual's significant other with respect to the individual's engagement in activities, and the second is the issue of whether or not people are willing to comply with the thoughts of others on their behavioral patterns. Both of these questions are important. In order to assess whether or not they have enough control over a subsequent action, individuals do an analysis of the resources that are accessible to them (Wang et al., 2020). A notion that is referred to by this word is the idea of perceived behavioral control. As stated by Ajzen (2005), the outcomes of the measurement of behavioral intentions have the potential to serve as a substitute for the actual behaviors that are carried out (Ajzen, 2005; Liao, 2022).

The level of significance of the relationship between perceived behavioral control and intention may also vary depending on the circumstances and behaviors (Armitage & Conner, 2001). This is because the Theory of Planned Behavior (TPB) demonstrated that the expectedness of its constructs varies depending on the circumstances and behaviors. As a result of this, the level of significance of the relationship between the two may also vary depending on the circumstances and behaviors. A person's behavior may be influenced by a variety of factors, some of which are internal to the person (such as skills, knowledge, lack of talents, willpower, and compulsion), while others are external to the person (such as time, opportunity, situation, and dependent on others) (Ajzen, 1991).

The Theory of Planned Behavior (TPB) has long served as a foundational model for predicting behavioral intentions through the core constructs of attitude, subjective norm, and perceived behavioral control (Ajzen, 1991). This also been mentioned by (Yuriev et al., 2020) However,

as behavioral research has progressed—particularly in environmental, healthcare, and sustainable consumption contexts—scholars have increasingly called for contextual adaptation of TPB by integrating external variables that better reflect real world complexities (Fielding et al, 2008).

In the case of post pandemic healthcare procurement, sustainability concern reflects a growing societal and institutional pressure to adopt environmentally responsible practices, particularly in response to the excessive use and disposal of single use personal protective equipment (PPE) such as gloves (Mousavi & Dehestani, 2023). Thus, the inclusion of sustainability concern as an additional independent variable enhances the predictive power of TPB by addressing contemporary ethical and ecological considerations that were not emphasized in its original formulation.

This conceptual paper seeks to fill that gap by examining the factors that shape the intention to purchase disposable medical gloves in private hospitals after the COVID19 pandemic. The specific objectives are as follows:

1. To examine the effect of subjective norm, quality, and sustainability concerns on the attitude towards the use of disposable gloves.
2. To examine the effect of the attitude towards the use of disposable gloves towards intention to purchase disposable gloves.

### **Literature Review**

Although previous studies have examined the role of gloves in preventing disease transmission and compliance with safety protocols among clinical staff, there remains limited understanding of the behavioral factors that influence purchasing decisions at the organizational level.(Cordeiro et al., 2022) .One research area in need of further study is the use of disposable and singleuse materials in healthcare delivery. Campion et al., (2015).This gap is especially significant given the financial, operational, and environmental costs associated with ongoing glove consumption. As healthcare systems move toward longterm sustainability, it becomes crucial to explore what motivates hospitals to continue procuring these supplies.

### *Subjective Norms*

A person's impressions of the social pressures or expectations that are associated with the purchasing of disposal gloves are referred to as subjective norms. According to Ajzen's Theory of Planned Behaviour (2004), subjective standards are the ones that are thought to have an influence on the intentions that people have toward their behavior.

Subjective norms are based on a person's viewpoint of something being proper or not appropriate in accordance with the incentive or punishment that may be attained from carrying out such an activity. Subjective norms are sometimes referred to as "personal norms." A person's judgment of another person is the basis for the formation of subjective norms. According to Sandve and Øgaard (2014), subjective norms are a structure that is regularly used as a forerunner in the process of decisionmaking. people are more likely to take action if they perceive that their role models believe that they should take action (Schepers and Wetzels, 2017). This is because people are more likely to believe that their role models support them in taking action.

As stated by Turner et al. (2022), there has been a dearth of research carried out on the factors that motivate a person to make a purchase or choices about a purchase that is made online. According to Schepers and Wetzels (2017), subjective norms require that the behavioral intention that consumers have originates from the perceived social pressure that they are under. They have a predisposition to behave in a specific manner if their peers think that they should behave in a certain manner. Individuals who believe that subjective standards are relevant have this inclination.

According to Fielding et al. (2008), the belief that significant others (such as friends, family, or colleagues) anticipate or support the use of disposal gloves may have a positive influence on a person's desire to acquire disposal gloves. This is the case regardless of whether or not the individual believes that significant others do so. According to Fielding et al. (2008), however, negative subjective norms, such as the social stigma that is associated with the use of gloves, may inhibit the intention to buy as a result of the stigma.

The link between subjective standards and attitudes often includes ethics, morality, and the benefits that people obtain. This is an additional element that should be taken into consideration. According to Chang (1998), if there is a relationship between subjective norms and other original components, then such an association could not be ignored. This conclusion was reached after the researcher arrived at the conclusion. A statement to this effect was included in the researcher's conclusion. Research that was carried out on subjective norms shown that these latter are an effective interpreter of behavior in circumstances in which the wellbeing of a different person is touched by the actions of an individual (Sheeran & Taylor, 1999; Kok & Godin, 1996). In the framework of the decisionmaking process that a single person goes through regarding a preference, Rimal and Lapinski (2015) state that the effect of subjective norms is almost nonexistent.

### *Quality*

According to Zeithaml (1988), buyers' views of the quality of a product have a major impact on their intentions to make a purchase. This is true across a broad variety of product categories. The strength of the material, its durability, the amount of comfort it gives, and the general utility of the gloves in terms of providing protection are some of the characteristics that are considered to be quality perceptions when it comes to disposable gloves. According to Oreffice & Quintanna-Domeque (2021), customers are more likely to buy gloves that are seen to be of high quality. This is due to the fact that items of this level provide increased reliability and utility. The impressions of quality that consumers have of disposable gloves are a significant factor in shaping their attitudes about these gloves.

The findings of Chen et al. (1999) indicate that when people have pleasant experiences with high quality gloves, their attitudes change, which in turn builds trust and confidence in the product. In contrast, gloves of low quality may occasionally provoke unpleasant feelings, which can lead to a lack of trust and a reluctance to make a purchase from the consumer. Therefore, it is vital to maintain high standards of quality in order to build favorable attitudes among customers and to drive their intentions to make purchases. Quality is a crucial component that adds to the competitive advantage that manufacturers and brands operating in the disposable glove sector have over their competitors.

According to the results of a research that was carried out by Oreffice & Quintana Domeque (2021), consumers are willing to pay a greater price for gloves because they have the impression that the gloves are of a better quality. In order to distinguish themselves from their rivals and attract clients who are picky and put a high value on reliability and performance, firms that place an emphasis on quality assurance and product innovation may be able to differentiate themselves from their competitors. In areas such as healthcare and food processing, there is a direct connection between the quality of disposable gloves and the safety of the people who use them. According to Xu et al. (2020), gloves that are of a high quality and fulfill high standards reduce the likelihood of contamination and the spread of diseases. As a result of this, healthcare facilities, food enterprises, and other industries put a significant amount of importance on the purchase of gloves of an exceptionally high quality. This is done in order to fulfill sanitary regulations and safeguard the health of the general public. There are many different industries that place a significant emphasis on the use of disposable gloves. These industries include the medical profession, the food processing business, and the sanitation industry. The buyers' intentions to get these gloves are greatly affected by the quality that they think these gloves to hold.

There is a significant correlation between the individuals' perceptions of the quality of disposal gloves and their intentions to put money into purchasing them. According to Oreffice & Quintana Domeque (2021), customers are more likely to acquire gloves of a high quality that fulfill the criterion of being effective in providing protection and durability. As a result, consumers are more likely to get gloves that match these requirements. The idea of perceived quality encompasses a number of different characteristics, including the durability of the material, the level of comfort it provides, and its resistance to tearing. According to the findings of a study that was carried out by Chen et al. (1999), having a favorable experience while wearing gloves of a high quality may boost attitudes towards the product and raise the chance of completing a purchase. On the other hand, customers may be dissuaded from buying gloves of low quality due to the idea that they are either ineffective or of poor quality (Oreffice & Quintana Domeque , 2021). This perception may be a factor in the consumer's decision to purchase gloves.

#### *Attitude towards the Use of Disposable Gloves*

As it comes to determining whether or not consumers intend to acquire disposal gloves, attitudes concerning these gloves have a significant effect. Two researchers named Ajzen and Fishbein (1980) carried out research that was included into their Theory of Reasoned Action. The results of their study suggest that attitudes on a certain activity have a significant impact on the intentions to participate in that activity. According to the results of Handayani et al. (2020), the environment that surrounds a person has a large degree of influence on the way in which people's attitudes change about the consumption or purchase of utilities. In most cases, this is ascribed to the character of human beings and their propensity to deal with a variety of circumstances in order to be able to go on with their lives and continue living their usual lives. In situations when they see other people engaging in the same behavior, individuals have a propensity to alter their perspective on the subject matter. Individuals have an inclination to behave in this manner by nature.

The findings of Cordeiro et al. (2022) indicate that the attitudes, intentions, and behaviors of dental professionals with regard to the utilization of medical gloves are contingent upon the

capacity of the type of medical gloves to offer protection first and foremost, followed by the level of comfort that can be offered to the individual who is wearing the gloves. All of these factors are interrelated. A consumer's attitude is a reflection of the connection that exists between that customer and the thing that they are purchasing, according to Robertson's (2017) opinion. The definition of the object, on the other hand, is not easy to pin down. This is due to the fact that academics Solomon, Bamossy, and Askegaard (2002) determined that anything that has the potential to impact an attitude toward something is deemed to be the object of attitude. A thorough review of an item that has the ability to impact one's sentiments, knowledge, or conduct in connection to the real object is what Ajzen and Fishbein (2018) and Rosenberg and Hoyland (1960) mean when they say that attitude may be characterized as a meticulous evaluation of an item.

According to the results of a research that was carried out by Chen et al. (1999), the quality of the product as well as the price of the product have a major influence on the attitudes and intentions of consumers with respect to the use of hygiene products. In most cases, people are not convinced to use items of poor quality because they are under the impression that if the quality is low, then the product would not be able to carry out the function that is expected of it. The price, on the other hand, was discovered to be a significant factor as well. This is owing to the fact that hygiene and medical goods are essentials rather than luxury items, and hence their pricing have to be affordably priced.

Individuals who have good attitudes on disposal gloves, such as the idea that they are hygienic, handy, and essential for certain jobs, are more likely to have the purpose to purchase them, as stated by Ajzen (2019). Individuals who hold these views are more likely to plan to get disposal gloves. Based on the findings of Chen et al. (1999), it is possible that negative attitudes, such as the opinion that they are unnecessary or wasteful, might have the reverse impact and diminish the desire to acquire goods.

### *Sustainability Concern*

The concern for sustainability has gained prominence in purchasing decisions, particularly within the healthcare sector, where the utilization of disposable medical gloves has surged notably during and during the COVID19 epidemic.

The environmental impact of singleuse personal protective equipment (PPE), including gloves, has raised awareness of issues such as excessive waste, pollution, and resource depletion. As healthcare institutions are increasingly pressured by stakeholders—such as regulatory bodies, patients, and suppliers—to adopt more environmentally responsible practices, sustainability is now viewed not just as an ethical obligation but as a strategic purchasing criterion.(Khatter, 2023)

Previous studies in the hospitality sector, for instance, have shown that environmental sustainability efforts, such as reducing waste and energy use, can enhance organizational image, stakeholder trust, and customer satisfaction (Khatter, 2023). Translating these insights to the healthcare setting, procurement officers and decisionmakers may consider the environmental footprint of disposable gloves—such as biodegradable materials, reduced packaging, or Eco certifications—as part of their procurement criteria. Therefore, sustainability concern is positioned in this study as an independent variable that may directly

influence the intention to purchase disposable medical gloves, especially in a context where environmental consciousness and green procurement are gaining importance in institutional decision making.

### *Intention to Purchase Disposable Gloves*

In the Theory of Planned Behavior, intention reflects a person's motivational readiness to perform a behavior (Ajzen, 2015). It bridges attitudes, social influence, and perceived control with actual actions. Intention can be seen in a person's actions. On the other hand, it is also possible to define it as the readiness of consumers to purchase and make use of the product (Ercan & Matt, 2008; Sousa, Nobre, & Farhangmehr, 2018). According to Ajzen and Fishbein (1975), the actual conduct of a person is reliant on his or her purpose, or the intention to be seen as an essential requirement for action. A consumer's decisionmaking process may be broken down into five steps, according to Kotler and Armstrong (2019): (1) determining their requirements, (2) looking for information, (3) assessing their alternatives, (4) making a purchase decision, and (5) determining how they will use the product once it has been purchased.

When a person has a certain goal, that person's actual behavior is determined by that intention. When there is a significant amount of demand for a product or service, consumers will look for information, and they will also consider analyzing that information and picking the appropriate procurement options. Following the completion of this procedure, people will subsequently develop the intention to buy the product or service that is being considered. The intention that is obtained from the definition of Fishbein and Aizen (2017) is regarded to be the weak power of the intention associated to the buying behavior of customers. This is because the definition of intention is taken from the definition of intention.

As a consequence of this, the intention serves as a useful guide for the purchase behavior of consumers (Venkatesh, Morris, Davis, & Davis, 2003). Obtaining a grasp of the customers' intents is one of the most accurate strategies for anticipating the choices that they will make in the future. This is because the wider the aim is in general, the larger the possibility to make judgments on purchases and uses, as well as the features of fulfillment. This is the reason why this is the case. It is not feasible to foresee the emergence of situations that are unanticipated. Ajzen and Fishbein (2017) state that while attempting to estimate future demand, it is important to take into account the intentions of both consumers and businesses. This is based on a wide range of distinct corporate philosophical frameworks.

Managers are able to determine whether or not the idea merits further development by collecting information about purchase intentions. According to Montano and Kasprzyk (2015), the relevance of intentions arises from the fact that intentions are considered to be the most essential component in shaping actual behavior. As a consequence of this, the research that they do is of the utmost significance for the attainment of success by any internet company. Within the scope of this investigation, it is recommended that the desire to make a purchase will serve as the major variable that will be investigated.

According to Armitage and Conner (2018), the construct is used at the prepurchase stage and is intended to capture the motivational components that drive customer behavior throughout the process. This is stated in the publication. To effectively anticipate the behavior of

customers, it is essential to have a grasp of the attitudes, evaluations, and internal aspects that finally result in the intention to make a purchase, as stated by Fishbein and Ajzen (2017). This is because it is the only way to accurately predict the behavior of consumers.

The decision of whether or not a person wants to buy disposable gloves is influenced by a variety of variables, including perceived quality, attitudes, subjective standards, and perceived behavioral control. Every one of these aspects plays a part in the decisionmaking process. Managers may use purchase intentions to assess the deployment of a new distribution channel, which can help them determine if the concept deserves further development and decide which geographic markets and customer groups to target via the channel (Morwitz et al., 2007). Purchase intentions can also be used to determine which customer groups and geographic markets to target through the channel.

A distinction between buy desire and purchase intention is made by Bagozzi and Burnkrant (2019), who state that the phrase "purchase intention" The term "purchase intention" refers to the consumers' subjective propensity to pay for the goods or services that they expect to obtain in the future. According to the results of our investigation, the term "purchase intention" describes the activities that consumers perform on purpose in order to choose what products or services they would acquire. According to Spears and Singh (2014), this intention might be activated when the image or attitude that is exhibited to customers is in agreement with the expectations that they have. It is possible that the intention to buy is a good predictor of the actual behavior of purchasing.

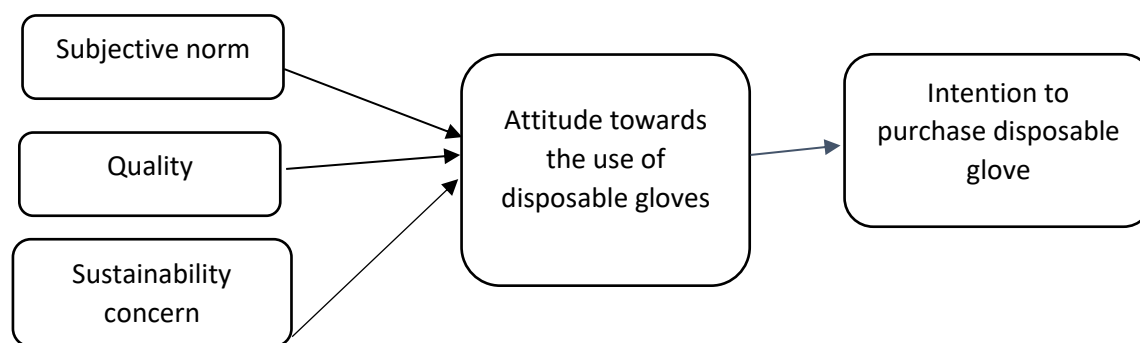
## **Discussion**

This study proposes that subjective norm, quality, and sustainability concern influence intention to purchase gloves, with attitude mediating these effects. The unprecedented demand for PPE during the pandemic led to massive production and disposal of single use items, including gloves—contributing to increased medical waste and carbon emissions ((Mousavi & Dehestani, 2023). As hospitals reassess their procurement policies post pandemic, sustainability has become a critical lens through which purchasing decisions must be viewed. Understanding behavioral factors that influence glove procurement can help align healthcare practices with broader goals of environmental sustainability and resource stewardship.

While this paper primarily explores behavioral intentions toward glove purchasing, it also acknowledges the growing pressure on healthcare institutions to adopt environmentally sustainable practices. Therefore, this study will discuss how perceptions of sustainability may implicitly influence procurement decisions and how hospitals can balance infection control with environmental responsibility.

The findings from this study have practical implications not only for improving health outcomes but also for advancing sustainable procurement strategies. By identifying what drives glove purchasing behavior, private hospitals can implement targeted interventions that optimize glove usage—potentially incorporating reusable alternatives, waste reduction strategies, or supplier selection criteria that emphasize ecofriendly production.

### Conceptual Framework



### Conclusion

The COVID19 pandemic has intensified the demand for disposable medical gloves, particularly in private healthcare settings. As the healthcare sector transitions into the postpandemic era, there is a growing need to align purchasing decisions with sustainability principles, especially in light of environmental concerns arising from the excessive use of single-use medical products. This paper proposes an extended Theory of Planned Behavior (TPB) model that integrates sustainability concern as an additional predictor to better understand healthcare professionals' intention to procure disposable medical gloves.

Future empirical studies can test this proposed model to validate the theoretical assumptions and examine the moderating roles of institutional policies, green procurement regulations, and postpandemic awareness. Ultimately, this framework contributes to the advancement of sustainable healthcare practices by encouraging more responsible and informed purchasing behaviors within the medical supply chain.

### *Theoretical and Contextual Contributions*

This conceptual paper offers both theoretical and contextual contributions by extending the Theory of Planned Behavior (TPB) through the integration of sustainability concern as an additional predictor of purchasing intentions of disposable medical gloves in healthcare industry. Theoretically, it advances TPB by contextualizing the model to address contemporary environmental and ethical considerations that are increasingly relevant in post-pandemic healthcare procurement decisions, particularly regarding single-use medical supplies like disposable gloves. Contextually, the paper provides a novel framework for understanding the behavioral drivers of glove purchasing intentions within private hospitals in Malaysia, addressing a gap in existing literature by linking subjective norms, perceived quality, and sustainability concerns with procurement practices. The model proposed has practical implications for guiding sustainable procurement policies and supporting the healthcare sector's efforts to balance infection control with environmental responsibility.

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