

Predicting university faculties switching intention to bioplastic products in an emerging economy: A step toward sustainable future

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Abstract - This study is undertaken to examine the university faculties switching intention to bioplastic (SIB) products with the help of the Theory of Reasoned Action (TRA) along with three additional constructs namely Green Knowledge (GK), Environmental Concern (EC), and Person's Innovativeness (PI). Importantly, this study is quantitative in nature whereas a structured questionnaire was placed to collect the data from 218 survey respondents. SPSS 25 had been used to analyze the reliability of the constructs, correlation, and regression to find out the direct effect of predictors on university faculties switching intention to bioplastic products. This study reveals that attitudes towards bioplastic, green knowledge, environmental concern, and a person's innovativeness have statistically significant relationships with the switching intention to use bioplastic products. Surprisingly, in this study a person's innovativeness had found the strongest predictor among all the studied constructs. This study contributes theoretically to the robustness of the Theory of Reasoned Action (TRA) with Green Knowledge (GK), Environmental Concern (EC), and Person's Innovativeness (PI) in academic perspectives. Moreover, the outputs of this study help the bioplastic manufacturing firms to produce bioplastic products in bulk in the future and uptake the market of bioplastic products in Bangladesh

Keywords: sustainable future; university faculties; theory of reasoned action; person's innovativeness; switching intention

1. Introduction

1.1. Background of the Study

A sustainable future is one of the desired dreams of civil citizens throughout the world over the last decade. Focusing on sustainable consumption and production on the modern edge is the prime concern for emerging economies like Bangladesh. Undoubtedly, the whole world is facing one of the alarming issues namely plastic pollution & the waste management of all plastic commodities (Oberti & Paciello, 2022; Klein et al., 2019; and Jones et al., 2013). Moreover, plastic plays an inevitable role in our day-to-day life and we are surrounded by various plastic items like bags, straws, containers, cups, cutlery, medical equipment furniture, utensils, toys, electronic devices, and automotive parts (Liu et al., 2021; Koelmans et al., 2019; McGoran et al., 2018; Maddah, 2016 and Jambeck et al., 2015). The growing acceptance of plastic products all over the world is due to versatility, re-usability, convenience, durability, and affordability (Mekonnen et al., 2013). Contrary to this, plastic has numerous adverse impacts on human health, wildlife, landfill, the ocean, the environment and the ecosystem (Spierling et al., 2018; Sanyang et al., 2016; Eriksen et al., 2014 and Mülhaupt, 2013). It is to be noted that the production of plastic on our planet is growing over the last three decades and the propensity to increase up to 70% or more (Ritchie & Roser, 2018). Furthermore, plastic waste on the planet will significantly increase by 2050 leading to 12 billion tons if any corrective measures are not taken (Kaza et al., 2018; Parker, 2018).

Moreover, environmental sustainability is considered one of the prior things in the 21st century for the well-being of the planet as well as other animals (Fleming et al., 2019 and Arora, 2018). It is high time to think, about how to resolve the plastic pollution issue and safeguard our beloved planet from the adverse effects of plastic pollution and researchers have suggested that bioplastics may be considered as an alternative solution to the problem for the sustainable environment (Alabi et al., 2019; Emadian et al., 2017; Papong et al., 2014; Álvarez-Chávez et al., 2012; Karana, 2012; Song et al., 2009). Researchers have defined bioplastics in numerous ways but all of them are focusing on one thing a type of plastic derived from renewable biological sources, such as cornstarch, cellulose, sugarcane, vegetable fats and oils (Álvarez-Chávez et al., 2012; Karana, 2012 and Song et al., 2009). Over the last decade, the bioplastics issue is considered a top topic throughout the world among governments, decision-makers, academics, researchers, industry players, consumers and general folks (Russo et al., 2019; Iles & Martin, 2013). As a result, the bio-based products industry has been growing rapidly throughout the world. Additionally, approximately 2.23 million tonnes of bioplastics will be produced globally in 2022 and it is assumed that the global production of bioplastics will reach 6.3 million tones in 2027 (European Bioplastics, 2022).

On the other hand, the bio-based products market is still infant and consumers are mostly unaware of bioplastic products & their benefits (Iles & Martin, 2013; Yates & Barlow, 2013). Due to the absence of any visible attribute differences between plastic and bioplastic products, it's quite difficult for consumers to understand both categories of plastic frequently. Thus why, bioplastics have become one of the emerging subject fields to be studied by academics and researchers throughout the world. Moreover, consumers' bioplastics purchase intention or reaction towards its usage is considered an important issue for doing research nowadays. More importantly, purchasing intention of the bioplastic products of consumers can be affected by numerous factors (Salsabila & Hartono, 2023; Nguyen et al., 2019; Stahl, 2021; Klein et al., 2019).

However, most of the prior studies have focused on consumers' bioplastic acceptance intention, consumers' perception towards bioplastic, consumers' bioplastic choice behavior, and willingness to purchase bioplastic (Salsabila & Hartono, 2023; Filho et al., 2022; Gao & Shao, 2022; Gutierrez Tano et al., 2022; Notaro et al., 2022; Morone et al., 2021; Yusiana et al., 2021; Hengboriboon et al., 2020; Klein et al., 2020; Dilkes-Hoffman et al., 2019; Pierce, 2018; Lynch et al., 2017; Rumm, 2016; Kainz, 2016; and Kurka, 2012). So, there is an opportunity to explore what factors lead consumers to switch from plastic to bioplastic product usage in an emerging economy like Bangladesh. This study is undertaken to uncover the hidden facts of the bioplastic products usage intention of the university academics in Bangladesh based on the *Theory of Reasoned Action* along with certain factors Green Knowledge, Environmental concern and Person's Innovativeness.

1.2 Review of Related Literature

Nowadays, consumers are more sophisticated & conscious about the environment, society, and their health when they purchase or consume any products or services which leads them towards bioplastic product usage (Mostafa, 2007). Consumers' behavior is shifting frequently towards green or biodegradable products due to the deterioration of the natural environment like air pollution, land pollution, climate change and natural disasters (Zaremohzzabieh et al., 2021). According to Xie et al., (2019), bioplastics can be the best alternative for emerging economies and environmental sustainability. Additionally, bioplastic products are such new green innovations and they are mainly biodegradable or easily decomposable in the environment (Jenkins et al., 2016).

As of late, consumers switching intention toward bioplastic products throughout the world has gaining attention among researchers, academics, and practitioners as an emerging subject issue to be studied (Moshood et al., 2022; Gao et al., 2022; Notaro et al., 2022; Scarpi et al., 2021; Prothero et al., 2011). Moreover, consumers switching intention toward bioplastic products consumption in the 21st century may be affected by attitude (Shimul et al., 2022; Roh et al., 2022; Hengboriboon et al., 2020; Thuy & Nguyet, 2019; Prakash & Pathak, 2017), subjective norms (Roh et al., 2022; Shimul et al., 2022; Hengboriboon et al., 2020; Thuy & Nguyet, 2019; Onwezen et al., 2017), environmental concern (Moslehpour et al., 2023; Hengboriboon et al., 2020; Heo & Muralidharan, 2019; Prakash & Pathak, 2017), green knowledge (Roh et al., 2022; Yusiana et al., 2021; Ahmed et al., 2020; Moslehpour et al., 2023), perceived quality (Wasaya et al., 2021; Zulfanizy & Wahyono, 2019; Gil & Jacob, 2018; Ariffin et

al., 2016), perceived risk (Tarabieh, 2021; Zulfanizy & Wahyono, 2019; Nguyen et al., 2019; Chen et al., 2012), perceived value (Roh et al., 2022; Confente et al., 2020; Zulfanizy & Wahyono, 2019; De Medeiros et al., 2016; Rizwan et al., 2013; Chen et al., 2012), perceived trust (Charviandi, 2023; Roh et al., 2022; Wasaya et al., 2021).

1.3 Theoretical Framework and Hypothesis Development

Theory of Reasoned Action (TRA) is one of the powerful social psychology theories which helps to predict an individual's behavior or intention (Ajzen & Fishbein, 1977). In this theory, there are two constructs namely attitude and subjective norms. The theory of reasoned action is denoted as $(BI=AT+SN)$ which means an individual's behavioral intention can be predicted through his or her positive or negative attitude and subjective norms. An individual's attitude is a positive or negative evaluation or action or reaction towards a specific thing (Ajzen, 1991). Subjective norms can be defined as 'perceived social pressure to perform or not perform the behavior' (Ajzen, 1991).

Moreover, the subjective norm is defined as the opinions of near and dear ones (friends, family members, relatives, peer groups, colleagues etc.) to an individual and which is highly influenced by an individual's decision-making (Park, 2000). Notably, it was found that an individual's behavior is mostly stimulated by those people who are important or significant to him or her (Conner & Armitage, 1998). Behavioral intention is a mental state in which an individual is more likely to show indications of readiness to perform a certain behavior in a given situation. On the other hand, it can be said that an individual's behavioral intention is the immediate antecedent of his or her behavior (Ajzen, 2002). Furthermore, this study includes three additional constructs namely Green Knowledge, Environmental Concern, and Person's Innovativeness in determining university faculties switching intention to bioplastic products in an emerging economy.

An individual's attitude plays an inevitable role when he or she purchases something for his or her personal or family consumption. An individual's attitude has a positive and significant impact on his or her purchase intention (Ajzen & Fishbein, 1977). Consumers with positive attitudes towards bioplastic products have a higher switching intention to buy bioplastic products (Cheah & Phau, 2011). Moreover, previous studies have shown that consumer attitude towards bioplastic products affects consumers switching intention to buy bioplastic products or purchase decision (Moslehpour et al., 2023; Gupta & Singh, 2021; Stahl et al., 2021; Klein et al., 2019; Scherer et al., 2017). Hence, consumers with a more positive attitude towards bioplastic product consumption will have a higher intention to switch from plastic to bioplastic products. Therefore, the following hypothesis can be hypothesized:

H₁: Consumers with higher positive attitude leads to higher switching intention to bioplastic products.

Subjective norm can be defined as a perceived social influence/pressure that an individual obtains from family members, friends, peers, colleagues, and near & dear ones while performing a behavior (Paul et al., 2016 and Ajzen, 1991). An individual's subjective norm towards bioplastic products affects an individual's purchase intention for bioplastic products (Klein et al., 2019). It is noted that people who are important or significant to an individual always affect purchasing decisions, especially for bioplastic products. Moreover, a lot of prior studies have found there is a positive and significant relationship between subjective norm and switching intention towards bio-based products (Shimul, et al., 2021; Paul et al., 2016; Kim & Chung, 2011; Kun-Shan & Yi-Man, 2011, Mostafa, 2006). Contrary to a few of the previous studies have found that there is an insignificant relationship between subjective norm and switching intention towards green or eco-friendly products (Pop et al., 2020; Uddin & Khan, 2018; Ghazali et al., 2017; Nguyen et al., 2016). Hence, the following hypothesis can be assumed:

H₂: Consumers with higher subjective norm leads to higher switching intention to bioplastic products

Green knowledge refers such knowledge of individual's that creates, evaluates, develops, applies to better understand the environment problems or concerning issues and anticipates them in the most significant manner (Rustam et al., 2020; Jaiswal & Kant, 2018; Lee, 2011; D'souza et al., 2003). Moreover, green knowledge stimulates individuals and organizations to make a choice to use bioplastic products through their innovative capabilities (Chamba-Rueda et al., 2021). Green knowledge may be considered as an intangible asset and consumers with more green knowledge lead them towards green performance (Wang et al., 2020). Green knowledge also denotes how much people are aware of the environment with their responsibilities for the development of environmental aspects or maximizing

the Ecosystem balanced (Ahmad et al., 2015; Fryxell & Lo, 2003). Moreover, prior studies have found a positive and significant relationship between green knowledge and consumers switching intention towards bioplastic products consumption (Shimul et al., 2022; Hengboriboon et al., 2020; Yadav & Pathak, 2016; Moslehpour et al., 2023). Therefore, the following hypothesis can be made:

H₃: Consumers with higher green knowledge lead to higher switching intention to bioplastic products.

Over the past few decades, environmental issues and concerns have attained importance. Environmental concern indicates the degree to which people are aware of problems regarding the environment and support efforts to solve them or indicate the willingness to contribute personally to their solution (Ahmad et al., 2015). Consumers' environmental concerns are seen to increase, and it could change the consumption behaviour of people to buy more eco-friendly goods and services (Kilbourne & Pickett, 2008). Recently, purchasing intention towards bioplastic products has gained global attention due to their extensive use and high environmental issues (Islam et al., 2021; Kamarudin et al., 2021). Moreover, a few previous studies have found a positive and significant relationship between environmental concern and consumers switching intentions towards bioplastic products consumption (Moslehpour et al., 2023; Hengboriboon et al., 2020; Kim & Choi, 2005; Chan & Lau, 2000). Hence, the following hypothesis can be drawn:

H₄: Consumers with higher environmental concern leads to higher switching intention to bioplastic products usage.

A person's innovativeness can be defined as the adaptability of new things or innovative items. Consumers' innovativeness, which represents the degree to which the consumer is earlier to adopt innovation than other consumers (Goldsmith & Hofacker, 1991), is regarded as an important personal trait that influences a person's intention to adopt innovations (Hirschman, 1980). An individual's level of innovative behavior is a key element in his/her acceptance of new technologies or innovation (Brancheau & Wetherbe, 1990). A lot of past studies have shown that there is a positive and significant relationship between a person's innovativeness and their purchasing intention (Shanmugavel & Micheal, 2022; Chauhan et al., 2021; Li et al., 2021; He et al., 2018; Scherer et al., 2017; Jeong et al., 2009). Therefore, the following hypothesis can be hypothesized:

H₅: Consumers with higher personal innovativeness lead to higher switching intention to bioplastic products.

1.4 Proposed Research Model

Based on the above hypothesis the following research model can be drawn.

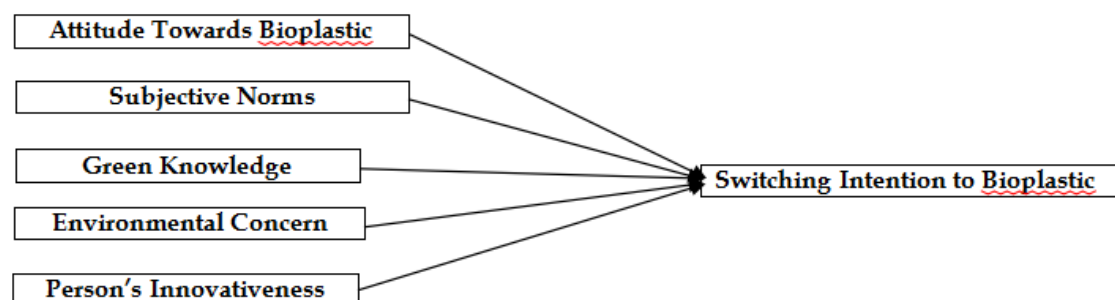


Figure 1: Proposed Research Model

2. Method

2.1 Study Type, Instrument Development, Sampling Technique, and Data Source

To test the hypotheses and to validate the proposed research model of this study, a quantitative research method had been used. In this study, a sample of 218 university faculties was taken from different universities across Bangladesh. Through a structured survey questionnaire (Google survey form) data were collected from the respondents with the help of a convenience sampling technique. The survey questionnaire consists of two sections namely the demographic profile of the respondents and constructs-related questions. The instrument has been adopted from past studies, such as attitude, subjective norm (three items and collected from Nguyen et al., 2016), environmental concern (five items

and taken from Chan, 2001), green knowledge (six items and taken from Mohr et al., 1998), Person's innovativeness (four items and picked from Agarwal & Prasad, 1998). Finally, the construct switching intention towards bioplastic products has three items and it was taken from the prior study of Hazen et al., (2017). The questionnaire contains 5 Likert- scale questions from 1- strongly disagree to 5- strongly agree. Secondary data has been used in the study to construct the literature review, and theoretical background, and to select the research variables. The secondary data was collected from several published research articles and peer-reviewed papers.

2.2 Analysis

Data analysis was carried out with the help of SPSS 25 software. For demographic questions, a simple frequency distribution analysis was done. To cross-check the internal consistency or scale compatibility of the items or questions, a reliability analysis was done. In this study, a correlation analysis was employed to measure the positive or negative relationships among the studied constructs. Finally, a multiple regression analysis was performed to understand the effect of all independent variables on the dependent variable and to test the proposed research model of this study.

3. Results and Discussion

3.1. Results

3.1.1 Demographic Profile of the Respondents

Table 1 depicts the demographic profile of the survey respondents of this study. In this study, Male respondents were 174 (79.82%), higher than Female respondents 44 (20.18%). In terms of age, below 30 years of old respondents were 56 (25.69%), 31-40 years were 74 (33.94%), 41-50 years were 43 (19.72%), 51-60 years were 32 (14.68%), and 61 years or more were 13 (5.96%). In the aspect of the respondents' monthly income, up to 40,000 Tk were 72 (33.02%), 41000-50000 TK were 56 (25.69%), 51000-60000 TK were 39 (17.89%), 61000-70000 TK were 29 (13.30%), and 71000 TK or more 22 (10.09%). In this study, graduate respondents were 63 (28.90%), post-graduate were 127 (58.25%), and PhD holders were 28 (12.84%). In terms of the respondents' current job position, teachers' assistants were 16 (7.33%), lecturers were 68 (31.19%), assistant professors were 76 (34.89%), associate professors were 33 (15.14%), and professors were 25 (11.47%).

In the aspect of prior experience of using bioplastic products, respondents who used bioplastic before were 179 (82.11%), and not having any prior experience 39 (17.89%). Finally, the respondents' frequency of using bioplastic products (monthly); None was 33 (15.14%), 1-5 times were 118 (54.13%), and 6-10 times were 67 (30.73%).

Table 1 Profile of respondents

Your Gender	Percentage	Your Education	Percentage
Male	79.82	Graduation	28.90
Female	20.18	Post-graduation	58.25
Your Age		PhD	12.84
Below 30 Years	25.69	Current Job Position	
31-40 Years	33.94	Teachers' assistant	7.33
41-50 Years	19.72	Lecturer	31.19
51-60 Years	14.68	Assistant professor	34.89
61 or More	5.96	Associate professor	15.14
		Professor	11.47
Your Monthly Income		Your Prior Experience of using Bioplastic products	
Up to 40000 Tk	33.02	Yes	82.11
41000-50000 TK	25.69	No	17.89
51000-60000 TK	17.89	Frequency of using any bioplastic products (Monthly)	
61000-70000 TK	13.30	None	15.14
71000 TK or More	10.09	1-5 Times	54.13
		6-10 Times	30.73

3.1.2 Reliability Test

Table 2 represents the reliability test of this study. Here, six sets of reliability tests were run and showed the Alpha value of different constructs and the number of items used for each construct to get the standard Cronbach's Alpha value (> 0.70). The table shows Cronbach's Alpha (α) values for Attitude towards bioplastic (AT), Subjective Norm (SN), Green Knowledge (GK), Environmental concern (EC), Person's Innovativeness (PI), and Switching Intention to Bioplastic (SIB) respectively as 0.767, 0.785, 0.794, 0.739, 0.721, and 0.748, which are (α) > 0.70 , which ensures that the reliability of the survey questions is acceptable for this study. The reliability test also showed that studied constructs' Cronbach's Alpha values varies from 0.721 and 0.794.

Construct Name	Cronbach's Alpha	No. of items
AT	0.767	3
SN	0.785	3
GK	0.794	5
EC	0.739	6
PI	0.721	4
SIB	0.748	3

3.1.3 Correlations Among Variables

Table 3 indicates the correlations among all the studied constructs of this study. This study reported that SIB positively correlates with AT (0.483** or 48.3.% at a 99 per cent confident interval and significant at the 0.01 level (0.000). The study found that SIB positively correlated with SN (0.537** or 53.7%, 0.000), GK (0.576** or 57.6%, 0.000), EC (0.528** or 52.8%, 0.000), and PI (0.524** or 52.4%, 0.000).

Constructs	SIB	AT	SN	GK	EC	PI
SIB	1					
AT	0.483 ^{**}	1				
SN	0.537 ^{**}	0.603 ^{**}	1			
GK	0.576 ^{**}	0.599 ^{**}	0.667 ^{**}	1		
EC	0.528 ^{**}	0.581 ^{**}	0.586 ^{**}	0.583 ^{**}	1	
PI	0.524 ^{**}	0.405 ^{**}	0.524 ^{**}	0.565 ^{**}	0.590 ^{**}	1

^{**} Correlation is significant at the 0.01 level (2-tailed)

In addition, AT has a positive association with SN (0.603** or 60.3%, 0.000), GK (0.599** or 59.9%, 0.000), and EC (.581** or 58.1%, .000), and PI (0.405** or 40.5%, 0.000). Moreover, this study also confirmed that SN has positive relationships with GK (0.667** or 66.7%, 0.000), EC (0.586** or 58.6%, 0.000), and PI(0.524** or 52.4%, 0.000). Besides that, GK positively correlated with EC (0.583** or 58.3%, 0.000), and PI (0.565** or 56.5%, 0.000). Finally, EC has found a positive relationship with PI (0.590** or 59.0%, 0.000).

3.1.4 Regression Analysis

Table 4 demonstrates the model summary of this study. The regression model shows a good fit with an F value of 47.886 ($p < 0.05$) and R Square value of 0.432, indicating 43.2% of the variation in the SIB can be predicted from the independent variables AT, SN, GK, EC, and PI. Thus, the proposed research model is statistically significant.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	0.657	0.432	0.423	0.57558	0.432	47.886	3	214	0.000

3.1.5 Test of ANOVA

Table 5 represents the ANOVA test of this study, which means the study's general significance. In this study, the p-value is denoted as (0.000), which is much smaller than 0.05 or 5% level of significance. Therefore, it can be said that the proposed research model is significant ($F=47.886$; $p<.05$).

Table 5 ANOVA Testing					
Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	27.276	3	9.092	47.886	0.000
Residual	50.104	214	0.234		
Total	77.381	217			

3.1.6 Summary of Coefficients

Table 6, denotes the summary of the coefficients of this study. This study revealed that the relationship between AT and SIB is statistically significant ($\beta= 0.123$, $t= 2.137$, $p= 0.033 <0.05$). Therefore, H_1 is accepted. Moreover, the SN has found no statistically significant relation with SIB ($\beta= 0.094$, $t= 1.416$, $p= 0.158 >0.05$). So, hypothesis H_2 is rejected. Additionally, GK ($\beta= 0.180$, $t= 2.967$, $p= 0.003 <0.05$) has been found to have a statistically significant association with SIB. Thus, hypothesis H_3 is accepted. Hence, EC ($\beta= 0.155$, $t= 2.601$, $p= 0.010 <0.05$) has found a significant relationship with SIB. Therefore, hypothesis H_4 is supported. Finally, this study confirmed that PI ($\beta= 0.256$, $t= 4.149$, $p= 0.000 <0.05$) has a positive and significant impact on SIB products usage. Thus, H_5 is accepted in this study.

Table 6 Summary of Coefficients					
Unstandardized Coefficients			Standardized Coefficients		
Model	B	Std. Error	Beta	t	Sig.
1 (Constant)	-0.066	0.254		-0.262	0.794
AT	0.162	0.076	0.123	2.137	0.033
SN	0.114	0.080	0.094	1.416	0.158
GK	0.217	0.073	0.180	2.967	0.003
EC	0.195	0.075	0.155	2.601	0.010
PI	0.278	0.067	0.256	4.149	0.000

3.2 Discussion

This study attempts to explore Bangladeshi university faculties switching intention to bioplastic products based on the theory of reasoned action and three additional variables (green knowledge, environmental concern, and person's innovativeness). The study findings revealed that university faculties with higher positive attitudes towards bioplastic lead to higher switching intention to bioplastic product usage in Bangladesh. This result is similar to other prior studies (Stahl et al., 2021; Araque et al (2009); Shimul et al., 2021; Photcharoen et al., 2020; Hengboriboon et al., 2020; Klein et al., 2019; Ghazali et al., 2017; Ajzen, 1991). Moreover, in this study, the subjective norm has found no direct effect on university faculties switching intention to bioplastic products. This estimation highlighted prior studies (Shin & Hancer, 2016; Othman & Rahman, 2014). University faculties are mostly sophisticated and expert buyers than other groups of people or professionals. Possibly, due to this reason, their behavior is not affected by friends, family members, relatives, colleagues, peer groups and near & dear ones. Additionally, this study also proved that green knowledge has a positive and significant impact on consumers switching intention. A lot of prior studies have found the same results (Adetola et al., 2021; Saari et al., 2021; Fabiola et al., 2020; Qomariah & Prabawani, 2020; Choi & Johnson, 2019). Moreover, the output of this study has confirmed that environmental concern has a statistically significant relationship with university faculties switching intention to bioplastic. This result is consistent with the various prior studies (Saari et al., 2021; Adetola et al., 2021; Xu et al., 2020; Qomariah

& Prabawani, 2020; Fabiola et al., 2020). Finally, this study also established a significant relationship between a person's innovativeness and consumers' switching intention to bioplastic products. Previous studies also confirm similar types of results (Staht et al., 2021; Klein, 2019; Persaud et al., 2017).

The findings of this research contribute to the theoretical understanding of bioplastic consumption in several ways. Firstly, this research validates the theory of reasoned action in the context of bioplastic usage intention of the university faculties in Bangladesh which leads to the robustness of the theory of reasoned action in bioplastic perspectives. Secondly, this study also uses three additional variables (green knowledge, environmental concern, person's innovativeness) and the results reveal that these variables have a positive and significant impact on switching intention to bioplastic usage. Theoretically, this would be treated as an extension of the theory of reasoned action for further studies by scholars. Thirdly, there is a growing consensus that consumers' understanding of personal well-being and environmental concerns influences the phenomenon of bioplastic consumption (Mutum et al., 2021; Yue et al., 2020). Fourthly, a conceptual understanding of the bioplastic usage intention of the consumers is drawn in the light of green knowledge, person's innovativeness, and environmental concern providing a more robust understanding of bioplastic usage behavior. Finally, this research provides a shred of empirical evidence that consumers' innovativeness is the strongest predictor in enhancing consumers switching intention to bioplastic products.

The outputs of this study would benefit the Bangladeshi practitioners who are engaging within the bioplastic industries in several ways. Firstly, the results of this study show that university faculties have higher switching intention towards bioplastic products and this brings an opportunity to the bioplastic firms in Bangladesh to produce a larger amount of bioplastic products which leads uptake of the bioplastic market in the future. Secondly, in order to ensure sustainable consumption and production in the modern era, companies can use university faculties as buzz or referral marketers and build awareness among the consumers through various promotional tools highlighting green knowledge & environmental concern issues. Thirdly, bioplastic is a new concept among Bangladeshi people and most of them are unaware of eco-friendly consumption. So, companies can promote the benefits of bioplastic usage and educate them to consider bioplastic products as an alternative to plastic products. Moreover, bioplastic firms and governmental organizations will be able to build consciousness among consumers of using bioplastic products, thus leading consumers to be more responsive towards environmental sustainability. Finally, this study also offers guidelines to the policy-making authorities while developing policies related to increasing the purchasing attention towards eco-friendly products.

3.3. Implications

3.3.1 Theoretical Implications

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3.3.2 Managerial Implications

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4. Conclusion

This study uses the *TRA* as an underpinning model along with three additional constructs (Green knowledge, Environmental concern, and Person's innovativeness) to understand the switching intention of the university faculties in Bangladesh. There are many other behavioral models namely the Theory of Planned Behaviour (TPB), Decomposed Theory of Planned Behaviour (DTPB), Health Belief Theory (HBT), Value Expectancy Model (VEM), and Theory of Consumption Value (TCV) can be employed in future studies. Moreover, many other factors like perceived value, perceived risk, perceived price, perceived trust, perceived quality, health knowledge, health concern, and country of origin issues can be used in future studies to examine consumer behavior in developed and developing countries. The results of this study may not be similar everywhere and recommend that scholars should be focused on the different emerging economies with larger data sets. Finally, this study has a sample size issue and focused on only university faculties. So, further studies will be undertaken to examine the bioplastic usage intention of other segments of consumers or professionals.

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