

# The moderating effect of media exposure on the purchase intention of generic drugs: An application of the theory of planned behavior

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## ABSTRACT

Healthcare consumers in the Philippines seeking for quality and affordable medication stirred the demand for generic drugs; cheaper medicines that have the same level of efficacy as that of the popular-branded medications. Generic drug companies use various media platforms to further stimulate market growth. In line with this, the aim of this study is to predict the moderating effect of media exposure to the buying intention of generic drugs among consumers using Ajzen's Theory of Planned Behavior (TPB). The TPB model is used to predict a person's intention towards a behavior by examining three determinants – Attitude (ATT), Subjective Norm (SN), and Perceived Behavioral Control (PBC). The dependent variable of the study is the intention to buy generic drugs, while SN, AT and PBC are the explanatory variables. Moreover, media exposure was utilized as a moderating variable. The model was evaluated via Structural Equation Modeling (SEM) using SmartPLS 3. Although media exposure has no significant moderating effect to consumer's decision in buying generic drugs, the explanatory variables (ATT, SN and PBC) established a significant relationship to buying intention.

**Keywords:** Media Exposure; Theory of Planned Behavior; Structural Equation Modeling; Generic Drugs

## INTRODUCTION

With the increasing demand for quality healthcare, the access to medication has been a continuing global issue. A study by the World Health Organization (WHO) shows that almost 30% of the world population lacks access to essential medicines and that the figure will rise to more than 50% in some countries of Africa and Asia. (Mathew, 2015)

There is no denying that the most vital factor interfering with the majority's accessibility is the cost of medication. Many medicines currently available in the market are simply too expensive for millions around the world to afford (Grover, Citro, Mankad, & Lander, 2012). Research states that in most developing countries, pharmaceutical

companies perceived it to be more profitable to sell drugs to the very wealthy at high prices than it is to sell cheaper drugs to a greater number of people. As a result, medicines remain unaffordable for the majority of people in many parts of the world. These Innovators or the Branded Pharmaceutical companies have long reigned in the healthcare industry; and their profit-seeking behavior are largely responsible in determining which diseases drugs are developed for, where drugs will be sold, and at what cost (Grover et al., 2012).

To address this concern about affordability, competition from generic drug manufacturers enter the healthcare market, wherein drug prices have been drastically reduced (Grover et al., 2012). Also, numerous studies have proven that saving through substitution of branded medicine to cheaper generic medicines, savings in the range of 10, 90% can be achieved (Mathew, 2015). To further empower the influence of these products, national government of most developing countries have been encouraging the use of generic drugs worldwide and healthcare systems have policies of substituting expensive branded original medications with generic medicines (Mathew, 2015).

The Philippines for example has the Generics Act of 1988, also known as Republic Act (RA) 6675, that seeks 'to promote, require, and ensure the production of an adequate supply, distribution, use, and acceptance of drugs and medicines identified by the generics names (Wong et al., 2013). Also, the most recently passed provisions of RA 9502, known as the 'Universally Cheaper and Quality Medicines Act of 2008 (Republic of the Philippines, 2008).

Due to strong favorable response from the Philippine National Government, strong marketing initiatives have begun in campaigning generic drugs in the country; as well as opening of numerous generic drugstores that threatened market leadership of established branded giants. These generic manufacturers are with the likes of The Generics Pharmacy, Generica, and Botika ng Bayan.

Not long after, the branded giants have also engaged in the generic playing field by releasing their own price-matched medicine. Unilab launched Ritemed, multinational Pfizer has come up with Rhea Generics, while Watsons drugstore have their own brand of generics. Not only do pharmaceuticals in the Philippines place themselves as the more effective, but the most cost-efficient choice as well.

With the advent of technology, pharmaceutical companies are also relying on different means to market their products, which include DTCA or "direct-to-consumer advertising" (Ghia, Jha, & Rambhad, 2014). In the Philippines, DTCA is only allowed for "over-the-counter" medicines or if a company would simply like to reinforce branding. They have used mass media, TV, Print, and Radio, to address their biggest audience and send the message of product efficacy and extreme affordability. Therefore, exposure to such information is inevitable.

For this paper, we applied the principles of Ajzen's Theory of Planned Behavior (TPB) in the context of purchasing generic drugs. We tried to answer the broad question "How do the predictors of TPB -- Attitude (ATT), Subjective Norm (SN), and Perceived Behavioral Control (PBC) -- affect the intention of consumers to purchase generic drugs? Furthermore, does media exposure have moderating effect on purchase intention?"

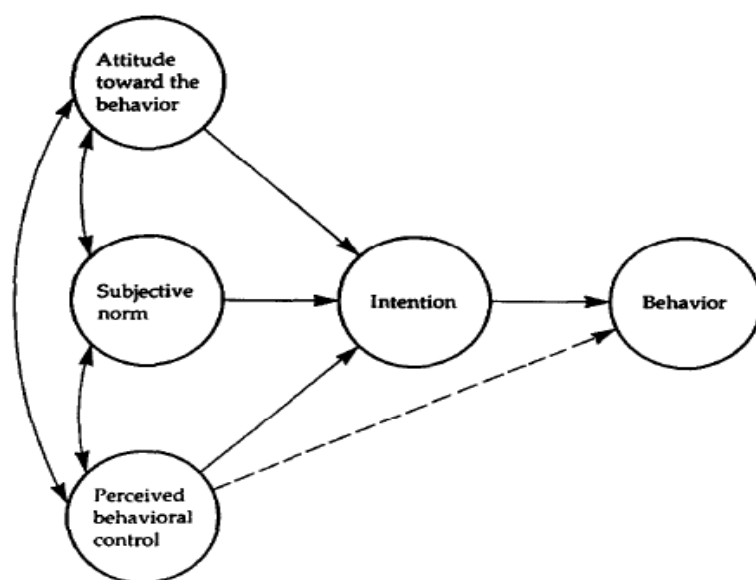
The aim of this research is to use TPB in assessing the Filipino patient/consumer's intention to buy generic drugs. In addition, we would like to explore further the TPB model by adding media exposure, as a moderating variable that would reinforce the three (3) TPB perceptual variables in achieving desired behavioral intention.

### TPB: Predictor of human behavior

Among the different theories in relation to understanding human behavior, the TPB that was developed by Ajzen (1991) matched with our model of our study. Based on this, we used media exposure as a moderating variable and intention as dependent variable to TPB's three (3) perceptual variable.

TPB is an extension of the theory of reasoned reaction because the original model of the latter had limitation in dealing behavior in controlling their will or committing to a particular course of action (Ajzen, 1991). Adapting Ajzen's Theory, (Goh, Ho, & Jiang, 2016) defines the TPB as follows:

"The TPB model describes how people are likely to perform a particular behavior by believing that it leads to a positive outcome, coupled with the approval from important referents and also the necessary abilities, resources, and opportunities to conduct such behavior. According to the TPB model, an individual's intention to undertake a given behavior is influenced by his/her attitude towards behavior, subjective norm, and perception of behavioral control factors. It is said that an individual's intention is notified by his/her attitude on the behavior, subjective norm towards participating in the behavior, and, a person's assessment revolving around his/her ability to successfully participate towards the focus behavior.



**Figure 1.** *Theoretical framework* (Ajzen, 1991)

Also, the central factor of TPB is the individual's *intention* to perform a given behavior. As defined by Ajzen (1991), intentions are indications of how hard people are willing to try of effort to exert to perform the behavior.

A study was done by Mascherek et al. (2015) entitled *Using the theory of planned behavior to model antecedents of surgical checklist use: a cross-sectional study*, they discussed that the TPB's three (3) perceptual variables affect the formation of intentions for an individual to perform a behavior. They also added that intentions are predictive of the actual behavior, though it sometimes varies depending on the aspects that influence it.

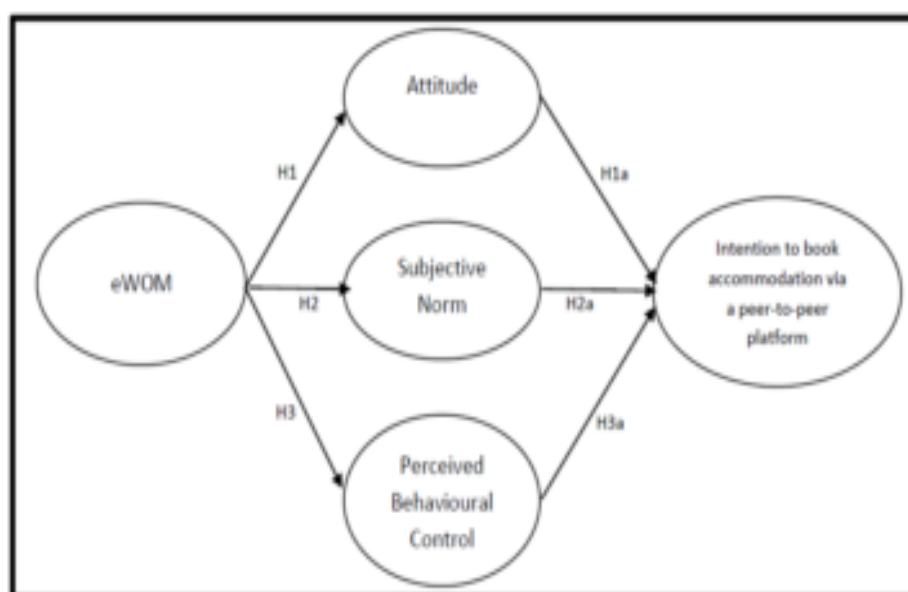
To the best of our knowledge, the TPB has not been applied to the context of Filipinos' intention of buying a generic medicine. With the presence of the moderating and

dependent variables, the TPB would predict if media exposure has a moderating effect in the buying intention of the Filipinos in relation to generics medicine.

### CONCEPTUAL BACKGROUND: ELECTRONIC WORD OF MOUTH (EWOM) AND TPB

Technological advances around the world allowed companies to expand their platform in promoting their products. It provided a new form of advertising mechanism through the use of internet (online advertising and websites) and/or social media such as Facebook and Twitter. In addition to this, companies tap bloggers who caters their same target market to provide a space in their blogsite for some ads. In the same manner, celebrities for example, in the Philippines use their Instagram accounts to post a photo of the product they endorse and how they use it. Based on research, it shows how effective the word of mouth through social media is in playing a vital role of influencing target market's purchasing decision.

Electronic word of mouth (eWOM) was stated in the paper done by Goh, 2016 as comments either positive or negative, which is made by customers regarding a company or a product to a significant amount of people through the Internet. eWOM is considered effective because it is more convenient than the traditional word-of-mouth process. It has the ability to achieve the higher reach as it allows the consumers to communicate their opinions to others. Also, it provides a wide of online information to the consumers (negative or positive) regarding a certain product that they wish to have enough information.



**Figure 2.** *Conceptual framework of eWOM and TPB* (Goh et al., 2016)

Figure 2 is an example framework of how Goh, et al 2016 presented in his study entitled *The Effect of Electronic Word of Mouth on Intention to Book Accommodation via Online Peer-to-Peer Platform: Investigation of Theory of Planned Behavior* on how eWOM positively affects the three (3) components of the TBP. eWOM, as a form of information media, is an antecedent that positively affects ATT, SN, and PBC. This eventually leads to the intention of purchase or booking accommodation via peer-to-peer platform. In this case, eWOM is the source of information, thus, becoming a powerful antecedent.



When a person opens himself to information, he (and even other people) is able to formulate certain beliefs. Media can present numerous information. For this paper however, media exposure does not serve as an antecedent but as a moderating variable that positively reinforces behavioral beliefs leading to the intention to buy generic drugs.

### **Beliefs toward generic drugs**

Generic drugs are defined as the type of medicine where the original patent has expired and which may now be produced by manufacturers other than the original innovator (patent- holding) company (Dunne & Dunne, 2015). While other drug patents remain unexpired, other companies are prohibited from reproducing these drugs and the patent-holders are normally in control with the price, which appears to be quite expensive as expected.

What makes generic drugs preferable for people? Most studies have been conducted in the United States (USA) answering the question of what people think about generic drugs. A national survey among commercially insured adults was conducted in USA to evaluate their perceptions on generic drugs. Respondents of about 94% believed that generic drugs are less expensive than brand name drugs and only 10% believes that generics cause more side effects than brand name drugs (Wong et al., 2013). If that is the case, then there truly is some level of preference toward generic drugs.

However, a qualitative study in USA revealed that generic drug use is still hindered by beliefs that it is not as safe and effective as brand-name drugs (Wong et al., 2013). And that some people would still go for the branded in adhering to their medication. Then again, the relevance of price could not be disregarded because the preference for generics was highly influenced by the lower cost of these medicines (Wong et al., 2013)

The people around, especially those within a person's social circle would sometimes like to share their experiences in taking generic drugs. Generics' widespread availability, recommendations from friends, and trust in the healthcare provider and manufacturers of generic drugs increased the likelihood that participants would choose a generic drug (Wong et al., 2013). It's a matter of practicality for most people especially the ones taking ethical or maintenance medicine.

To validate the safety and efficacy of generics, people would then consult their personal physician or healthcare professionals. The combined influence of both the physician and the pharmacist may result in a more favorable attitude toward generics use (Wong et al., 2013).

It is important to take note of a person's capability to perform certain behavioral intentions. Control beliefs are formed with the presence of perceived factors (or the perceived facilitation) that may either facilitate or hinder a given behavior and influence PBC. In the identification of PBC, the factor regarding self-efficacy was considered relevant and refers to an individual's confidence in his/her ability to perform certain behaviors that influence the events affecting his/her life. (Jannuzzi et al., 2014)

According to (Chung, 2016), behavioral intention relates to the stated likelihood of an individual's engagement in a specific behavior. And based on TPB, the more closely related ATT, SN, and PBC are to the real situation, the greater the predictive value of the theory (Mascherek et al., 2015).

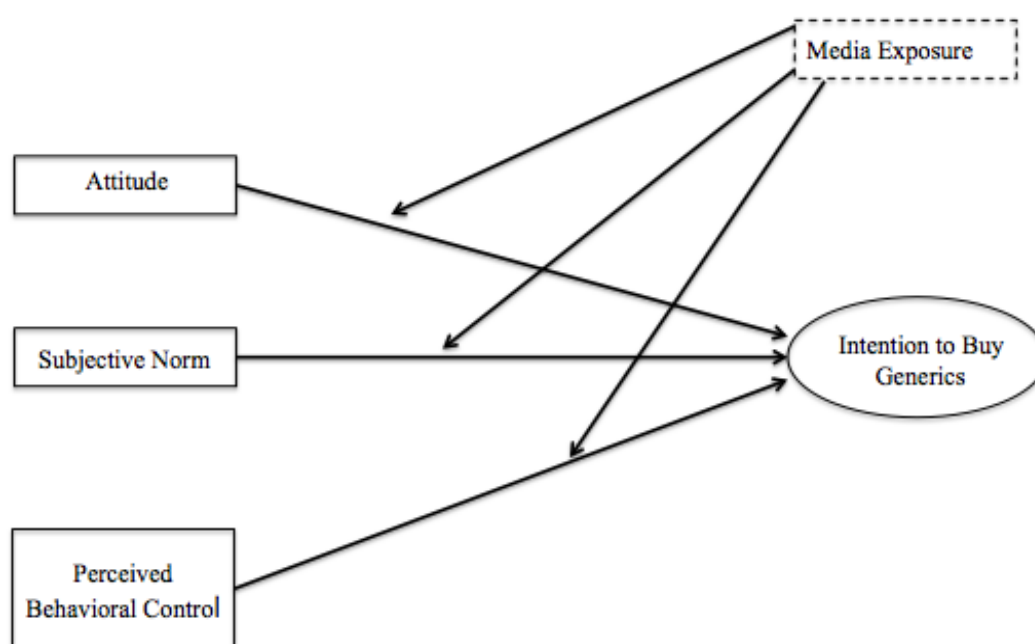
### Media exposure as the moderating variable of TPB

The study focuses more on the effects of DTCAs acting in the form of media exposure as a moderating variable of the determinants of an intention and/or behavior. And like most advertising campaigns, an advertiser's job is to elicit a favorable attitude toward the ad, transfer that attitude to the advertised brand and eventually increase the intent to buy the product. (KledKapexhiu, 2015). Exposure to advertisements through media can directly influence behavioral action.

However, behavioral change might also be achieved through indirect routes. First, mass media messages can set an agenda for and increase the frequency, depth, or both, of interpersonal discussion about a particular health issue within an individual's social network, which, in combination with individual exposure to messages, might reinforce (or undermine) specific changes in behavior (Wakefield, Loken, & Hornik, 2010).

Individuals may deviate from the standard rational behavioral model, for example the TPB may be affected by messages coming from different sources also when these messages do not provide any relevant information.

In choices that involve complex calculations, individuals may base their decisions on how readily examples of an event can be brought to mind instead of considering the different aspects relevant for a rational decision (De Paola & Scoppa, 2014). The easier to comprehend the message, the easier it is for the person to arrive at a certain decision and practice a certain behavior.



**Figure 3.** Conceptual framework (Macomb, Rañola, & Bautista 2016)

This will be the Framework to be used in this study.

- *Attitudes Towards Generic Drugs* – For the purposes of this study, attitude is defined as a person's assessment in regard to the probable or expected outcomes of a behavior (Jannuzzi, Rodrigues, Cornelio, Sao-Joao, & Gallani, 2014)
- *Subjective Norms* - Perceived social pressure, that is, the individual's perception concerning the opinion of social references in regard to a given behavior (Jannuzzi et al., 2014)

- *Perceived Behavioral Control* - The individual's perception regarding his/her control over behavior (Jannuzzi et al., 2014).
- *Media Exposure* – According to (De Paola & Scoppa, 2014), Being exposed to information provided by the media may change individual choices through a number of different channels. This paper focused more on a person's exposure to advertisements by generic drugs in three forms of media: Television, Print, and Radio.
- *Intention to buy generic drugs*– intentions are a direct result of attitudes toward behavior SN and PBC (KledKapexhiu, 2015). Which in this case, is the intention to buy generic drugs and it is believed that intention is an antecedent determinant to predict the future behavior (Chung, 2016); that leads to preference towards generics.

### **Hypotheses: Intention to purchase generic drugs with media as moderator**

This paper will try to answer the research questions mentioned earlier: How do the predictors of TPB -- Attitude (ATT), Subjective Norm (SN), and Perceived Behavioral Control (PBC) – affect the intention of consumers to purchase generic drugs? Will media exposure be a relevant moderating variable to TPB predictors?

According to Chung's research using the TPB model, many studies proved that attitude has a positive impact on behavioral intention (Chung, 2016). For example, people who are likely to patronize generics drugs are those who feel good about its efficacy, and affordability. That strong recognition towards generic drugs would push the consumer to buy. Therefore, the first hypothesis for this research is:

H1: Positive Attitudes of the consumer towards generics positively influence the intention to buy generic medicine

As described by (Mascherek et al., 2015), in their use of the TPB Model, if individuals perceive strong subjective norms that people who are close to them, friends, family, co-workers, or such, expect the usage of generics and they highly value these expectations, intentions to purchase and adhere to generic drugs should be positively influenced. The second hypothesis therefore says that:

H2: People of importance to the consumer can positively influence the intention to purchase generic drugs.

If individuals perceive high levels of control over the target behavior to be successfully conducted, intentions to [purchase generic drugs] should be positively influenced (Mascherek et al., 2015). In addition, this determinant of intention is seen to have two factors: control beliefs and perceived facilitation. Control beliefs are an individual's belief concerning the self- availability of skills, resources and opportunities. It is the importance that the individual places in these skills, resources, and opportunities that he or she can achieve the desired outcome or intention (Goh et al., 2016); the individual, in his own time and given conditions, would still be able to fulfill the intention to buy.

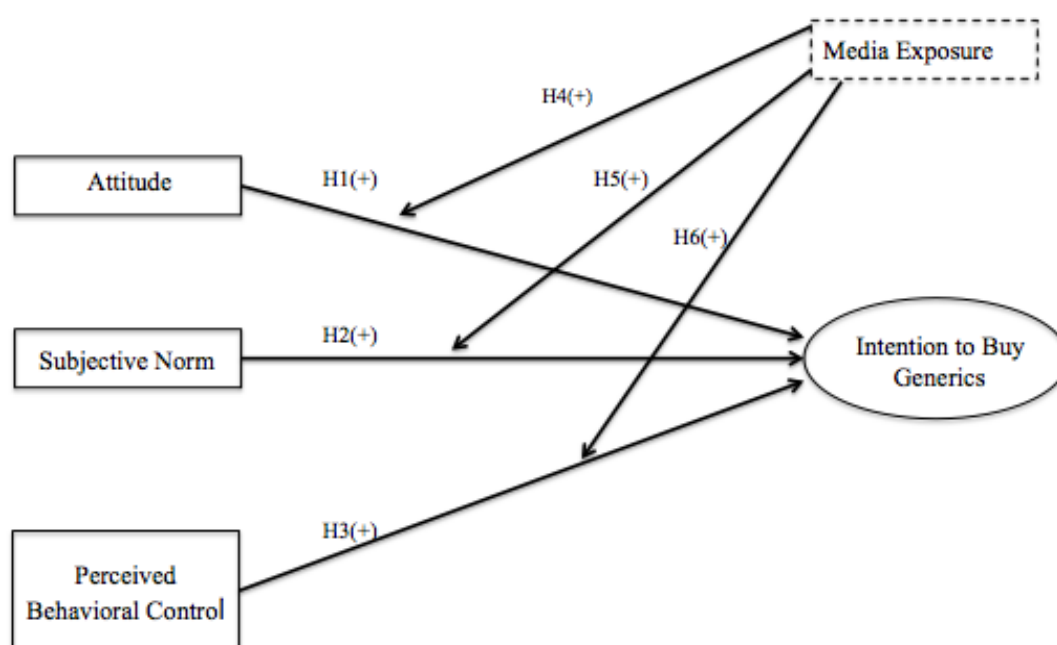
H3: Positive control beliefs (through PBC) positively affects the consumer's capability of buying generic drugs.

*Media as moderator.* Since advertising through different forms of media has become a powerful force that plays a significant role in shaping the attitude and behavior of people, the following hypotheses presumes that media can also positively have an effect on the three (3) antecedents of intention and/or behavior.

H4: Media exposure can positively reinforce a person's attitude towards the intention to buy generic drugs

H5: Media exposure can positively provide the normative expectation to buy generic drugs.

H6: Media exposure is an enabling factor that can positively influence a patient's PBC resulting to the intention to buy generic drugs.



**Figure 4.** Conceptual framework with corresponding hypotheses

In this manner, media through DTCA exposing the competitive messages of generic drugs plays the important role of strengthening TPB antecedents that would cause an individual to arrive at the intention [and later on the preference] to buy generic drugs.

#### RESEARCH DESIGN AND DATA COLLECTION

This study used a predictive design using the TPB model. We utilized convenience sampling and received a total of 334 survey questionnaires administered via semi-facilitated face-to-face interview and online survey. For the online survey, we posted in our personal Facebook accounts, the google survey link and asked our friend to answer the survey. After checking the integrity of the collected forms, there were only 325 (80 face to face and 245 via online) questionnaires that we deemed complete for analysis.

We modelled our survey on the paper of Ajzen (2006) on how to construct TPB questionnaire. After which, we pre-tested it with 20 respondents for reliability. We revised

the questionnaire based on the comments of the respondents and computed the Cronbach's alpha for each of the variables. Table 5 shows the Cronbach's alpha values for each of the variables. Finally, the questions used for the study are shown in Table 1.

**Table 1.** *Questions used in the study*

Variable	Questions
Attitude	<ul style="list-style-type: none"> <li>• It is Good that Generic Drugs are in the Market</li> <li>• Generally, Generic Drugs are Effective</li> <li>• Adherence to Generic Drugs would be Beneficial to me</li> <li>• I should be Comfortable in buying Generic Drugs</li> </ul>
Subjective Norm	<ul style="list-style-type: none"> <li>• Most of the people who are important to me would recommend buying Generic Drugs</li> <li>• Most of the people I know buy Generic Drugs</li> <li>• Most of the people would commend me if they know that I take Generic Drugs for my medication</li> </ul>
Perceived Behavioral Control	<ul style="list-style-type: none"> <li>• It is easy for me to shift to Generic Drugs</li> <li>• I know where to buy these products</li> <li>• Generic Drugs are readily available in the market</li> </ul>
Intention	<ul style="list-style-type: none"> <li>• I will most likely buy Generics the next time I visit the pharmacy</li> <li>• If I have the opportunity to buy, I would buy Generics</li> </ul>
Media Exposure (Tan, Qing, Teo, & Ling, 2015)	<ul style="list-style-type: none"> <li>• During the past 30 days when you watch TV, how often do you see commercials about Generics (TGP, Watsons, Rhea, Ritemed)?</li> <li>• During the past 30 days, how often do you see Ads about Generic Drugs in the Newspaper or Magazine?</li> <li>• During the past 30 days when you listen to the Radio, how often do hear Ads about Generic Drugs?</li> </ul>

Source: Melorose, Perroy, & Careas, 2015

## RESULTS AND DISCUSSION

**Table 2.** *Result of the Descriptive Analysis*

Respondents Profile		
	N	%
Individual's age		
20 - 29	208	64.0%
30 - 39	65	20.0%
40 - 49	22	6.8%
50 - 59	17	5.2%
60 and above	13	4.0%
Gender		
Male	179	55.1%
Female	146	44.9%
Educational Attainment		
Elementary	5	1.5%
Highschool	18	5.5%
College	281	86.5%
Postgraduate	21	6.5%
Monthly Income		
less than 12,000php	32	9.8%
12,000 - 28,000php	158	48.6%
28,000 - 50,000php	90	27.7%
50,000 - 145,000php	39	12.0%
greater than 145,000php	6	1.8%

It is shown on Table 2 that the number of male respondents (55.1%) was greater than that of female (44.9%). About 96% of the survey participants were aged between 20 and 59, with most aged between 20 and 39. Moreover, 93% of them attained a College and Postgrad education. The rest of 1.5% and 5.5% have only an Elementary and High School educational attainment respectively. In terms of monthly income, almost half or 48.6% of the respondents declared income is between Php 12,000-28,000.

### Evaluation of the measurement model

The conceptual framework in this study, illustrated in Fig. 3, shows an extended model of the TPB. The goal is to show the role of media exposure (ME) as positive reinforcement to the buyer's INT in purchasing generic medicine.

In this paper, INT is measured using TPB's perceptual variables and ME as moderating variable. ME, PBC, and SN have three and ATT has four measurement models. The constructs for all these are considered reflective because the composite reliability are all mutually interchangeable (Ketchen, 2013).

**Table 3.** *Items and construct cross loadings to assess discriminant validity of the measurement model*

	ME	ATT	INT	PBC	SN
ME1	<b>0.866</b>	0.162	0.067	0.179	0.139
ME2	<b>0.835</b>	0.131	0.063	0.142	0.191
ME3	<b>0.879</b>	0.244	0.071	0.217	0.194
ATT1	0.214	<b>0.843</b>	0.336	0.449	0.252
ATT2	0.204	<b>0.936</b>	0.522	0.495	0.420
ATT3	0.148	<b>0.915</b>	0.512	0.456	0.458
ATT4	0.211	<b>0.937</b>	0.512	0.502	0.366
INT1	0.072	0.497	<b>0.974</b>	0.678	0.661
INT2	0.081	0.534	<b>0.974</b>	0.672	0.666
PBC1	0.089	0.452	0.767	<b>0.858</b>	0.549
PBC2	0.267	0.436	0.406	<b>0.830</b>	0.323
PBC3	0.254	0.387	0.342	<b>0.757</b>	0.252
SN1	0.196	0.482	0.681	0.498	<b>0.900</b>
SN2	0.207	0.326	0.565	0.442	<b>0.909</b>
SN3	0.145	0.316	0.587	0.431	<b>0.899</b>

**Table 4.** *Frequency of exposure to media*

Frequency	Television	%	Print	%	Radio	%
Do Not Use/Do Not Have	17	5.23%	35	10.77%	28	8.62%
Very RARELY (once a month or less)	69	21.23%	80	24.62%	67	20.62%
Rarely (2-3 times a month)	78	24.00%	97	29.85%	86	26.46%
Occasionally (2-3 times a week)	73	22.46%	62	19.08%	62	19.08%
Frequently (1-2 times a day)	52	16.00%	34	10.46%	42	12.92%
Very FREQUENTLY (more than 2 times a day)	36	11.08%	17	5.23%	40	12.31%

Table 3 shows the result of the cross-loadings of the constructs using SmartPLS - statistical software for partial least-squares structural equation modeling or SEM (Ringle, Wende, & Becker, 2015). It can be seen in the table that the construct exhibits an internal consistency reliability because they are all higher than the set target of >0.7 (Ketchen, 2013).

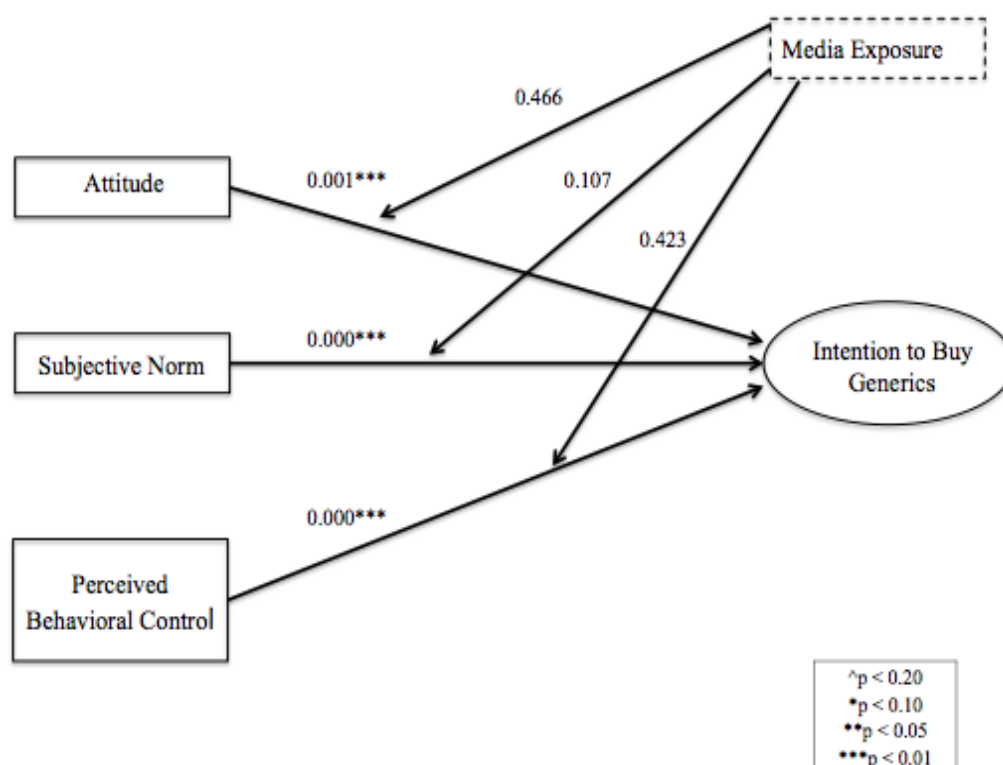
Table 4 shows the result of how frequent the respondents are exposed to traditional types of media namely Television or TV, print, and radio.

### Evaluation of the structural model

After evaluating if the constructs were valid and reliable, we assessed the structural model's (Fig. 3) predictive capabilities and its relationship with ME between the constructs.

**Table 5.** Reliabilities, convergent and discriminant validities, and correlations among latent constructs of the measurement model

Latent Constructs	Cronbach's Alpha	Average Variance Extracted (AVE)	Composite Reliability	ATT	INT	ME	PBC	SN
ATT	0.930	0.826	0.950					
INT	0.945	0.948	0.973	0.552				
ME	0.824	0.740	0.895	0.241	0.089			
PBC	0.784	0.666	0.857	0.601	0.702	0.301		
SN	0.887	0.815	0.930	0.445	0.738	0.237	0.535	



**Figure 5.** Summary of the result of the analysis



**Table 6.** Hypothesis Test Results

Hypothesis	Path	Original Sample (O)	P Values
H1	ATT -> INT	0.172	0.001***
H2	SN -> INT	0.388	0.000***
H3	PBC -> INT	0.420	0.000***
H4	ME x ATT -> INT	0.048	0.466
H5	ME x SN -> INT	0.112	0.107
H6	ME x PBC -> INT	-0.058	0.423

^p &lt; 0.20

\*\*p &lt; 0.05

\*p &lt; 0.10

\*\*\*p &lt; 0.01

This study provides a different perspective in determining the influence of media to a consumer's purchase intention. In the same light, the application of TPB framework will give a behavioral understanding on the motivations of a consumer.

Table 6 presents the results through bootstrapping analysis using SmartPLS. We turned to basic statistical principles in interpreting our results: that if the P-value is less than 0.01 (very small), the results are considered highly significant and if the P-value is greater (but not close to) 0.05, the results are considered non-significant (Rumsey, 2010). Based from their P-values, we can observe that three paths proved to be significant determinants of behavioral intention: ATT -> INT (0.001,  $p < 0.05$ ), SN -> INT (0.000,  $p < 0.05$ ), and PBC -> INT (0.000,  $p < 0.05$ ). These outcomes strongly validate our hypotheses, but Ajzen's TBP itself.

However, assessing at ME as a moderator for ATT, SN, and PBC; result shows that it's moderating effect is not significant. ME x ATT -> INT (0.466,  $p > 0.05$ ), ME x SN -> INT (0.107,  $p > 0.05$ ), ME x PBC -> INT (0.423,  $p > 0.05$ ).

The study about the Filipino purchase intention in regard to generic drugs through TPB has been very challenging considering that there are many factors were need to be considered such as respondent's profile and segmentation. In addition, the careful choice of questions was considered to make sure that it will be aligned on the expected result of the study.

We have introduced ME and INT as moderating and dependent variable respectively to TPB. We find that the media exposure is not a factor that the consumers consider when they decide to buy a generic medicine. This is contrary to our conceptual framework in Fig. 4 which shows that ME have a positive reinforcement in the consumer's' decision to purchase.

The results shown in Table 5 that ATT, SN, and PBC are highly significant part to the buyer's intention to purchase.

### CONCLUSION AND MANAGERIAL IMPLICATIONS

We used Ajzen's TPB to determine the predictability of purchase intention by examining behavioral factors such as ATT, SN, and PBC. After conducting our research, we

can say that personal beliefs (ATT), opinions of peers (SN), and self-efficacy/confidence (PBC) are significant elements that can push a person to buy generic drugs. In addition, we extended the TPB model by adding ME as a moderating variable and found out that it has little or no moderating effect to the given behavioral factors.

From these results, we can conclude that many Filipino consumers, early on, are highly aware of the availability and the importance of generic drugs. The aggressive marketing initiatives of generic drug companies and/or the Philippine government brought about this awareness. ME played its role excellently as an antecedent to behavioral perception, rather than as a moderating variable.

Thus, we recommend that generic drug companies should continue connecting with the consumers' beliefs; coming up with marketing campaigns that precondition the ATT, SN, and PBC of a person. These companies must consider the aspects that customers value both affordability and efficacy which they take advantage of. The fact that generic drugs are cheaper, yet bio-equivalent to branded medicines, is a significant motivator to patronize generic drugs especially to consumers of a developing country like the Philippines. Managers can capitalize on these results by looking at ways on how ATT, SN and PBC could be maximized to influence people to buy generic drugs. For instance, designing a campaign where friends are testifying on the efficacy of generic drugs could create a norm of generic preference. This can be an avenue for them to reach out to a diverse market segment and acquire new customers and therefore enhance market potential. However, generic companies must be more selective in the promotional channels that they will use. Recognizing that ME does not moderate purchase intention, it is recommended that they explore other channels to persuade consumers to buy generic drugs.

Future researchers of this study can do more with the TPB. Additional measures may improve the paper by considering different dimensions such as comparison of income classes, their purchasing power, and willingness to buy.

The need for medication is essential for the human person. Either generic drugs or 'branded' medicine, Filipino consumers nowadays are faced with more options of available drugs in the market; whether cheap or expensive, it all boils down to having access to quality medicine.

## REFERENCES

- Agaku, I. T., Adisa, A. O., Akinyamoju, A. O., & Agboola, S. O. (2013). A cross-country comparison of the prevalence of exposure to tobacco advertisements among adolescents aged 13-15 years in 20 low and middle income countries. *Tob Induc Dis*, 11(1), 11. <http://doi.org/10.1186/1617-9625-11-11>
- Chung, K. (2016). Exploring customers' post-dining behavioral intentions toward green restaurants : an application of theory of planned behavior. *International Journal of Organizational Innovation*, 9(July 2016), 119–135.
- De Paola, M., & Scoppa, V. (2014). Media exposure and individual choices: Evidence from lottery players. *Economic Modelling*, 38, 385–391. <http://doi.org/10.1016/j.econmod.2014.01.006>
- Dunne, S. S., & Dunne, C. P. (2015). What do people really think of generic medicines? A systematic review and critical appraisal of literature on stakeholder perceptions of generic drugs. *BMC Medicine*, 13, 173. <http://doi.org/10.1186/s12916-015-0415-3>
- Francis, A. J. J., Eccles, M. P. M., Johnston, M., Walker, A., Grimshaw, J., Foy, R., ... Francis, J.

- (2004). *Constructing questionnaires based on the theory of planned behaviour a manual for health services researchers*. Direct. <http://doi.org/0-9540161-5-7>
- Ghia, C., Jha, R., & Rambhad, G. (2014). Assessment of the impact of pharmaceutical advertisements on patient's drug consuming behavior: A questionnaire based survey. *Journal of Young Pharmacists*, 6(2), 58–63. <http://doi.org/10.5530/jyp.2014.2.9>
- Goh, S.-K., Ho, V.-T., & Jiang, N. (2016). The effect of electronic word of mouth on intention to book accommodation via online peer-to-peer platform: Investigation of theory of planned behaviour. *Journal of Internet Banking and Commerce*, 21.
- Grover, A., Citro, B., Mankad, M., & Lander, F. (2012). Pharmaceutical Companies and Global Lack of Access to Medicines: Strengthening Accountability under the Right to Health. *Journal of Law, Medicine and Ethics*, 40(2), 234–250. <http://doi.org/10.1111/j.1748-720X.2012.00661.x>
- Jannuzzi, F. F., Rodrigues, R. C. M., Cornelio, M. E., Sao-Joao, T. M., & Gallani, M. C. B. J. (2014). Beliefs related to adherence to oral antidiabetic treatment according to the Theory of Planned Behavior. *Revista Latino-Americana de Enfermagem*, 22(4), 529–537. <http://doi.org/10.1590/0104-1169.3578.2448>
- KledKapexhiu. (2015). Purchase intent descriptive facets. Integrating viewer response profile and the theory of planned behavior. *Proceedings of the Multidisciplinary Academic Conference*, 201–207.
- Ketchen, D. J. (2013). A primer on partial least squares structural equation modeling. *Long Range Planning*, 46(1–2), 184–185. doi:10.1016/j.lrp.2013.01.002.
- Kohli, E., & Buller, A. (2013). Factors influencing consumer purchasing patterns of generic versus brand name over-the-counter drugs. *Southern Medical Journal*, 106(2), 155–60. <http://doi.org/10.1097/SMJ.0b013e3182804c58>
- Mascherek, A. C., Gehring, K., Bezzola, P., & Schwappach, D. L. B. (2015). Using the theory of planned behaviour to model antecedents of surgical checklist use: a cross-sectional study. *BMC Health Services Research*, 15, 462. <http://doi.org/10.1186/s12913-015-1122-7>
- Mathew, P. (2015). Generic drugs: Review and experiences from South India. *Journal of Family Medicine and Primary Care*, 4(3), 319–323. <http://doi.org/10.4103/2249-4863.161305>
- Melrose, J., Perroy, R., & Careas, S. (2015). Constructing A Theory of Planned Behavior Questionnaire. *Statewide Agricultural Land Use Baseline 2015*, 1, 1–7.
- Republic of the Philippines. (2008). R.A. 9502 - An Act Providing For Cheaper And Quality Medicines, Amending For The Purpose Republic Act No. 8293 Or The Intellectual Property Code, Republic Act No. 6675 Or The Generics Act Of 1988, And Republic Act No. 5921 Or The Pharmacy Law, And For Oth.
- Ringle, C. M., Wende, S., and Becker, J.-M. (2015). "SmartPLS 3." Boenningstedt: SmartPLS GmbH, <http://www.smartpls.com>
- Rumsey, D. (2010). *Statistics Essentials For Dummies*. Director (2nd Editio). Hoboken, New Jersey: Wiley Publishing, Inc.
- Tan, E., Qing, S., & Teo, J.-L. (2015). Appsolutely-smartphones\_-Usage-and-perception-of-apps-for-educational-purposes-AJSoTL (1). *Asian Journal of the Scholarship of Teaching and Learning*, 55–75. Retrieved from file:///C:/Users/V3-571G/Downloads/Appsolutely-smartphones\_-Usage-and-perception-of-apps-for-educational-purposes-AJSoTL (1).htm
- Villejo, S. J., Enriquez, M. T., Melendres, M. J., Tan, D. E., & Cayton, P. J. (2014).

Determinants of Income Class in Philippine Households : Evidence from the Family Income and Expenditure Survey 2009, 63(2), 87–104.

Wakefield, M. A., Loken, B., & Hornik, R. C. (2010). Use of mass media campaigns to change health behaviour. *The Lancet*, 376(9748), 1261–1271. [http://doi.org/10.1016/S0140-6736\(10\)60809-4](http://doi.org/10.1016/S0140-6736(10)60809-4)

Wong, J. Q., Baclay, J. R. M., Duque, R. G., Roque, P. M. S., Serrano, G. K. T., Tumlos, J. O. A., ... Cochon, K. (2013). The Prevalence of Philippine Prescribing , Dispensing , and Use Behavior in Relation to Generic Drugs and their Risk Factors. *Philippine Journal of Development*, XL, Number, 125–159.