VIEWING GENERIC PRESCRIPTION MEDICINES IN AUSTRALIA – A CONSUMERS' PERSPECTIVE

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ABSTRACT

This paper investigates consumer perception on generic medicines in Australia. Specifically, it examines how consumer concern and consumer knowledge about counterfeit medicines influence attitudes towards generic prescription medicine and willingness to pay more for branded prescription medicines. A research model is developed together with an agenda of nine hypotheses that contain consumer concern, consumer knowledge, attitude towards PGM, willingness to pay more for branded PM, consumer trust in internet shopping, and likelihood not to purchase PGM from legitimate drug store or Internet. Theory of Reasoned Action (TRA) is used to explain the results based on the proposed research model in this study. Mail surveys are implemented to reach mature age population as the segment of the sample. Other relationship within the model and a number of implications for businesses will be discussed, suggestions for future research are reviewed and the main contributions of the study will also be delineated.

INTRODUCTION

The World Health Organization (WHO) estimates that up to 60% of drugs in some developing countries and up to 20% in some developed countries are counterfeits (Liang, 2006; WHO, 2010).More than 50 percent of medicines that purchased from Internet are counterfeit and some researchers suggest that currently 60 percent of online products are counterfeit or substandard (Howard, 2010). Internet has become a "grey" market for counterfeiters to reach consumers by using discount and greater discretion to attract consumers' attention (Howard, 2010). Counterfeit drugs result in significant health risks for patients who can cause long term detriments and even death (Moken, 2003; Liang, 2006; Lybecker, 2007). While there are many studies done in this area (e.g. Moken, 2003; Liang, 2006; Lybecker, 2007), there is a dearth of research from the consumers perspective (Bian and Veloutsou, 2007; Staake, Thiesse, and Fleisch, 2009; Veloutsou and Bian, 2008).

Counterfeit generic drugs have been found in developed countries (Liang, 2006; Lybecker, 2007; Lybecker, 2008). For example, China (PRC) has one of the highest incidences of counterfeit drugs (Moken, 2003; Lybecker, 2008; Wyld, 2008). There

are two overarching issues with respect to counterfeit drugs in China. First, consumers "unknowingly" purchase deceptive counterfeit drugs (Bloch et al., 1993; Liang, 2006). These can be defined as drugs sold as pharmaceutical company brand name drugs, usually at a much lower price. These drugs may (a) contain a lesser amount of the real drug's active ingredient (b) contain no active ingredient at all (c) compose of substances varying from talcum power to aspirin to poison (d) blatantly mimic the real drug, inclusive of the manufacturer's labels, pamphlets, and purity seals but are in fact fakes (Moken, 2003). Second, consumers are confused if "generic brands" of drugs are in fact counterfeits (d'Astous and Gargouri, 2001; Lybecker, 2008). As such, the growing consumer concern and the lack of consumer knowledge have led to less than favourable attitudes towards counterfeiting (Bang et al., 2000; Liang, 2006; Marcketti and Shelley, 2009). In a state of consumer confusion, these issues may lead consumers to willingly pay more for genuine drugs. It can also be postulated that consumers are more likely to purchase genuine drugs and develop a reluctance to buy generic brands even from legitimate pharmacies. In the context of this study, consumers in Australia also have the same issues with respect to counterfeit medicines as well.

RELEVANT LITERATURE, THEORY AND HYPOTHESES

There is no research has been conducted in Australia to identify consumer perceptions on generic prescription medicines but there is little research in generic medicines in some countries including Australia. Based on previous literature, most of researchers found the price of generic medicines in Australia are more expensive than other countries such as USA and New Zealand because of lack of competition in the market (Searles, Jefferys, Doran, and Henry, 2007; Medications cost more in Australia, 2009). Therefore, PBS changed generic medicine regulation to lower generic medicines prices in Australia by getting subsidy from the government. According to Hassali, Kong and Stewart (2006), some general practitioners in Melbourne still have misconception about safety and efficacy of generic medicines because there is not enough education from government and generic medicine industry for general practitioners. This will have negative influence to utilization of generic medicines in Australia in the future. Chua. Hassali, Shafie and Awaisu (2010) found that general practitioners in northern state of Malaysia have fundamentally accepted the use of generic medicines but they still have concern regarding the safety

and quality of generic products because there is not enough education for general practitioners from the government to assure about generic products approval system in Malaysia concerning quality and safety. Malaysia government should clarify all the uncertainties about generic products to gain trust from general practitioners about the quality and safety of generic medicines. Sharrad and Hassali (2010) have found that consumers in Iraq still difficult to accept the use of generic medicines because of lack of knowledge on generic medicines. Additionally, low price of generic medicine become the main reason for consumers in Iraq to consume generic medicines. Therefore, education is very important to correct misconception about generic medicines for consumers in Iraq. Developing countries (e.g. Iraq and Malaysia) and modern country (e.g. Australia) have the same issues about misconception of generic medicines for general practitioners or consumers. It shows that government and generic medicine industry must give education about generic medicines in the society to correct misconception of generic medicines.

To begin with, most generic medicine literatures only focus on general practitioners or pharmacists perception (Hassali, Kong, and Stewart, 2006; Hassali, Shafie, and Awaisu, 2010) but little research has done in consumer perception. Specifically, there is no study of consumer perspective in Australia about generic medicine. This gap can be considered to be done in this study to understand more consumer perception in generic medicine in Australia. Most of the researchers found that education is the most important factor that needs to be considered as there is misconception of generic medicine in consumer minds. Consumers also have confused about the difference between generic medicine and counterfeit medicine that lead consumer willingly to pay more for genuine medicine in the market (d'Astous and Gargouri, 2001; Lybecker, 2008).

Most of consumer perception studies about generic medicines are done in qualitative studies (Sharrad and Hassali, 2010; Chua, Hassali, Shafie, and Awaisu 2010). Therefore, empirical study will be considered in this study to analyze consumer perception by using research model to explain the causal relationship among all variables in the research model.

As mentioned earlier, more than 50 percent of medicines that sells on the Internet are counterfeit (WHO Facts, 2010). Therefore, consumer trust to purchase generic prescription medicines in internet shopping need to be studied to get better

understanding on why consumers still purchase medicine from the Internet although consumer should know the risk of it.

Theory of Reasoned Action – The theory of reasoned action (TRA) (Fishbein and Ajzen, 1975) suggests that people consider the consequences of alternative behaviours before engaging in them, and that they choose to perform behaviours they associate with desirable outcomes. In Fishbein and Ajzen's theory of reasoned action model, behaviours are determined by a person's intention to perform the behaviour. The model suggests that behavioural intent is derived from two factors: (1) attitude towards the behaviour; and (2) subjective norms or perceived social pressure associated with the behaviour. The TRA has been used to support theoretical framework in many consumer behaviour studies (Mowen and Minor, 1998; Lee and Littrell, 2005; Summers et al., 2006; Phau, Teah, and Lee, 2009). Therefore, the theory highlights that the best predictor of behavior is "intention". In this context of this study, consumer concern and consumer knowledge will act as beliefs or subjective norms that will affect willingness to pay more for branded prescription medicines as intention.

Consumer concern - When consumers believe that there is a certain problem and they are concerned, they are more likely to adapt to consumer behaviour practices to assuage or solve the problem (Hines et al., 1986; Marcketti and Shelley, 2009). It was found that the greater the knowledge and concern about issues within the industry, it was related to greater support for more socially responsible businesses (Dickson, 2000). Consumer concern in the counterfeiting context examines consumer concerns regarding labelling, the legitimateness of the supplier, the source of drug production, the country of origin, contamination of drugs, cost, penalties of being caught possessing counterfeit drugs, health risks, drug policy and regulations and effects of purchasing counterfeit prescription medicines (Moken, 2003; Liang, 2006). Therefore, it can be proposed that;

H1a*: Consumer concern about counterfeit medicine has a positive influence on the attitude towards generic prescription medicine.*

H1b*: Consumer concern about counterfeit medicine has a positive influence on the willingness to pay more for trade name (branded) prescription medicines.*

Consumer Knowledge - The term is the cognitive representation of product-related experience in a consumer's memory, which takes the form of a product schema and is likely to contain knowledge in the form of coded representations of brands, product

attributes, usage situations, general product class information, and evaluation and choice rules (Maheswaran, 1994; Marcketti and Shelley, 2009). Farhar (1996) states that consumer perceptions and preferences about the environment are influenced by both factual and faulty information. If consumers are more knowledgeable, they will have information that would better assist them in making their decisions. More knowledgeable consumers are also more willing to pay a higher price (Bang et al., 2000). In the context of TRA, it makes sense that heightened knowledge about counterfeit medicine would lead to stronger beliefs about the positive consequence or benefits of generic prescription medicine.

H2a*: There is a positive relationship between consumer knowledge about counterfeit medicines and attitude towards generic prescription medicines.*

H2b*: There is a positive relationship between consumer knowledge about counterfeit medicines and willingness to pay more for trade name (branded) prescription medicines.*

Attitudes towards generic prescription medicines (GPM) - Attitude towards the behaviour is stronger than attitudes towards an object as it will result in higher likelihood of purchasing. Attitudes are beliefs and perceptions of consumers. Some of the common beliefs and concerns about GPM are the quality and functionality aspects, the social consequences, and the legality of generic prescription medicines. These have been tested by other researchers to be the more common attitudes that consumers hold towards counterfeiting in general. The TRA proposes that attitudes towards a behavior are influenced by beliefs that the behavior leads to significant consequences. In this context of study, consumers with strong concern of positive consequence to not purchase counterfeit medicines were significantly more likely to indicate they would be willing to pay more to purchase trade name (branded) medicines (Bang et al., 2000).

H3*: There is a positive relationship between attitudes towards generic prescription medicines and willingness to pay more for trade name (branded) prescription medicines.*

Willingness to pay more for branded prescription medicines - The more that the consumer knows about the advantages of branded prescription medicines, they are more likely to pay more for it (Bang et al., 2000). The willingness to pay more is a relevant measure and reflects the attitude towards the behaviour of consuming generic prescription medicines. If consumers have stronger beliefs about the positive

consequences of purchasing genuine prescription medicines, they will have a higher willingness to pay more for the genuine prescription medicines. Higher willingness to pay more for genuine prescription medicines will also lead to higher likelihood to not purchase generic prescription medicines from a legitimate drug store or from the Internet.

H4a*: Willingness to pay more for trade name prescription medicines has a positive influence to the likelihood to not purchase generic prescription medicines from a legitimate drug store.*

H4b*: Willingness to pay more for trade name (branded) prescription medicines has a positive influence to the likelihood to not purchase generic prescription medicines from the Internet.*

Consumer trust in internet shopping - Trust can be defined as a set of specific relationship intention dealing primarily with integrity, benevolence, competence, and predictability of an Internet online retailer (Gefen, Karahanna, and Straub, 2003). Previous studies have shown that consumer generally will avoid shopping online if the online retailers cannot be trusted (Gefen, 2000; Jarvenpaa and Tractinsky, 1999). There is no study about consumer trust to purchase GPM in internet shopping that moderate willingness to pay more for trade name (branded) prescription medicines and the likelihood to not purchase generic prescription medicines from the Internet.

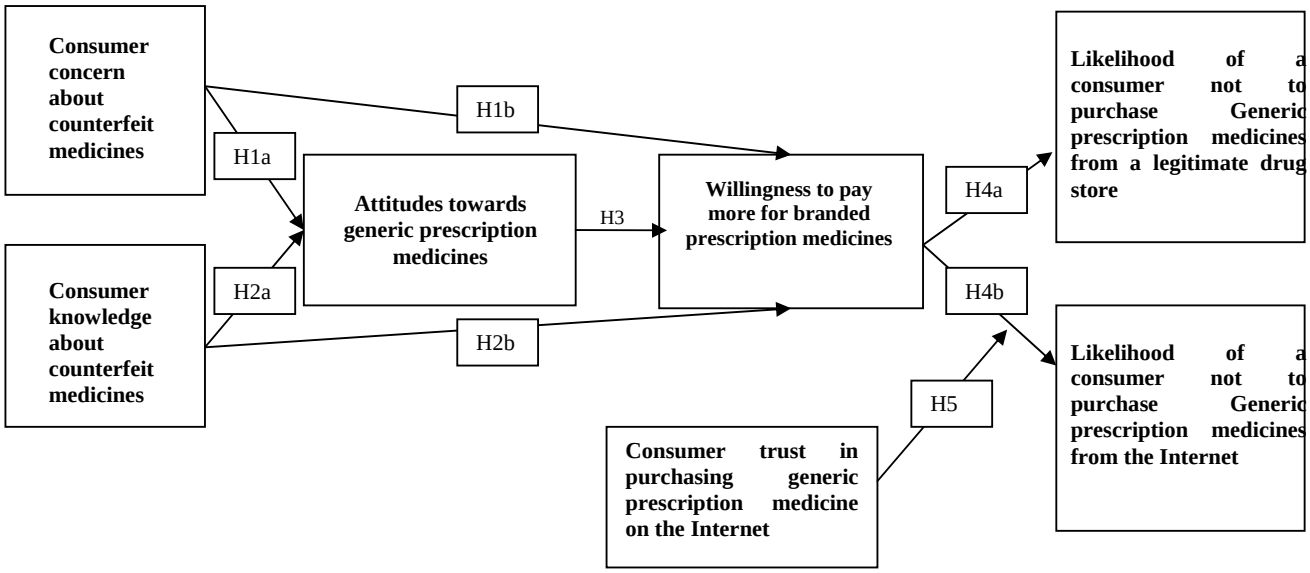
H5*: Consumer trusts in internet shopping is a moderation variable between willingness to pay more for purchase genuine prescription medicines and the likelihood for a consumer not to purchase generic prescription medicines from the Internet.*

CONCLUSION

The preceding literature review provides the basis for the proposed theoretical framework highlighting the consumer concern and consumer knowledge will affect consumers' attitude towards PGM and willingness to pay more for branded prescription medicines. In addition, the model also shows the effects that willingness to pay more for branded prescription medicines and consumer trust with the likelihood of a consumer to not purchase PGM from Internet or legitimate drug store. The next step of the study is to design a research methodology and test these proposed hypotheses.

The study offers a number of significant contributions. Theoretically, TRA will be introduced to develop a framework in which to examine consumer perception of PGM in Australia. Using the TRA, it will be one of the first studies in PGM to integrate a proven consumer behaviour model (Bang et al., 2000; Marcketti and Shelley, 2009). The most significant methodological contribution is the empirical method will be used in this study to fill in the research gaps and provide a more rigorous presentation. Additionally, SEM techniques approach will be used in this study as it is more appropriate technique for measurement and theory testing than traditional statistical techniques (Kline, 2005).. From a managerial perspective, education programs for consumers will be the "counter-measure" that leads the consumers to accept generic medicines in the market and correct the misconception about generic medicines. Particularly, government and generic medicine industry will work together to inform the benefit of generic medicines to consumers and government through online learning service or pharmacists consultation.

Figure 1: Research model of consumer perspective about generic prescription medicines



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