

# Consumer Behavioral Intention to use Complementary Alternative Medicine

Ummi Hana Omar <sup>1+</sup> and Lennora Putit <sup>2</sup>

<sup>1</sup> Universiti Malaysia Kelantan

<sup>2</sup> Universiti Teknologi MARA

**Abstract.** The aim of this paper is to propose a conceptual model to predict the behavioral intention to use Complementary Alternative Medicine. The key variables that could be utilized from Theory of Planned Behavior, Health Belief Model, and Identity were used towards the development of this conceptual model. Further, it attempted to integrate specific aspects of the Health Belief Model, and Identity construct in relation to behavior intention. The integration gives a complete view of this behavioral intention. The paper will extend the identification of the potential issues that may hinder or encourage the use of Complementary Alternative Medicine in Malaysia health care system. It is also believe to construct some recommendations to the Complementary Alternative Medicine service providers which might result in enhancing the effectiveness of the Complementary Alternative Medicine to the potential customers.

**Keywords:** attitude, behaviour intention, perceived benefit, perceived risk, identity.

## 1. Introduction

Complementary alternative medicine (CAM) is becoming recognized and widely practices in modern society. The issue of medical adulteration has attracted increased national awareness from the media, the medical community, governmental agencies, and the public. However, the shift of society needs and values in modern society like in the US has shown that CAM is well accepted as health practices (Eisenberg et al., 1998). They found an increase in the CAM usage from 36.3% in 1990 to 46.3% in 1997.

While previous research (i.e. Martin & Kulinna, 2004; O'Connor & White, 2009; Hirai et al.,2008) acknowledges the impact of attitude, subjective norm and perceived behavioural control (PBC) on people behaviour intentions, the majority of studies lack empirical research on specific medical product or service. The key factors such as identity (Stryker, 2007), perceived benefit (Glanz, Rimer, & Lewis, 2002), and perceived risk (Schiffman & Kanuk, 1994) that influence attitude and predict behaviour intention to use CAM have been considered independently. The objective of this paper is to propose a conceptual model that explains how these factors impact on people's intention to use CAM based on the behaviour intention from the Theory of Planned Behaviour (TPB). Figure 1 present the relationship between the user and non-user and its impact on the intention to use CAM by considering key constructs. Due to the space limitation only the first element of TPB 'attitude' will be discussed in this paper.

## 2. Literature Review and Conceptual Model

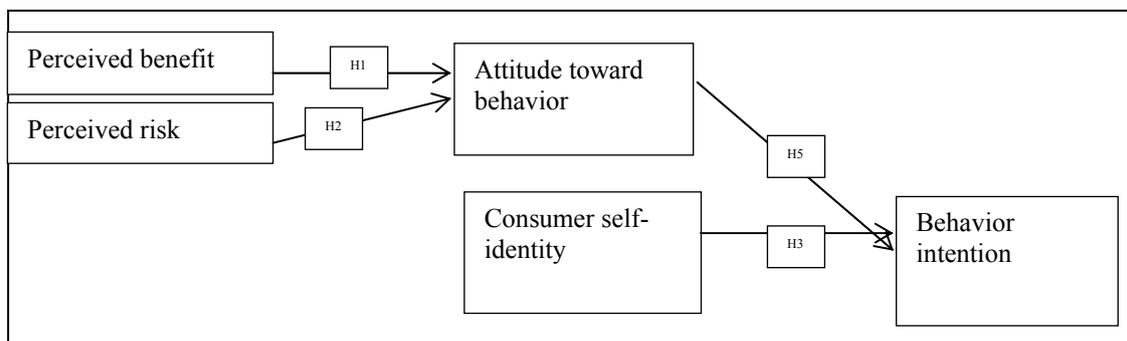


Fig. 1: Conceptual model

<sup>+</sup> Corresponding author. Tel.: + 6014-2325410  
E-mail address: ymmihana@yahoo.com

## 2.1. Perceived Benefit

Contributions Perceived benefit is defined as “an individual’s conclusion as to whether the new behaviour is better than what he or she is already doing” (Glanz et al., 2002, p.35). In this study, perceived benefits are the result of the valuation of the possibility of getting positive effects by using CAM.

It is a person’s opinion to reduce the risk of getting a disease by valuating a new treatment. When encountering with illness, some people tend to adopt a new behaviour such moving to healthier behaviours that will increase their chance of getting better. Would people use CAM if they didn’t believe it was beneficial? Perceived benefits play an important role in the adoption of secondary prevention behaviours, such as to engage with CAM. Thus, what makes some people undergo CAM and others not? (Glanz et al., 2002), since CAM requires long time to recover patients completely. However, regardless with the inconvenience, people might think that this is the best method to detect the disease and recover holistically.

Vos and Brennan (2010) indicates that the most reasons people choose CAM is too improve general well-being, the therapy helped in past, dissatisfied with conventional medicine, chronic health problem and stress-related condition. Harmon and Ward (2007) research has also shown that patients with serious medical conditions are high users of CAM procedures, most frequently in conjunction with traditional medical treatments. Among adult with functional limitation, women are more likely to use CAM (Okoroa et al., 2011). While a research in other domain, claimed that people perceived benefits of using a seat belt were significant predictor of self-reported seat belt use in both urban and rural roads (Şimşekoğlu & Lajunen, 2008). This finding is parallel to some previous finding indicating perceived benefit and barriers as strong predictors of some health behaviors such as cervical screening, and condom use (Byrd, Peterson, Chavez, & Heckert, 2004; White, 2004).

Subsequently, in a study of people intention to use homeopathy by Furnham & Lovett (2001), found that people who perceived advantage or benefit of CAM such as it will enrich health effects are more likely to use CAM. Other study by O’Connor & White (2009) also confirmed this finding, where the study suggests that people are more likely to intend to use CAMs when they believe that there will be some health benefits.

Consequently it is hypothesized that:

H1 Perceived benefit will have a significant influence on attitude to use of CAM.

## 2.2. Perceived Risk

All In consumer behavior literature, Schiffman and Kanuk (1994) identified six major types of risk in making product decision in term of loss: functional (performance) , physical (health & safety), financial (monetary investment), social, psychological (self-image) and time (effort & convenience) risk. They defined perceived risk as “the uncertainty that consumer face when they cannot foresee the consequences of their purchase decisions” (p. 183). It is the unpleasant result from the consequence of the consumer action. The greater the perceived risk, the greater the likelihood of engaging in behavior to decrease the risk (Glanz et al., 2002). Since the outcome of purchasing the product or service is unknown until it is consumed, the consumers perceive some degree of risk in making the purchase decision. Moreover, the amount of risk varies, depending on the person, the product, the situation and the culture (Schiffman & Kanuk, 1994). In this study perceived risks is the negative consequence associated with using CAM.

Harmon and Ward (2007) examined those who had never used CAM before. The found that these people will only use it if it is has been proven scientifically. It means, all CAM products must go through clinical test before it can be release to the public. The authors further explain, a common misconception among the public on herb products, is that herbs and other natural products have milder side effects than conventional medicine. These natural products are widely available from pharmacies, health food stores, supermarkets, by mail order, via the internet and other retailers. The products may be sold as tea, foods and supplements without proof of efficacy or warnings of side effect. As a result, such supplements are generally presumed safe until FDA reports adverse reactions. Natural medications are not always benign, and improper use may lead to serious health problems. From January 1993 to October 1998, the FDA received 2621 reports of serious incidences, including 101 deaths, linked to alternative medicines (Martin et al 2000).

Medicines and Healthcare products Regulatory Agency in the United Kingdom (2009) had release a serious risk posed by Traditional Chinese Medicine ‘Herbal Viagra’. They found undeclared pharmaceutical with high level of dangerous ingredients inside the medicine, which present a clear risk to consumer. Moreover, Lim & Thirumoorthy (2005) also reported about the serious cutaneous adverse reactions to traditional medicines (evidence from Dermatology Unit Singapore General Hospital) such as toxic epidermal necrolysis from traditional Chinese medicine, acute generalized exanthematous pustulosis from piroxicam and salicylate-contaminated traditional Chinese medicine, and drug hypersensitivity syndrome. Those patients took the prescription from traditional Chinese medical practitioners, known as ‘sinseh’.

Thus, it can be argued that people who viewed that CAM perceived greater risk will not likely engage in behavior that likely will harm them. Subsequently it is hypothesized that:

H2 Perceived risk will have a significant less influence on attitude to use of CAM.

### **2.3. Consumer self-identity**

Self-identity is “label people use to describe themselves” (Biddle, Bank, & Slaving, 1987, p. 326). Smith et al. (2008) had suggest to test the validity of self-identity for future research. Godin and Kok (1996) have addressed the extent to which self-identity might be a useful addition to the TPB. One domain in which self-identity might play an important role is that on consumer behavior (Conner & Armitage, 1998).

Identity theory (Stryker, 2007), explain the role of choice behavior. For example, the question of why one person takes his or her children to the clinic, while another person chooses to takes his or her children to the CAM practitioners. According to the theory, the choice of the person action and interaction are critically shaped by interpretations of the situations of action and interaction, and that interpretations are based upon shared meanings developing out of interactions with others. Thus, the question of “Who am I” from the person definition will lead to his or her self-identity.

They are many studies of self-identity relate to other than medical product or services. For example, in a study of buying preferred soft drink, the researchers found self-identity was a strong predictor to intention (Smith et al., 2008), role identity reflect the important of the student role identity in influencing decision making related to supplementary academic activities ( White et al., 2008) and the prediction of university student to eat healthy food also interacted with their identity (Louis, Davies, Smith, & Terry, 2007).

Only few researches such as Bishop et al., (2006) study the identity of people on CAM. They found a person who is having a strong illness identity was positively associated with use of all CAM types. However, they also found that there are people who use CAM regardless of the previous construct; instead they choose to use CAM because they are attracted to CAM. Who are they? What make CAM so attractive to them? What type of identity they possesses? Thus, this lack of empirical research of identity toward consumer behavior intention is deemed important for further research to understand who the actual or potential patients to CAM healthcare are.

Thus, it can be conclude that people appear to behave in ways that fit them and express their self-identity. Subsequently it is hypothesized that:

H3 Consumer self-identity will have a significant influence on intention to use of CAM.

### **2.4. Attitude toward behavior intention**

Self-identityAttitude can be expressed by the positive or negative evaluation about a phenomenon (Ajzen, 1991).Attitude depends on expectations of and beliefs in the personal impacts on the outcomes resulting from that behavior. It focuses on the perceived consequences of a decision (i.e. purchase decision) (Ajzen, 1991). Previous research has highlighted the relevance of holistic health beliefs in CAM use in general (Astin, 1998) and homeopathy use (Furnham & Smith, 1988).

Previous research on healthy eating, Wu et al. (2009) revealed teens have negative attitude when they were teased about their weight. While, Li et al. (2009) found that attitude towards behavior had a significantly positive relationship with behavior intentions. Moreover, it has been confirmed from previous study, that attitudes predict intention. For example, study of attitudes to buy healthy food (Tarkiainen &

Sundqvist, 2005) and to act in healthy way (Şimşekoğlu & Lajunen, 2008) have positive relationship with intention.

CAM is perceived as much healthier, natural, nontoxic, and safe than western medicine. Thus, the consumer's attitude to CAM purchase is naturally believed to be significantly related to the attitude to use CAM. Moreover, according to the TPB (Ajzen, 1991) the consumer is more likely to have the intention of purchasing CAM, when the consumer's attitude use CAM is favorable, hence the likelihood to engage will be significantly favorable. Subsequently it is hypothesized that:

H5: Individual's attitude will have a significant influence on their intentions to use of CAM

### 3. Acknowledgements

Thanks to Dr. Lennora Putit with her supervision.

### 4. References (APA 6<sup>th</sup>)

- [1] Ajzen, I. (1991). The theory of planned behavior. *Organization Behavior and Human Decision Processes*, 50(2), 179-211.
- [2] Anon. (2009). Serious health risk posed by Traditional Chinese Medicine 'Herbal Viagra'. Retrieved from [www.mhra.gov.uk](http://www.mhra.gov.uk)
- [3] Astin, J. A. (1998). Why patients use alternative medicine. Results of a national study. *Journal of the American Medical Association*, 279(19), 1548–1553.
- [4] Biddle, B., Bank, B., & Slavings, R. (1987). Norms, preferences, identities and retention decisions. *Social Psychology Quarterly*, 50,322-337.
- [5] Bishop, F. I., Yardley, L., & Lewith, G. T. (2006). Why do people use different forms of complementary medicine? Multivariate associations between treatment and illness beliefs and complementary medicine use. *Psychology and Health*, 21(5), 683–698.
- [6] Byrd, T. L., Peterson, S. K., Chavez, R., & Heckert, A. (2004). Cervical cancer screening beliefs among young Hispanic women. *Preventive Medicine*, 38(2), 192-197. doi: 10.1016/j.ypmed.2003.09.017
- [7] Conner, M., & Armitage, C. J. (1998). Extending the Theory of Planned Behavior: A Review and Avenues for Further Research. *Journal of Applied Social Psychology*, 28(15), 1429-1464. doi: 10.1111/j.1559-1816.1998.tb01685.x
- [8] Eisenberg, D. M., Davis, R. B., Ettner, S. L., Appel, S., Wilkey, S., Rompay, M. V., & Kessler, R. C. (1998). Trends in Alternative Medicine Use in the United States, 1990-1997. Results of a Follow-up National Survey. *JAMA*, 280(18), 1569-1575.
- [9] Furnham A, Lovett J. (2001), Predicting the use of complementary medicine: a test of the theories of reasoned action and planned behavior. *J Appl Soc Psychol*, 31(12):2588–620.
- [10] Furnham, A., & Smith, C. (1988). Choosing alternative medicine: A comparison of the beliefs of patients visiting a general practitioner and a homeopath. *Social Science and Medicine*, 26(7),685–689.
- [11] Glanz, K., Rimer, B. K., & Lewis, F. M. (2002). *Health Behavior and Health education* (3rd ed.). San Fransisco: Jossey-Bass.
- [12] Godin, G., & Kok, G. (1996). The Theory of Planned Behavior: A Review of Its Applications to Health-related Behaviors. *American Journal of Health Promotion*, 11(2), 87-98.
- [13] Harmon, S., & Ward, C. B. (2007). COMPLEMENTARY AND ALTERNATIVE MEDICINE AWARENESS AND ATTITUDES. *Academy of Health Care Management Journal*;, 3(1), 1-17.
- [14] Hirai K, Komura K, Tokoro A, Kuromaru T, Ohshima A, Ito T, et al. (2008). Psychological and behavioral mechanisms influencing the use of complementary and alternative medicine (CAM) in cancer patients. *Ann Oncol*,19(1):49–55.
- [15] Li, J., Mizerski, D., Lee, A., & Liu, F. (2009). The relationship between attitude and behavior an empirical study in China. *Asia Pacific Journal of Marketing and Logistics*, 21(2), *Asia Pacific Journal of Marketing and Logistics*. doi: 10.1108/13555850910950059

- [16] Lim, Y. L., & Thirumoorthy, T. (2005). Serious cutaneous adverse reactions to traditional Chinese medicines. *Singapore Med J*, 46(12), 714-717.
- [17] Louis, W., Davies, S., Smith, J., & Terry, D. (2007). Pizza and Pop and the Student Identity. *The Journal of Social Psychology*, 147(1), 57-74.
- [18] Martin, J. J., & Kulinna, P. H. (2004). Self-efficacy Theory and The Theory of Planned Behavior: Teaching Physically Active Physical Education Classes. *Research Quarterly for Exercise and Sport*, 75(3), 288-297.
- [19] O'Connor, E. L., & White, K. M. (2009). Intentions and willingness to use complementary and alternative medicines: What potential patients believe about CAMs. *Complementary Therapies in Clinical Practice*, 15(3), 136-140.
- [20] Okoroa, C. A., Zhaob, G., Li, C., & Balluza, L. S. (2011). Use of complementary and alternative medicine among USA adults with functional limitations: For treatment or general use? *Complementary Therapies in Medicine*, 19, 208-215.
- [21] Schiffman, L. G., & Kanuk, L. L. (1994). *Consumer Behaviour* (5th ed.). New Jersey: Prentice-Hall.
- [22] Şimşekoğlu, Ö., & Lajunen, T. (2008). Social psychology of seat belt use: A comparison of theory of planned behavior and health belief model. *Transportation Research Part F: Traffic Psychology and Behaviour*, 11(3), 181-191. doi: 10.1016/j.trf.2007.10.001
- [23] Smith, J., Terry, D., Manstead, A. S. R., Louis, W., Kotterman, D., & Wolfs, J. (2008). The Attitude-Behavior Relationship in Consumer Conduct: The Role of Norms, Past Behavior, and Self-Identity. *The Journal of Social Psychology*, 148(3), 311-333.
- [24] Stryker, S. (2007). Identity Theory and Personality Theory: Mutual Relevance. *Journal of Personality*, 75(6), 1083-1102.
- [25] Tarkiainen, A., & Sundqvist, S. (2005). Subjective norms, attitudes and intentions of Finnish consumers in buying organic food. *British Food Journal*, 107(10/11), 808-819.
- [26] Vos, L., & Brennan, R. (2010). Complementary and alternative medicine: shaping a marketing research agenda. *Marketing Intelligence & Planning*, 28(3), 349-364. doi: 10.1108/02634501011041462
- [27] White, K. M., Thomas, I., Johnston, K. L., & Hyde, M. K. (2008). Predicting Attendance at Peer-Assisted Study Sessions for Statistics: Role Identity and the Theory of Planned Behavior. *The Journal of Social Psychology*, 48(4), 473-491.
- [28] White, R. C. (2004). HEALTH BELIEF MODEL, CONDOM USE AND JAMAICAN ADOLESCENTS. *Social and Economic Studies*, 53(2), 155-186.
- [29] Wu, T., Blake, S. J., Floyd, M. R., Florence, J. E., Stoots, J. M., & Makamey, M. I. (2009). Intention for Healthy Eating Among Southern Appalachian Teens. *American Journal of Health Behavior*, 33(2), 115-124.