

INVESTIGATING THE RELATIONSHIP BETWEEN AUTO BODY POLICYHOLDERS DIMENSIONS OF PRICE SATISFACTION AND WILLINGNESS TO PAY (CASE STUDY: KARAFARIN INSURANCE COMPANY)

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ABSTRACT

Current work investigates relationship between auto body policyholders dimensions of price satisfaction and willingness to pay so that insurance companies can have more comprehensive understanding from dimensions of price satisfaction and its relationship to auto body policyholders willingness to pay using findings in this work. These findings can be applied on pricing decisions and activity of sale and marketing agents which influences retention of current customers and absorbing new customers. Matzler's standard questionnaire was used for collecting data related to price satisfaction. Direct survey in the form of open questions was used to extract willingness to pay insurance due to limitation for using other methods. 396 policyholders filled the questionnaire, and 368 questionnaires were analyzed after exclusion of incomplete ones. Spearman correlation test and multiple regression was used to test hypotheses and results suggest positive significant relationship between price satisfaction and its dimensions with autobody willingness to pay, however, these dimensions do not affect willingness to pay identically and price reliability has highest impact on willingness to pay for auto body policyholders.

Keywords: Dimensions of Price Satisfaction, Willingness to Pay, Auto Body Insurance

INTRODUCTION

Insurance industry is one of the main economic sectors of the countries and has its own tasks and functions. In our country, this industry should provide higher welfare for the society individuals by providing appropriate services. In fact, since insurance companies are regarded as non-profit organizations, they should pay attention to their specific customer, i.e. policyholder, because negligence to his demands and needs would lead to dissatisfaction with the company. In our country, it is more evident in auto body insurance area compared to other areas, since auto body insurance is a general insurance and policyholder satisfaction with this type of insurance causes that he insures his other assets and benefits in other areas by the same company.

Customer satisfaction is the key for customer retention (Dapkevicius and Melnikas, 2009). If customer satisfaction reaches to the maximum level, customer loyalty can be hoped and it is the customers which feel attachment and dependence on the organization and are considered as profitable and long-term assets for the organization (Gee *et al.*, 2008). Some authors found positive relationship between customer satisfaction and willingness to repurchase (Williams and Naumann, 2011; Anderson and Sullivan, 1993). Thus, identification of factors affecting customer satisfaction by the companies is necessary and inevitable. One of the factors affecting customer satisfaction is price satisfaction. If insurance companies can perceive price satisfaction aspects well, they can design their pricing and rating strategy in a more effective manner and customer price expectations would be met better. On the other hand, the companies should measure the money which the customer is willing to pay for a respective product or service in order to apply an appropriate pricing strategy for its products and services. Huber *et al.*, (2001) stressed presence of a positive relationship between satisfaction and willingness to pay (WTP) (Huber *et al.*, 2001). Homburg *et al.*, supported these results through emphasis on creating relationship between satisfaction and WTP over the time (Homburg *et al.*, 2005). Hence, current work attempts to investigate relationship between dimensions of price satisfaction of policyholders and their WTP to receive auto body

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insurance coverage and impact of these dimensions on WTP. To this end, literature related to price satisfaction and WTP is reviewed and research hypotheses and some other tests are examined.

Theoretical Foundations

Auto Body Insurance

Car insurance coverage includes third party insurance, passenger insurance, and auto body insurance. In auto body insurance, the special risks which are directly related to the car are covered and the vehicle, that its characteristics are accurately mentioned in insurance policy, is covered against damages due to accident, fire, and theft. Also, some risks such as theft of motor vehicle parts and accessories, compensation during repairs and glass break are covered in case extra premium is paid; but the damage caused by the revolution, strike, earthquake or volcano, or the result of an act of the policyholder's will are not covered (Karimi, 1997).

Price Satisfaction

Price is regarded as a main and influential element for influence of a product or service. However, having knowledge regarding customer perceptions and characteristics is needed for making proper pricing decisions (Munnukka, 2008). Existing literature in marketing indicates that customer satisfaction is the main guide in marketing (Gyau and Somogyi, 2012). Satisfaction may be achieved through economic and non-economic factors, since providing a logical and better price causes provision of economic reward for the consumer, while perceived appreciation and fair creates non-economic satisfaction (Boniface *et al.*, 2012), thus, satisfaction and price and its dimensions are crucially important in commercial relationships for the authors.

According to Matzler *et al.*, (2006), price satisfaction concept states that price plays key role in purchase decision making and purchase behavior process leading to consumer satisfaction. Price satisfaction is result of price fairness and price perception (Gyau and Somogyi, 2012). According to Matzler *et al.*, (2006), key role of price as a determinant in purchase and the process after purchase is well recognized, thus, price satisfaction influences purchase attitude of the consumer and helps development of loyal customers in long term. In fact, considering price satisfaction as a multidimensional structure provides better understanding of the customer's price satisfaction (Boniface *et al.*, 2012). Existing studies usually focus on one dimension of the price satisfaction and only small part of it focuses on the services (Matzler *et al.*, 2006).

Dimensions of Price Satisfaction

PRICE TRANSPARENCY (PT): today customers increasingly seek for honest and complete information about products and their prices, thus, price transparency can be considered as an important dimension in pricing policy (Dan and Silvia, 2008). In the process of seeking better price, customers and consumers seek for a clear, comprehensive, and easy outlook of the prices of the company and customers will be satisfied when they are provided with perfect and honest price information (Boniface *et al.*, 2012).

2-3-2: PRICE-QUALITY RATIO (PQ): Lam *et al.*, (2004) argue that customers describe value of a product or service based on their perception of two factors: paid price and received quality, or, in other words, price – quality ratio (Matzler *et al.*, 2006). According to Matzler *et al.*, (2006), if received quality is higher than the cost, the customer would evaluate the value as high and vice versa; hence, optimal price – quality ratio increases customer satisfaction (Gyau and Somogyi, 2012). The price can be used as a sign in evaluating the quality of a proposal and this effect would be less when the purchaser is familiar to the product or collection of products (Matzler *et al.*, 2006).

RELATIVE PRICE (RP): Matzler *et al.*, (2006) believe that customers compare the product or service price with competitors' price in purchase decision making process. If the customers perceive that the price is better than competitors' price, they would be satisfied and feel they are treated fairly (Boniface *et al.*, 2012). Therefore, relative price of the product directly affects customer satisfaction and constitutes one dimension of price satisfaction (Gyau and Somogyi, 2012).

PRICE CONFIDENCE (PC): price confidence responds to this question that to what extent the customers believe that currently offered price is optimal. Customers do not always process price information actively and widely, thus, their confidence in price may be a mental perception rather than result of wide

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information processing. Therefore, price confidence can be considered as separate dimension of price satisfaction (Dan and Silvia, 2008).

PRICE RELIABILITY (PR): while price confidence refers to customer beliefs on optimality of the prices, price reliability can be defined as realization of customer expectations on increased prices and preventing from negative surprises. Customer evaluates price reliability as high when there are no hidden costs, prices do not change unexpectedly, and if they change, the customers are properly and timely informed (Dan and Silvia, 2008). If price reliability is high, it causes trust and long term relationship which is one of the principles of relational marketing (Gyau and Somogyi, 2012).

PRICE FAIRNESS (PF): fairness is the foundation in every transaction and it is especially more evident in service area, since it is difficult for the customer to evaluates services prior to purchase and sometimes during the purchase (Martí n-Ruiz and Ronda n-Catalunã, 2008). Most studies found that price fairness or perceived price unfairness is one of the psychological factors which have significant impact on customer reaction to the price. Customers are not willingness to pay for price which they perceive as unfair. In fact, consumers would be satisfied with the price of a product if they believe that offered price is optimal and fair (Gyau and Somogyi, 2012). According to Varki and Colgate (2001), price fairness plays important role in customer satisfaction and retention (Bei and Chiao, 2006). Voss *et al.*, (1998) maintain that satisfaction is a function of price, efficiency, and expectations and compared to efficiency, fair price is the main determinant of satisfaction (Herrmann *et al.*, 2007).

Willingness to Pay (WTP)

Customers have maximum cost in every market which they are willing to pay for respective goods and services which is known as WTP (Braidert, 2006). Various concepts are used in marketing literature for studying customer reaction to the price. As part of price perception process, WTP is closer to judgment on price (reference price, acceptability of price), and it is associated to other variables which affect decision making process (satisfaction, loyalty) (Gall-Ely, 2009). Thus, customer’s WTP is a key factor which should be investigated and perceived by service providers to make decision on pricing (Bechwati, 2011).

WTP Measurement

There are various methods for WTP assessment, one type of which is shown in figure 1, and it will be described in the following.

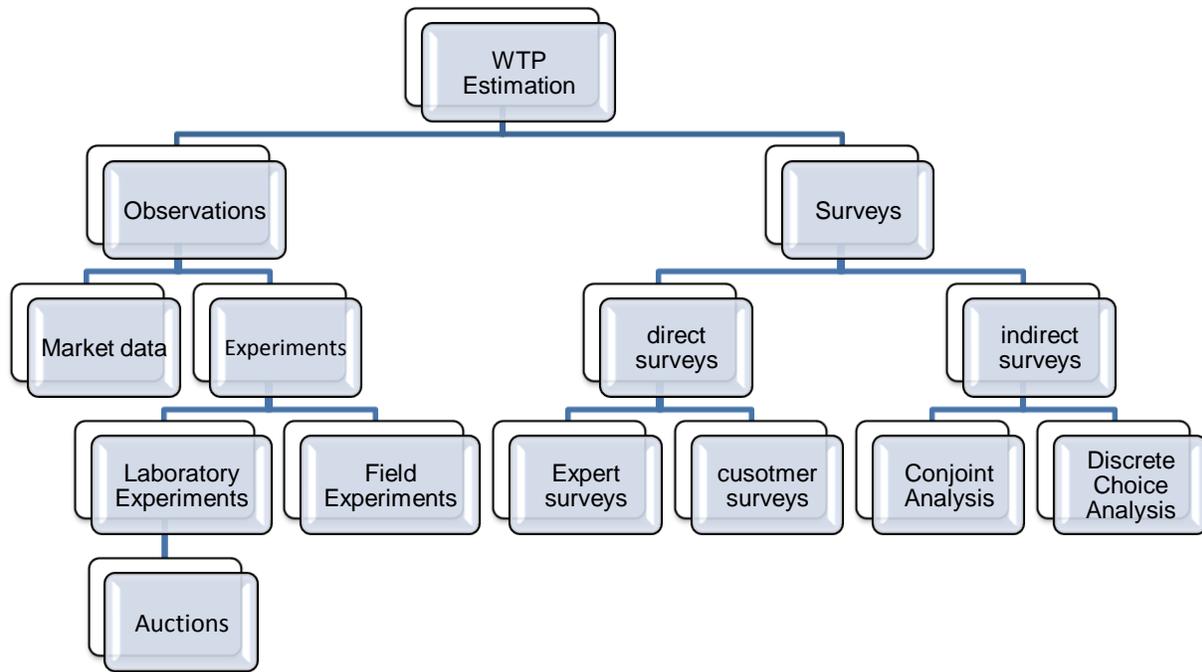


Figure 1: Classification of methods for estimation of WTP (source: Braidert, 2006)

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Surveys

INDIRECT SURVEYS: this method includes Conjoint Analysis and Discrete Choice Analysis.

- **Conjoint Analysis:** in this method, respondents should rank and scale products specifications, thus, contribution of specifications of different products and their value for general preferences can be assessed. This method has recently extended widely through Discrete Choice Analysis (Grunert *et al.*, 2009).

- **Discrete Choice Analysis:** in Discrete Choice Analysis, respondents make choice among alternative product profiles. This method is also considered as choice based Conjoint Analysis (Breidert *et al.*, 2006).

DIRECT SURVEYS: based on figure 1, direct surveys is divided into customer surveys and expert judgment.

-**Customer survey:** in this method, customer is directly asked for his WTP for the product or service. There is a maximum and minimum price for each product which can be inferred by direct survey of the customer (Breidert, 2006). Direct surveys provides useful information on WTP and it can be easily understood by non-experts, policy makers, and managers (Wedgwood and Sansom, 2003). Direct customer survey regarding price provides unnatural focus on the price which causes other characteristics of the product are neglected (Breidert *et al.*, 2006).

-**Expert judgments:** expert judgments saves time and cost compared to customer surveys. Sale or marketing managers are usually regarded as experts in customer WTP prediction (Breidert, 2006).

Observations

EXPERIMENTS: experiments for WTP assessment are classified into laboratory experiments and field experiments. In laboratory experiments, some money is given to individuals and they are asked to spend money for specific goods (Breidert *et al.*, 2006).

AUCTION: auctions are widely used in experimental economics to infer customer WTP. One of types of auctions is Vickrey auction. In Vickrey auction, the proposed amounts of multiple bidders for an item are collected. The person, who has higher price, receives the bid by paying proposed amount of money, which is in the second rank (Sichtmann and Stingel, 2007).

In this method, all people are motivated to disclose their real WTP, because if their proposal wins the auction, they should purchase the product in a real transaction (Wertenbroch and Skiera, 2002). However, collecting participants in the form of a group in a research center is somehow hard and cumbersome (Grunert *et al.*, 2009).

In field experiments, purchase occurs in a real shop and respondents may or may not be aware of the experiment depending on the conditions. This method has considerable costs compared to laboratory experiments (Breidert *et al.*, 2006).

MARKET DATA ANALYSIS: market data analysis (sale data) is used often for estimating demand curves. Using historical market data is based on the assumption that past demands can be used for predicting future market behavior (Breidert *et al.*, 2006).

Related Research

Although price satisfaction is one of the main customer satisfaction aspects, it has not received necessary attention in insurance industry compared to other aspects of customer satisfaction. Also, there is no study on the question that if customer perception of price satisfaction aspects influence his WTP in internal and external studies. Thus, some cases of related studies are described in the following.

Khosroshahi and Seyedmirzaee (2011) studies cultural and social factors affecting satisfaction of car insurance policyholders in Iran Insurance Company in Tehran, and their findings suggest training and participation of staff, observing regulations, staff technical information, access to communication networks, and use of internet and promotional environments by the customers, public culture and awareness of insurance and education level have all significant relationship to customer satisfaction.

Martin-Consuegra *et al.*, (2007) in a paper entitled Comprehensive Model of Price, Satisfaction, and Loyalty in Service Sector and Airline Industry in Spain and found price acceptance is directly influenced by satisfaction and loyalty. In addition, price fairness indirectly influences price acceptance through customer satisfaction and loyalty.

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Low *et al.*, (2013) studied relationship between customer satisfaction and price sensitivity in retail industry in Taiwan. Their findings indicate that regarding tangible products, satisfied customers are not searching for bargaining, because economic satisfaction and price sensitivity are negatively associated with each other regarding tangible goods, but the reverse is true for intangible services, because the relationship between price sensitivity and social satisfaction is estimated as positive.

Lymperopoulos *et al.*, (2013) examined price satisfaction role in customer relationship management in financial services. Data analysis indicates that customer tendency to change their current bank is influenced by their price satisfaction level and this influence is negative. Price satisfaction is positively influenced by price transparency, price – quality rate, relative price, price confidence and price fairness. In addition, information search has positive impact on price satisfaction.

Pinto *et al.*, (2009) conducted a study to identify factors affecting WTP in patients for inhaled insulin. They aimed at determining relationship between characteristics of patients and their WTP for inhaled insulin. Results of regression indicate that people income and their satisfaction predict their WTP. In other words, patients who are dissatisfied with their current insulin treatment and people with higher income are willing to pay higher costs for inhaled insulin product.

Adelnia *et al.*, (2010) measured WTP in Isfahan Social Security Organization for paying costs of expensive medical prescriptions using credit card. Regression results show that monthly income and education level has positive significant impact and household size has negative significant impact on WTP, but gender and age has no significant impact on WTP.

Dror *et al.*, (2007) studied WTP for medical insurance in poor and rural people in India in 2005. They found there is positive relationship between education and WTP, but family composition has no impact on WTP. Anyway people who underwent high medical costs and male respondents were more willing to pay compared to others.

Dong *et al.*, (2003) examined impact of gender on WTP in group insurance so that they can provide useful information for regulators of premium. Results indicate marital status considerably influences WTP in men, but it has not effect on women’s WTP. Education has positive impact only on men’s WTP. Residence in the city has negative impact only on women’s WTP. Age has negative impact on WTP in both men and women, and it is stronger in women. Income has positive impact on WTP in both men and women and its impact is stronger for men.

Research Conceptual Model

According to studies by Huber *et al.*, and Homburg *et al.*, it was specified that customer satisfaction influences customer’s WTP. However, specifically relationship between price satisfaction and its dimensions and customers’ WTP has not been studied in internal and external studies. Thus, current study aims at investigating relationship between price satisfaction and its dimensions and WTP in auto body policyholders. Conceptual model of current study is shown in figure 2.

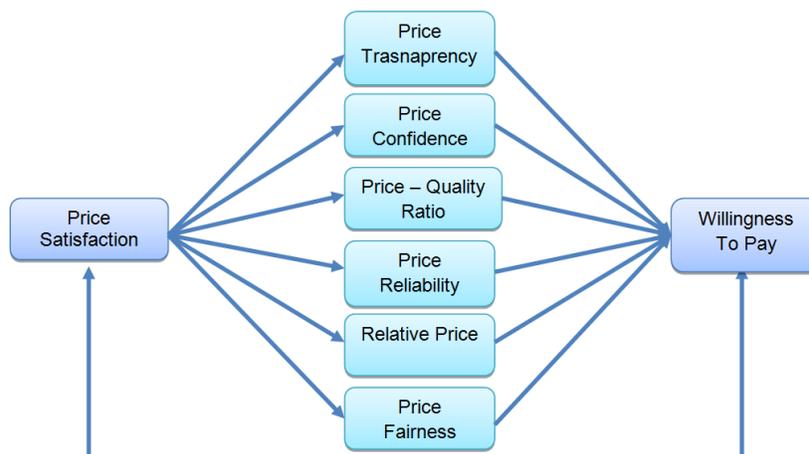


Figure2: Research Conceptual Model

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Research Hypotheses

Major Hypothesis

H1: There is significant relationship between price satisfaction and WTP in auto body policyholders.

Minor Hypotheses

H2: There is significant relationship between price transparency and WTP in auto body policyholders.

H3: There is significant relationship between price confidence and WTP in auto body policyholders.

H4: There is significant relationship between price – quality ratio and WTP in auto body policyholders.

H5: There is significant relationship between price reliability and WTP in auto body policyholders.

H6: There is significant relationship between relative price and WTP in auto body policyholders.

H7: There is significant relationship between price fairness and WTP in auto body policyholders.

H8: All dimensions of price satisfaction have identical impact on WTP in auto body policyholders.

MATERIALS AND METHODS

Methodology

Significant relationship between price satisfaction and its dimensions and WTP and identical impact of these dimensions on WTP was investigated in the current work. Research method is applied in terms of purpose and it is descriptive survey in terms of data collection.

Following focus on literature, the questionnaire was focused on three parts of demographic data, WTP of auto body policyholders, and their price satisfaction with their current body insurance. In the first part, some demographic characteristics of the respondents were asked. The second part was considered for extracting WTP of policyholders using direct survey and open questions. In the third part, 28 items were considered based on five-point Likert scale (totally disagree – totally agree) to measure auto body policyholders dimensions of price satisfaction.

Validity of the questionnaire was measured using content validity. In order to formulate the questionnaire, firstly related scientific and academic studies were reviewed, and initial questionnaire was formulated by guidance of expert professors and insurance industry experts. Then, by implementing pretest on respondents and applying necessary modifications, respected questionnaire was formulated to be used in insurance industry. Reliability of the questionnaire was calculated using Cronbach's alpha. Cronbach's alpha coefficient was calculated as 0.944 for the whole questionnaire and it was obtained as following for dimensions of price satisfaction:

price reliability: 0.717, price confidence: 0.864, price transparency: 0.734, price – quality ratio: 0.850, and price fairness: 0.801. Since all coefficients are above 0.7, the questionnaire has acceptable reliability.

Research statistical population includes people who prepared their auto body policy from Karafarin Insurance Co. in Tehran. After calculations, sample size was specified as 369. In order to collect data, 415 questionnaires were distributed among statistical population using simple random method, and 396 questionnaires were returned. Finally, 368 questionnaires were analyzed using SPSS software.

RESULTS AND DISCUSSION

Finding

Descriptive Statistics

Results obtained from demographic statistics of the respondents indicate that 64.70 percent of respondents are female and 35.30 percent are males. In terms of education, 22 percent have high school diploma and lower, 17.9 percent have associate degree, 43.5 percent have BA degree, 13.30 percent have MA degree, and 3.30 percent have PHD degree. In terms of income, 13 percent of respondents have income level lower than 700,000 Toman, 23.60 percent have income level between 700,000 – 1,500,000 Toman, 33.40 percent have income level between 1,500,000 – 2,500,000 Toman and 29.90 percent have income level above 2,500,000 Toman. In terms of age range, 6.5 percent of respondents were younger than 25, 49.5 percent were between 26 – 35, 20.7 percent were between 36 – 45, 15.8 percent were between 46 – 55, and 7.6 percent were older than 56 years old.

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Inferential Statistics

It should be noted that current premium of people had considerable impact on their declared WTP; relative WTP (as percent of current premium) was used in testing hypotheses in order to obtain reliable results.

Testing Hypothesis

A: Testing Major Research Hypothesis

In order to investigate relationship between price satisfaction and WTP, Spearman correlation test with 99 percent confidence and error level below 1 percent was used, results of which are given in Table 1. Assumptions in this test include as follows:

Null Hypothesis: There is significant relationship between price satisfaction and WTP in auto body policyholders. $H_0: \rho = 0$

Alternative Hypothesis: There is no significant relationship between price satisfaction and WTP in auto body policyholders. $H_1: \rho \neq 0$

Results in Table 1 indicate there is significant relationship between price satisfaction and WTP in auto body policyholders. Thus, first hypothesis is supported with 99 percent confidence.

Table 1: Relationship between price satisfaction and WTP – Spearman correlation test

| Correlation between i^{th} variable and j^{th} variable | Relationship Extent | Sig. Level | Conclusion |
|---|---------------------|------------|-----------------------------------|
| price satisfaction and WTP | 0.813(**) | 0.000 | There is significant relationship |

B: Testing Minor Research Hypotheses

In order to investigate relationship between dimensions of price satisfaction and WTP, Spearman correlation test with 99 percent confidence and error level below 1 percent was used, results of which are given in Table 2. As observed, all dimensions of price satisfaction are significantly related to WTP, thus, hypotheses 2 – 7 are supported with 99 percent confidence.

Table 2: Relationship between dimensions of price satisfaction & WTP -Spearman correlation test

| Correlation between i^{th} variable and j^{th} variable | Relationship Extent | Sig. Level |
|---|---------------------|------------|
| price transparency and WTP | 0.696(**) | 0.000 |
| price confidence and WTP | 0.716(**) | 0.000 |
| price – quality ratio and WTP | 0.731 (**) | 0.000 |
| price reliability and WTP | 0.578 (**) | 0.000 |
| Relative price and WTP | 0.613 (**) | 0.000 |
| price fairness and WTP | 0.670 (**) | 0.000 |

Relationship is mutual in correlation test and regression is used to specify influence of one variable on the other one. Thus, stepwise regression was used to test H8, results of which are given in Tables 3 and 4. The results are described in the following:

- Variables included in the stepwise regression equation include: price –quality ratio, price transparency, price reliability, price fairness, relative price, and price confidence, thus none of research variables were excluded which suggests influence of all dimensions of price satisfaction on WTP.
- Multiple correlation coefficient (R): it indicates strength of relationship between dependent and independent variables. Considering Table 3, this coefficient is reported as 0.848 which suggests strong linear relationship between dimensions of price satisfaction and WTP.
- Coefficient of determination (R²): coefficient of determination in this work was estimated as 0.719. It means that variables included in the equation describe about 72 percent of changes related to WTP variable. This coefficient represents suitability of model fit.
- Adjusted coefficient of determination (R².ad): this coefficient represents square of adjusted correlation which is estimated as 0.714 in this work. This criterion is more real than R², since it does not increase

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necessarily by increased number of independent variables, while R2 is a function of model’s independent variables.

- Durbin – Watson statistics (DW): it represents non-correlation between model errors. This statistics should be set within 1.5 to 2.5 so that regression can be used, which is 2.025 in this work.

- One-way analysis of variance (ANOVA): since significance level of this test (0.000) is smaller than error level, with confidence level 0.95 at least one of dimensions of price satisfaction has linear relationship with WTP.

- Non-standard regression coefficient (B): results indicate that regression coefficient of price – quality ratio variable is 1.343, price transparency variable is 1.530, price reliability variable is 1.973, price fairness variable is 1.974, relative price variable is 0.736, and price confidence is 1.048. thus, based on Table 4, multiple regression equation is as Relation 1:

$$WTP = 14.606 + 1.343 (\text{price – quality ratio}) + 1.530 (\text{price transparency}) + 1.973 (\text{price reliability}) + 1.974 (\text{price fairness}) + 0.736 (\text{relative price}) + 1.048 (\text{price confidence}) \quad (\text{Relation 1})$$

- Standardized regression coefficient (Beta): according to findings from multiple regressions, beta for price – quality ratio variable is 0.175, beta for price transparency variable is 0.187, beta for price reliability variable is 0.217, beta for price fairness variable is 0.205, beta for relative price variable is 0.125, and beta for price confidence is 0.125. Since scale of variables is identical in standardized regression coefficient, the variables can be compared. Thus, price reliability and price fairness are more influential on WTP variable compared to other dimensions. For example, per one unit change in price reliability variable, 0.217 changes occur in relative WTP, which is more than other dimensions. Also, t statistics and its significance level indicate that these coefficients are significant at error level 5 percent. Thus, H8 is rejected with confidence 95 percent.

Table 3: Results of multiple regression analysis related to effect of dimensions of price satisfaction on WTP

| | |
|---------------------------------------|-----------------------------|
| Multiple correlation coefficient | R = 0.848 |
| Coefficient of determination | R ² = 0.719 |
| Adjusted coefficient of determination | R ² .adj = 0.714 |
| Durbin - Watson statistics | DW = 2.025 |
| One-way analysis of variance | ANOVA = 154 |
| Significance level | 0.000 |

Table 4: Coefficients of multiple regression analysis test related to effect of price satisfaction aspects on WTP

| Independent Variable | Non-standardized coefficients B | Standard error | Beta standardized coefficient | t statistics | Sig. level |
|-----------------------|---------------------------------|----------------|-------------------------------|--------------|------------|
| Constant | 14.606 | 4.156 | | 3.514 | 0.000 |
| Price – quality ratio | 1.343 | 0.406 | 0.175 | 3.304 | 0.001 |
| Price transparency | 1.530 | 0.373 | 0.187 | 4.102 | 0.000 |
| Price reliability | 1.973 | 0.321 | 0.217 | 6.155 | 0.000 |
| Price fairness | 1.974 | 0.436 | 0.205 | 4.525 | 0.000 |
| Relative price | 0.736 | 0.230 | 0.125 | 3.199 | 0.002 |
| Price confidence | 1.048 | 0.443 | 0.125 | 2.369 | 0.018 |

Side Research Tests

A: Impact of Demographic Variables on WTP

Demographic variables are factors that their impact on WTP has been examined in most studies. Tables 5, 6, and 7 indicate stepwise multiple regression results for measuring impact on income, age range, gender,

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and education variables on WTP. Coefficient of determination (R²) in table 5 indicates that demographic variables included in the regression equation could describe about 31 percent of WTP changes. Also, since significance level of ANOVA test is smaller than 0.05, there is linear relationship between demographic variables and WTP with 0.95 confidence. On the other hand, results in Table 6 show that among demographic variables in this work, only income and education variables affect WTP and age and gender variables are excluded from the equation which suggests lack of significant impact of age and gender on WTP. According to standardized Beta coefficient in Table 6, income influences WTP more than education. Based on Table 6, Relation 2 can be inferred for WTP (I = income and E = education):

$$WTP = -245400/972 + 156412/468I + 104848/941E \quad (\text{Relation 2})$$

Table 7 gives beta, t statistics, sig. level, partial correlation and minimum tolerance factor for age and gender variables which were excluded. Beta In is standardized regression coefficient and t statistics and its significance level are used to examine null hypothesis which states there is no linear relationship between dependent and independent variables. If significance level is smaller than 0.05, then the coefficient is considered as significant and null hypothesis is rejected. Partial correlation includes correlation of each independent variable with dependent variable after elimination of linear effect of variables previously present in the model. Minimum tolerance factor specifies that to what extent the independent variable is predicted by other independent variables.

Table 5: Results of multiple regression analysis test to measure demographic factors affecting WTP

| WTP | |
|---------------------------------------|-----------------------------|
| Multiple correlation coefficient | R = 0.553 |
| Coefficient of determination | R ² = 0.306 |
| Adjusted coefficient of determination | R ² .adj = 0.302 |
| One-way analysis of variance | ANOVA = 80 |
| Significance level | 0.000 |

Table 6: Coefficients of multiple regression analysis test to measure demographic factors affecting WTP

| Independent Variable | Non-standardized coefficients B | Standard error | Beta standardized coefficient | t statistics | Sig. level |
|----------------------|---------------------------------|----------------|-------------------------------|--------------|------------|
| Constant | - 245400.972 | 58275.165 | | -4.211 | 0.000 |
| Income | 156412.468 | 15971.153 | 0.430 | 9.793 | 0.000 |
| education | 104848.941 | 15050.948 | 0.306 | 6.966 | 0.000 |

Table 7: Variables excluded in regression equation

| Independent Variable | Beta In | t statistics | Sig. level | Partial correlation | Min. factor | tolerance |
|----------------------|---------|--------------|------------|---------------------|-------------|-----------|
| Gender | -0.082 | -1.820 | 0.070 | -0.095 | 0.930 | |
| Age | 0.088 | 1.927 | 0.055 | 0.100 | 0.907 | |

B: Ranking Dimensions of Price Satisfaction

Friedman analysis of variance is used for ranking variables under study, if they have rank and relative scale or if they are somehow abnormal. Thus, this test was used to rank dimensions of price satisfaction. Table 8 gives mean rank of dimensions and chi square statistics as well as calculated degree of freedom and significance level.

H0: There is no significant difference in mean rank of dimensions of price satisfaction.

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H1: There is significant difference in mean rank of at least two dimensions of price satisfaction.

Table 8: Ranking dimensions of price satisfaction– Friedman test

| Dimensions | Mean Rank | Chi-Square Statistics | Degree of Freedom | Sig. Level |
|---------------------|-----------|-----------------------|-------------------|------------|
| Price transparency | 3.93 | 963.321 | 5 | 0.000 |
| Price confidence | 2.72 | | | |
| Price-quality ratio | 4.66 | | | |
| Price reliability | 2.15 | | | |
| Relative price | 5.31 | | | |
| Price fairness | 2.24 | | | |

Considering obtained output, sig. level (0.000) is smaller than standard (0.05). Thus, null hypothesis is rejected with 95 percent confidence. As mean ranks indicate, relative price is in highest rank and price reliability is in lowest rank.

Conclusion

Research Summary

A: Discussion and Conclusion

According to the different foundations and theories in customer satisfaction area, significance of paying attention to dimensions of price satisfaction in the organizations is perceivable. Following data analysis using Spearman correlation test in SPSS software, the major research hypothesis was supported at 99 percent confidence level. Considering results of this test (significant correlation as 0.813) it can be stated there is positive significant relationship between price satisfaction and WTP in policyholders, and even it can be concluded this relationship is strong. It is consistent with findings by Huber *et al.*, (2001) on hoteling services and findings by Homburg *et al.*, (2005) which found positive relationship between customer satisfaction and WTP. On the other hand, investigation of data related to dimensions of price satisfaction and relative extracted WTP and using Spearman correlation test, H2 to H7 were supported at confidence level 99 percent. Thus, six dimensions of price satisfaction are positively and significantly related to WTP of policyholders. However, stepwise multiple regression test was used to test H8. Obtained results suggested stronger influence of price reliability on WTP more than other dimensions. Therefore, H8 is rejected. Results of multiple regression test for examining demographic variables impact on WTP indicate that income and education have significant impact on WTP, but age and gender have no significant impact on WTP. These findings are consistent with findings by Adelnia *et al.*, (2010) which found positive impact of income and education on WTP and lack of impact for age and gender on WTP. It is also consistent with findings by Dror *et al.*, (2007) which found positive relationship between education and WTP, Dong *et al.*, (2003) and Pinto *et al.*, (2009) which found positive relationship between income and WTP. On the other hand, Friedman test results show that relative price has highest rank among dimensions of price satisfaction.

B: Recommendations

- Considering obtained results, insurance companies should attempt to provide reliability and confidence for the policyholders, do not receive hidden and side costs from them so that all elements of premium are clear and understandable for them, and they know for what services they pay and which services they are to receive. Also, the price taken from policyholders should be fitted to the quality of provided services so that price satisfaction is created in policyholders. Satisfied customers are willing to pay higher price for products and services of a company, thus obtaining customer's price satisfaction guarantees profitability for the company.

-Results indicate that price reliability has highest influence on WTP of auto body policyholders. Policyholders trust in price when the prices do not change unexpectedly and if they change, the customers are informed timely so that they can receive their compensation if there is any loss and damage. Hence, insurance companies should attempt to absorb trust of their customers.

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- Although relative price has highest contribution in describing price satisfaction of policyholders, most respondents believe that prices of this company are not the lowest price compared to other companies, hence in current competitive conditions, the insurance companies should attempt to reduce their insurance costs as much as possible so that they provide lower prices than their competitors and they are able to retain their current customers by imposing possible discounts.
- Most respondents believed that people with any income level are not able to purchase auto body insurance, thus it is suggested that insurance companies provide facilities to sell auto body insurance in installment manners. It is useful for retaining current customers and absorbing new ones, since one of the main barriers for insurers to Insurance extension and buying insurance is lack of sufficient liquidity.
- Since testing impact of demographic variables on WTP of auto body olicholders it was specified that education and income have positive significant impact on WTP, insurance companies can consider this factor in their marketing programs.

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