



**Perceived control and behavioral intents: unravelling their influence on willingness to pay, purchase intentions and prices paid across genders under a PWYW setting.**

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**ARTICLE  
INFO**

**ABSTRACT**

**Keywords:**  
*External reference price (ERP),  
Perceived power/control,  
Purchase-intention,  
willingness to pay (WTP) and gender*

An emerging participative pricing mechanism known as Pay-what-you-want pricing strategy has been found to be very effective in creating a hype amongst customers and earning high marginal profits. Many studies have been conducted in the past to find out the different factors which affect the success of PWYW pricing strategy. The provision of an external reference price or an anchor price has been studied, but in most cases when a higher ERP is provided it triggers back and results in less profitable outcomes. Our study has concluded that higher ERP must be provided in a such a way that the perceived behavioral control of the participants is not disturbed, as perceived behavioral control highly affects the behavioral intents of the participants such as purchase intention. Business can also simply target individuals with higher perceived behavioral control and provide a higher ERP and can increase purchase intention. The prices participants are willing to pay are highly affected by gender. It was found that the price estimates of females as compared to males were significantly greater. Hence, the successful provision of a higher ERP depends on the perceived control of the participants in generating more purchase intention and the gender that will be willing to pay more under a pay what you want setting are females.

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Received: 8th January 2026

Received in revised form: 25<sup>th</sup> March, 2026

Accepted: 26th March, 2026

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## **Introduction**

Pay what you want pricing strategy is a form of participative pricing mechanism in which the buyer can pay any price they want even including zero. This type of pricing mechanism works on the assumption that there exists a non-selfish behavior in the market and there are different forces that govern the actions of the buyers like fairness and reciprocity. PWYW pricing strategy has been used by many firms as a promotional activity and for charity purposes. It has been found that the same charitable treatment under PWYW basis created more profitable results and was found out that when buyers were given a chance to participate in the charitable giving process, they tended to pay more and the term ‘shared social responsibility’ was coined (Ayelet Gneezy U. G., 2010). Many restaurants and museums have used this approach to seek attention (e.g., Wrigley Mansion and Brooklyn Museum etc.). The famous English band known as the Radiohead offered one of its albums on PWYW basis and reached 2 million downloads with profit margins significantly larger than if they had offered a fixed price mechanism (J Raju, 2010). Research has shown that customers/buyers usually pay positive amounts for the product or offering even if they can pay zero and the seller cannot reject the offer. This shows that market does not always function as per the neoclassic assumption that consumers will always seek to maximize their personal satisfaction. As experiments in the behavioral game theory have also seen many outcomes in which the dictator or the powerful party leaves something for the counterpart even though the counterpart cannot reject the offer unlike the ultimatum game. This typical scenario in the game theory is known as the dictator game in which the dictator can make any offer and the counterpart cannot reject and has to accept under any circumstances (Thaler, 1995). Based on this tendency of people to act fair the PWYW pricing strategy can increase the profits and relative turnover of the firm. The assumptions of PWYW pricing mechanism can also be backed by the Equity theory which states that when an individual observes inequity between him/her and his colleague/peer then they will try to minimize the inequity so that the situation is now fair in their perspective. But not only perceived fairness but other factors like service and customer satisfaction, social norms, value provided by the product, perceived image of the seller and income levels can influence the buyers to pay positive amounts under PWYW basis (Stegemann, 2013).

## **Problem Statement:**

Extensive research has been done in participative pricing models in recent times with PWYW pricing strategy being a center of attraction as all authority is shifted towards the customers (Roy, 2015). As the price determination is completely shifted towards the customers, the sellers must execute the transaction with care in order to avoid losses (Yong Chao, 2015). In order to guide the



customer to pay a fair price an anchor price is provided by the seller in the form of external reference prices, but in most cases this ERP has triggered back as the customer believes ERP to be a part of manipulation (Jennifer Wiggins Johnson &, 2013). It all happens because the basic purpose of a PWYW strategy is to shift the power to the customer and by providing an ERP the customer may perceive that he has lost the power. Therefore, the ERP has to be provided in such a manner that the customer feels that he has complete control over the transaction and is in power; this control then leads towards profitable outcomes (Aaron C. Kay, 2009). And as seen in the dictator game (Behavioral Game theory) the powerful counterpart (dictator) will leave some profits for the weaker counterpart (Matthias GREIFF, 2017). It has already been established that perceived control influences behavior We need to examine that how perceived power/control mediates the role of ERP in generating a positive purchase intention and willingness to pay under a PWYW strategy. It also needs to be examined that which customer are willing to pay more under PWYW setting so that the customers are targeted carefully. For our study we are going to examine the difference between the prices paid by male and female customers as there is a lot of difference in the decision-making process of males and females.

#### **Research Objectives:**

1. To find out the mediation effect of perceived control/power on the relationship of external price reference with purchase intention. Such that if the customer's perceived power/control is high than ERP will produce more purchase intention and if it is low, than it might produce negative/lower purchase intention under a pay what you what setting.
2. To find out the mediation effect of perceived control/power on the relationship of external reference prices with willingness to pay. Such that if the customer's perceived power/control is high than ERP will produce more willingness to pay and if it is low, than it might produce negative/lower purchase intention under a pay what you what setting.
3. Finding out the difference in the prices paid under a pay what you want setting between males and females.

#### **Research Questions:**

1. Does perceived power/control mediate the effects of External reference prices on purchase intention?
2. Does perceived power/control mediate the effects of External reference prices on willingness to pay?
3. Is there a difference in the prices paid by males and females under a pay what you want setting?



### **Significance of the study:**

This study seeks to find out why the provision of an external reference price sometimes triggers back and produces negative results. Studies have shown that there is a significant gap, and less work is done on the perceived power of the customers in a PWYW setting, let alone the effects of perceived power in mediating the role of ERP in producing positive purchase intention and willingness to pay. Moreover, extensive research has been done on how the decision-making process of males and females is significantly different as supported by the empathizing-systemizing theory which divided males and females into rational and emotional beings respectively. Based on this theory we aim to seek the difference between the prices paid by males and as fairness and reciprocity concerns determine the intentions, prices paid and willingness to pay under PWYW setting.

### **Literature Review**

In this research, the Theory of Planned Behavior, Compensatory Control Theory, and Anchoring Theory are integrated to examine the impact of external reference prices on consumer behavior in the context of the PWYW scheme. The role of ERP as the basis of cognitive judgments of value is explained by the Anchoring Theory, while the Theory of Planned Behavior argues that perceived behavioral control plays a critical role in determining behavioral intentions, including purchase intention and willingness to pay. The role of ERP in the context of the PWYW scheme, however, may also undermine the consumer's perception of autonomy, as proposed by the Compensatory Control Theory.

Based on this integration, the notion of perceived control is proposed as a psychological process through which the effects of ERP are converted into behavioral outcomes. More specifically, the non-manipulative nature of ERP is proposed to positively influence perceived control, which subsequently boosts the effects of PI. In contrast, the manipulative nature of ERP is proposed to negatively influence perceived control, which subsequently dampens the effects of PI. In this manner, the notion of perceived control is theoretically positioned as a mediator between ERP and behavioral intentions (PI and WTP).

### **Role of ERP on Purchase intention and Willingness to pay:**

Majority of people rely on external cues in their decision-making process i.e purchases (Roy, 2015). These external reference prices work as an external cue or as an anchor price based on which customer decide what prices to pay. This idea is supported by the anchoring effect theory, that people will be



influenced in making their judgements by the information provided to them beforehand (Adrian Furnham<sup>1</sup>, 2011). It has been shown in different studies that these anchor prices or external reference prices influence the prices chosen by the buyers in the direction of the reference price provided (Jennifer Wiggins Johnson &, 2013).

### **Mediating effect of perceived power/control (between ERP-PI & ERP-WTP)**

One of the key human motivations has been to be in control and sustain it (Kelley, 1971). This desire for being in control as stated by the compensatory control theory, emerges from the under rooted fear of ‘randomness and chances’ taking control of major life events and outcomes; a fear that they might make important life decisions instead of them. This *compensatory control theory* states that people dislike the idea of a random world and yearn for order and structure in their day-to-day life and want to restore order to this overall randomness either by exerting their own power or relying on an external authority or deity (Aaron C. Kay, 2009). People use perceived power to maintain a sense of control. Building on this underlying theory, the theory of planned behavior states that this perceived control highly influences consumer behavioral intentions such as purchase intention and willingness to pay (Ajzen, 1991). Buyers see ERP as a form of manipulation creating ambiguity and fear of risk. It was found that not providing an external reference price might be more profitable than providing one in case of maximum and minimum reference prices, which shows a fear of manipulation and made the buyer feel less in control (Jennifer Wiggins Johnson &, 2013). But by increasing the perceive control of the consumer, positive purchase intentions and willingness to pay are produced (Marvello Yang<sup>1</sup>, 2024). The ambiguity about the value in a PWYW setting which is formed by an external reference price is mitigated by perceived power as the buyer feels more in control of their decisions mediating the effects of ERP-PI and ERP-WTP.

### **Role of Gender on Prices paid:**

According to the empathizing-systemizing theory; men and women significantly differ in behavioral responses. Such that males are more systemized and are influenced by cognitive factors, while women are more empathetic and are influenced by emotional factors. As has been seen in the study conducted by (Jianping Xue, 2020) that, perceived competence a ‘cognitive factor’ will generate more purchase intention for male; and, perceived warmth an ‘emotional factor’ will generate more purchase intention for females as compared to males. It has also been established that gender moderates the relationships of attitudes, subjective-norms and perceived behavioral-controls with green purchase intention. It was found that all these factors generated more purchase intention for females than males (Naman Sreena,



2018). The difference in intent to purchase between male and female was also studied by (Jacques Nel, 2009) for online music downloads. It was found that for females perceived trust and self-efficacy had a stronger relationship with the online buyer's intent to purchase, while the relation of perceived enjoyment with intent to purchase was higher for men. In another study the relationship of experiential marketing and purchase intention was found to be moderated by gender differences (Liang, 2013). It was found that women relate and sense experience had a positive impact on purchase intention of customers. According to the study conducted by (Abubaker Shaouf, 2016) online purchase intention will be directly affected by the WDVC (Web-design visual cues: cognitive factor) for men. Which is also supported by the empathizing-systemizing theory and the visual rhetoric theory. Perceived behavioral control being a cognitive factor in the theory of planned behavior (Ajzen, 1991), is supported by the empathizing-systemizing theory to have a stronger relationship with males as compared to females. Females being emotional beings are driven more by fairness and reciprocity concerns and hence will tend to pay more under a PWYW setting.

Although previous literature indicated gender-based differences in decision-making behavior, recent literature cautions against simplistic dichotomies, for example, “males as rational” and “females as emotional.” Gender-based differences in the context of PWYW can be explained in terms of differences in social preferences, fairness, and prosociality concerns. According to empirical research, females may be found to have stronger concerns for fairness and reciprocity in participative pricing, which might affect willingness to pay. Therefore, a more nuanced and evidence-based approach, as opposed to previous literature, will be adopted in this research, where gender-based differences are proposed as context-based variations in behavior, as opposed to fixed psychological constructs.

### **Empirical Review:**

(Ju-Young Kim, 2009) describe PWYW pricing as a participative pricing mechanism in which the whole price determination is shifted towards the final buyer and the price that the buyer determines has to be accepted by the seller and the transaction is closed, unlike NYOP (Name-Your-Own-Price) the seller cannot reject the price if the buyer offers a price below the cost threshold. In their study (Ju-Young Kim, 2009) found out using three field studies that consumers not always act rationally as the traditional theories of economics have suggested such as the neoclassic theory. Although the buyers had the power to maximize their personal satisfaction by offering the lowest price or no price at all, the prices they paid were significantly greater than zero as per their study. It has been found out that PWYW can significantly increase the effectiveness of CSR related activities. Because when firms take any CSR initiatives, the customers believe that there may be some ulterior motives involved; hence, they are



reluctant to participate. Also, the participation of consumers in the CSR initiatives doesn't signal that they themselves also support the cause, but it also signals that the consumer is simply in need of the offered product or service.

But when the CSR initiative is taken along with a participative pricing mechanism such as the PWYW pricing mechanism, then the power of price determination is shifted towards the customers and the firm is left vulnerable. By doing so the perceived ulterior motives in case of CSR are eliminated and the customers can also fully express their involvement in the social cause by paying significantly positive amounts even when they could have paid none (Ayelet Gneezy U. G., 2010). By using a 2x2 factorial design (Ayelet Gneezy U. G., 2010) in their field study in a large amusement park, they found out that when charitable component was introduced with PWYW strategy, the profits maximized. But interestingly it can also be seen that in PWYW + Charity condition fewer people decided to purchase and forego the opportunity as compared to the simple PWYW condition. As it has already been established that PWYW works based on the assumptions of prosocial behavior and non-selfish behavior in the market. And to find out what causes people to act non-selfishly (Ayelet Gneezy U. G., 2012) conducted 3 field experiments in which they found out that people choose to act non-selfishly in order to maintain a just and fair image. In their amusement park experiment they found out that when giving the opportunity to buy an equally good picture of themselves on a roller coaster on PWYW basis and being able to contribute for a charitable organization all at the same time, the prices paid were five times greater than the normal PWYW condition but the purchase rate was significantly lower than PWYW without charitable component. The results indicate that people didn't want to pay less for an equally good picture and contributing in charity, therefore they simply forego the opportunity and didn't purchase at all. People tend to act non-selfishly based on self-image concerns.

People believe that the right thing to do is to pay for a service or good that has been offered to them. Although the customer had the power to pay nothing at all in all three studies conducted by (Ayelet Gneezy U. G., 2012) the companies retained their profits and did not incurred loss. Although PWYW has seen to be yielding prices significantly larger than zero. But it was seen in the study conducted by (Gravert, 2017) that repeated purchases will have decreasing effect on the price paid under PWYW basis. The research was conducted in a charitable bookstore, where two shelves were designated under the PWYW scheme. (Gravert, 2017) found out that the social distance between the buyer and seller significantly affects the price paid under PWYW basis. She found out that when membership card holders were reminded of their membership, they significantly paid a larger price as compared to those who weren't reminded. This question had no effect on non-members. Although the study is limited as to



why reminding the members about their membership yielded larger prices, but it can be concluded based on the study of (Ayelet Gneezy U. G., 2012), that members when reminded of their membership were more inclined to act fairly based on self-signaling and image concerns, due to their past interactions with the store/storeowner. (Lihua, 2011) in their study also pointed out that, in order to get the most out of the PWYW pricing strategy, charitable component can be introduced [similar to the studies of (Ayelet Gneezy U. G., 2010) (Gravert, 2017)], reference prices can be set; either external or internal (Jennifer Wiggins Johnson &, 2013). PWYW is an emerging concept that requires a deeper understanding of the fair behavior of the consumers and the way to enhance the fair behavior of the consumers towards the companies during PWYW, thus increasing distributive justice. According to the research study (Chu, 2012), fairness is the key concept that companies should consider. In previous studies, the focus has been on the fair action of the companies towards the consumers whereas this research work focuses on the fair action of the consumers towards the businesses.

Series of experiments have been conducted in which 5 experiments are conducted to examine the fair behavior of the consumers towards the company in terms of PWYW. The results of this research study indicate that the consumers who do not have any obligation to be fair to the company, still show fair behavior towards the companies. It is because there exists a self-signaling for such consumers to act fairly. It has been portrayed that as a dictator game in behavioral economics, a similar pattern is shown with the price paid distribution. It has been recommended through this study that consumers can be given cues about adopting the actions that are socially correct that influence them to exhibit fair action towards the companies. Some of the consumers show unfair behavior because they perceive that all other consumers are doing the same way. Another research study has been conducted, (Roy, 2015) that emphasis on the pricing of PWYW. This research states that when there is the presence of external cues regarding the pricing, then there will be a drive for the consumers as the willingness to pay (WTP) with internal reference price (IRP) of the consumers. There lies a positive relationship between willingness to pay and internal interference price. Two moderating variables have been used such as price consciousness and involvement. The consumers are free to pay any amount in absence of cues of external pricing in the consumer setting of PWYW as this also included paying nothing. For extending the research study, a paper and pencil survey had been conducted with a sample size of 300 students of the Australian university in which around seventy percent of the respondents belonged to the 19-28 years of age group. For analysis of the data, hierarchical multiple regression was used. The results indicate that in the relationship of IRP-WTP, the involvement variable strengthens this relationship where this is weakened by price consciousness, in the context of everyday pricing. But in the context of PWYW, it

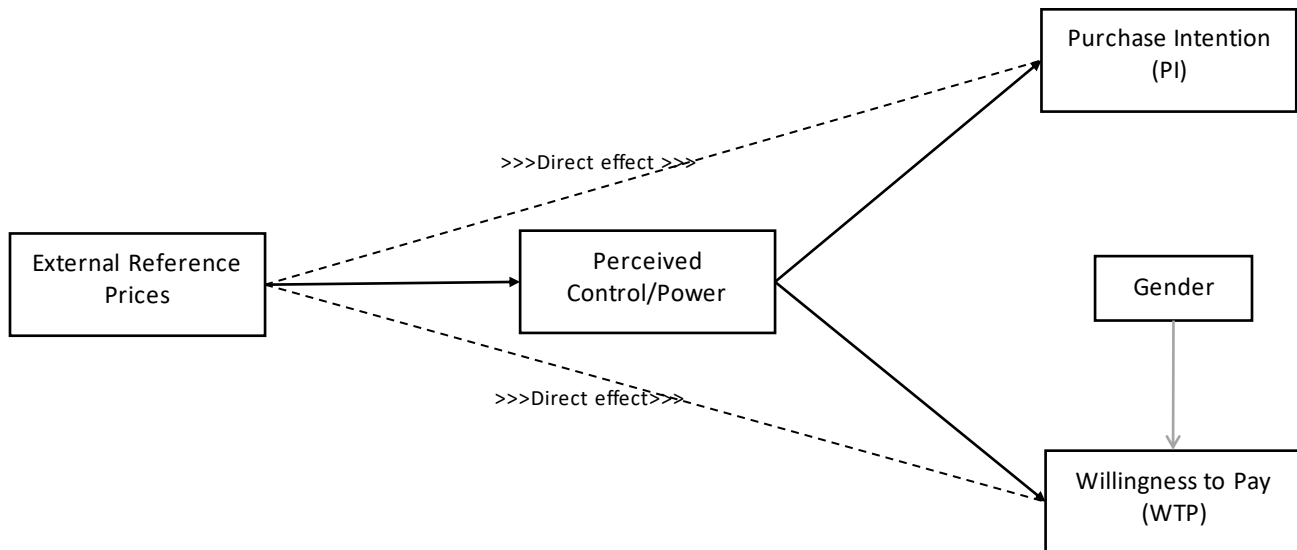


was analyzed that the relationship of IRP-WTP was weakened with the price consciousness and involvement and this reduces the willingness to pay of the consumers. It has been implicated that to enhance the higher returns of the businesses that follow PWYW, the managers should work on the branding, segmentation, and experience of the product. By using the framework of the game theory, it has been found out that PWYW is one of the most significant strategies for businesses. It is because it enhances the profits of the company when it uses the PWYW strategy as compares to the strategy of the fixed pricing to all the customers. The increased profitability of the company also improves Pareto. The conditions are driven from two parameters of cost, such as for seller there is the marginal cost parameter and for consumer, there is the parameter of social preference. This incorporates the considerations of the behavior that pay less in comparison to the reference price. It has been analyzed in this research (Yong Chao, 2015) that in the case of the low marginal cost, the pricing strategy of PWYW is considered more profitable in the equilibrium and this encourages and influences the consumers to do the voluntary payments. Since the last decade, PWYW has gained huge popularity and has gained huge attention of the practitioners of marketing and multiple businesses.

There are varying conditions of the PWYW under which it functions and makes the companies generate profit. There are certain conditions in which PWYW is superior to the normal fixed pricing system so this means that PWYW is not profitable in all the conditions. So, the research study of (Fernando Machado, 2013), provides a theoretical model in which it is demonstrated that when consumers have an option of PWYW pricing, then they usually pay voluntarily. There are three major independent behavioral factors on which PWYW profitability is dependent, such as the concern of reciprocity, fairness motives of consumers, and extent of bias showing the favor in the system of fixed pricing. Under PWYW pricing, these behavioral factors are characterized to show their impact on the profits under such pricing. In this era, different companies are working on different pricing strategies to create their unique positioning in the minds of the consumers. Different hypotheses have been formulated and for the testing of these hypotheses, two studies have been conducted to support or reject these hypotheses, the first study is a lab experiment and the second one is an online experiment. As a sample, fitness gym has been taken for this research study, (Sharma, 2016). So, it was found with these studies that there is not any direct effect of the purchase motivation and social visibility but between these manipulated variables, hypothesized interaction was found and with ERP three-way interaction was also found. No significant difference in the IRP allocation exists between the public and private or under the varying motivation of the purchase's influence. But in the situation of the public under altruistic and extrinsic motivation, and private under intrinsic motivation, a greater IRP proportion was

allocated by the consumers. These differences are weaker in the ERP presence and prominent in the ERP absence.

Conceptual Framework:



According to the conceptual framework, ERP has an impact on perceived control, which, in turn, has an impact on purchase intention and willingness to pay, with gender being a grouping variable for WTP.

## **Hypotheses**

- H1: The external reference price is a significant factor influencing the consumers' perceived control/power.
- H2: Consumers' perceived control/power has a significantly positive effect on purchase intention.
- H3: Consumers' perceived control/power has a significantly positive effect on willingness to pay.
- H4: Perceived control/power will mediate the relationship between the external reference price and purchase intention.
- H5: Perceived control/power will mediate the relationship between the external reference price and willingness to pay.
- H6: Gender has a significant influence on the consumers' willingness to pay, such that there exists a significant difference between the prices paid between male and females.

## **Research Methodology**

### **Research Approach**

The relationships between the variables in this study have been well established and have been supported by different theories. Extensive study and theories support the idea that there exists a difference between the decision-making process of males and females and as per the empathizing-systemizing theory which



classifies males as rational beings and females as emotional beings, males make decisions based on rationality while females base their decisions on emotional factors. It has also been found and supported by theory of planned behavior that perceived control highly influences behavioral intentions. This study seeks to incorporate these theoretical relations in a PWYW setting and tries to explain that whether these relationships exist in a PWYW setting or not. Thus, this study takes an explanatory approach.

### **Research Design**

For this study a survey was conducted in which respondents were exposed to higher external reference price as compared to the actual price of the product with this higher ERP being the independent variable. The mediating effects of perceived power/control were measured for its effects of ERP on PI and WTP. The difference in prices paid by males and females was also measured. Semi-structured questionnaire was used to conduct this study with ERP, PI and PCP measured with close ended questions on a five-point Likert scale and WTP measured by an open-ended question.

### **Sampling Design**

#### **Target population:**

The target population was mainly undergraduate students falling mostly under the age of 21 to 30 years of age living in Karachi and studying at local universities of Karachi. The overall population included people from 21 to 40 years of age with some less than 21 years.

#### **Sample Size:**

The sampling size of the population was 202 respondents, with a total of 103 female respondents and 99 male respondents which was enough to adequately represent both genders equally. A sample size of 202 was enough to generate robust results while using AMOS for finding the mediating effects.

#### **Sampling Technique**

The sampling technique which was used is Stratified random sampling in order to ensure that both genders males and females have an equal chance of being selected. This sampling method is necessary because our research problem seeks to find the differences across gender, therefore we needed an equal representation of both genders in our study.

#### **Instrument of Data Collection**

A questionnaire was used for data collection which includes 5 items for perceived control (Kim & May, 2025), 2 items for external reference prices (Hsin-Hui Lin, 2022) , 3 items for purchase intention (Fei L. Weisstein, 2016) measured on a 5 point Likert scale ranging from strongly disagree to strongly agree and 1 open ended question for willingness to pay .



### **Perceived Control items:**

1. Others have little to no say regarding what I do.
2. Others' opinions do not stop me from how I would act or behave.
3. I have a feeling that I could freely choose to do whatever I want.
4. I have full control over what I do.
5. I can ignore others when I make my decisions.

### **External Reference Price items:**

The ERP will be manipulated for two different groups. First group will be given a low ERP and the second group will be given a higher ERP. The ERP will also be measured by manipulation check items to see whether the respondents are aligned with the fact that they have been exposed to a lower or higher anchor price. These items have been taken from (Hsin-Hui Lin, 2022)

*For group 1: (Lower ERP)*

1. I think the suggested price is low as compared to the practical cost.
2. I think the sale price of this product is low as compared to its actual sale price.

*For group 2: (Higher ERP)*

1. I think the suggested price is high as compared to the practical cost.
2. I think the sale price of this product is high as compared to its actual sale price.

### **Purchase Intention:**

1. If I were going to buy this product the probability of buying this product is very high.
2. The probability that I would consider buying this product is very high.
3. The likelihood that I would purchase this product is very high.

These items have been taken from (Fei L. Weisstein, 2016)

### **Willingness to Pay:**

If I had the opportunity to buy the product here and now, I would be willing to pay Rs \_\_\_\_\_".

Willingness to pay is measured by an open-ended question taken from (Xu)

### **Procedure of Data Collection**

For the study to provide accurate results the sample product must be a gender neutral and a well-known product with which the respondents have interacted previously and already have product knowledge about it in order to deduce whether the suggested price being offered is higher or lower. The data was collected from the residents of Karachi Pakistan mainly the students and employees of different regional universities. The data was collected equally from male and female respondents to ensure both groups



have equal chances of representation and the results are accurate for across gender study. An online questionnaire along with survey forms was developed for survey using the platform “google forms” and face to face response collection. The data was collected primarily through a survey and no existing data from pre-existing sources was used in this study.

### **Statistical Technique**

SPSS and SPSS AMOS was used for this study. Descriptive statistics, Cronbach alpha for reliability, runs test for randomness, skewness and kurtosis for normality and Confirmatory factor analysis was done for model fit and AVE and Composite reliability were also calculated. Independent samples t-test was used to find the difference between prices paid by males and females. Structural equation modelling was used to find the mediation effects.

### **Results and Findings**

#### **Descriptive Profile of the Data**

After conducting the research survey using the developed questionnaire, data was collected from a total of 202 respondents. It was found that out of the 202 respondents 103 (51%) respondents were female and 99 (49%) were male respondents. 40(19.8%) respondents were less than 21 years of age, 161(79.7%) of respondents fell under 21 to 30 age group and 1(0.5%) respondent was of 31 to 40 age group, therefore the respondents were mainly young adults under 21 to 30 years of age. Out of the 202 respondents 11(5.4%) had an education level of intermediate/A level, 182(90.1%) were undergraduates and 9(4.5%) were graduates, therefore most of the respondents 90.1% were undergraduates. The respondents by occupation were mainly students 162(80.2%), 20(9.9%) were employees and 20(9.9%) had their own business.

Therefore, the respondents represented in this study were both male and female respondents represented equally and were mainly undergraduate students falling mostly in the age group of 21 to 30 years of age. They were selected because the sample product to conduct this study was Nuplex Cinema movie ticket (regular seat) which is a famous entertainment point for the people of Karachi and the carefully selected respondents all had previous experience of Nuplex cinema.

The variables reported in this study were External reference price with a mean score of 4.26 and a standard deviation of (SD=0.49), and perceived control/power with a mean score of 3.61 and a standard deviation of (SD=0.80). purchase intention with a mean score of 3.38 and standard deviation of (SD=0.74), and lastly Willingness to pay which had a mean score of 1080 with a standard deviation of (SD=435.78).



### **Validation of Model**

For model validation different metrics were used due to the complexity of the model. For reliability statistic Cronbach Alpha and composite reliability were used, runs test was used to check for randomness and skewness and kurtosis were used for normality. Validity was measured by average variance extracted (AVE), and the fitness of CFA model was reported by CFI and RMSEA.

Composite reliability for purchase intention is 0.599, which is lower than the recommended level of 0.70, thus indicating possible issues that may affect the construct's internal consistency. The AVE values for all constructs ( $>0.70$ ) are very high for a behavioral construct and may point to possible problems, such as redundancy, overestimation, etc. It is recommended that the AVE values be recalculated. The runs test is not commonly used in any research that utilizes the structural equation method for behavioral studies and does not contribute anything meaningful for the assessment of construct validity, so its interpretation should be avoided.

**External reference price** with confidence level of 95% ( $M=4.26$ , CI 95% [4.19, 4.33,  $SD=0.49$ ]) had a Cronbach Alpha value of  $\alpha=0.834$  which is highly reliable. Runs test for randomness showed a value of asymptomatic sig (2-tailed) = 0.000, Kurtosis value of -0.263 and skewness of 0.120 show that the data is normal and generalizable. Average variance extracted  $AVE=0.847$  which is greater than 0.7 shows strong validity between items. Composite reliability of  $CR=0.718$  shows that the construct is internally consistent and reliable.

**Purchase intention** with confidence level of 95% ( $M=3.38$ , CI 95% [3.27, 3.48,  $SD=0.74$ ]) had a Cronbach Alpha value of  $\alpha=0.813$  which is highly reliable. Runs test for randomness showed a value of asymptomatic sig (2-tailed) = 0.3, which shows that Purchase Intention is random and predictions can be made for purchase intention. Kurtosis value of 0.078 and skewness of -0.231 shows that the data is normal and generalizable. Average variance extracted  $AVE=0.773$  which is greater than 0.7 shows strong validity between items. Composite reliability of  $CR=0.599$  shows that the construct is internally consistent and reliable.

**Perceived Control/power** with confidence level of 95% ( $M=3.61$ , CI 95% [3.50, 3.72,  $SD=0.80$ ]) had a Cronbach Alpha value of  $\alpha=0.844$  which is highly reliable. Runs test for randomness showed a value of asymptomatic sig (2-tailed) = 0.858, which shows that PCP is random and predictions can be made for PCP. Kurtosis value of 0.811 and skewness of -1.041 show that the data is normal and generalizable. Average variance extracted  $AVE=0.857$  which is greater than 0.7 shows strong validity between items. Composite reliability of  $CR=0.735$  shows that the construct is internally consistent and reliable.



**Willingness to pay** with confidence level of 95% (M=1080.90, CI 95% [1020.44, 1141.36], SD=435.78). Runs test for randomness showed a value of asymptomatic sig (2-tailed) = 0.077, which shows that WTP is random and predictions can be made for WTP. Kurtosis value of 1.775 and skewness of 0.536 show that the data is normal and generalizable. Other measures of reliability and validity were not taken as willingness to pay was recorded as an open-ended question and was only a single item question.

**Table 1**

Variables	Cronbach Alpha	Randomness	Normality			
			Skewness	Kurtosis	AVE	C.R
External Reference Price	0.834	0	.120	-.263	0.847	0.7185
Perceived Control/Power	0.844	0.858	-1.041	.811	0.857	0.7355
Purchase intention	0.813	0.3	-.231	.078	0.773	0.599
Willingness to Pay	-----	0.077	.536	1.775	-----	-----

The fitness of the model was found by doing confirmatory factor analysis on Amos. The Chi-square value of 12.51 suggested that the minimum value was achieved, probability level was 0.326 which is greater than 0.05 which is required for a good fitted model. Further indications were found by RMSEA value of 0.026 which is less than 0.06, and CFI value of 0.997 which is greater than 0.8 both also suggested that the model was a good fit.

### **Hypotheses Testing**

Structured equation modelling was used to find the mediation effects of perceived control/power between external reference price and purchase intention, and external reference price and willingness to pay. The model was a good fit (Probability=0.295, RMSEA=0.022, CFI=0.989). It was found that the direct effects of external reference price on perceived power/control were significant with a sig value= 0.024 which is less than 0.05 (SE=0.113, Estimate=0.255). The direct effects of perceived power/control on purchase intention were significant with a sig value= 0.007(SE=0.065, Estimate=0.175). The indirect effects of external reference price on purchase intention were not significant with sig value=0.152(SE=0.105, Estimate=-0.151) which is greater than 0.05. The indirect effect of ERP on purchase intention was found to be statistically non-significant (p = 0.152). In the context of mediation effects, a statistically significant indirect effect needs to be present for the mediation effect to exist. Hence, the H4 cannot be supported. Also, no mediation effect can be confirmed. Although the direct paths were statistically significant (ERP → perceived control and perceived control → purchase intention), the non-significance of the indirect path points to a partial theoretical linkage.



Furthermore, the direct effects of perceived power/control on willingness to pay were found insignificant with sig value= 0.641(SE=38.73, Estimate=18.055), also the indirect effects of external reference price on willingness to pay were insignificant with sig value of 0.717(SE=62.92, Estimate=22.83). Hence, it was found that perceived power/control does not mediate the effects of external reference price on willingness to pay.

Independent samples t-test was used to find the difference in the prices paid across genders. Out of a total of 202 respondents 103 were females and 99 were males which is an adequately equal ratio of representation. Females having a mean score of prices paid was 1215.24 with standard deviation= 455.317. Males having a mean score of prices paid was 941.12 and standard deviation= 367.46. The mean difference between males and females was 274.12. Levene’s test for equality of variances showed sig value of 0.079 which is greater than 0.05 hence equal variance was assumed (F statistic=3.111). The t-test for equality of means suggested that the mean difference of 274.12 between males and females is significant with a sig value (2 tailed) of 0.000 which is less than 0.05 (p-value=0.000, t=-4.698, degree of freedom=200, CI=95% [-389.18, -159.05]). Hence there is a significant difference between the prices paid by males and females with females paying significantly more than male respondents.

### **Hypotheses Assessment Summary**

H1: The external reference price is a significant factor influencing the consumers perceived control/power. <b>Finding: Supported</b>
H2: Consumers perceived control/power has a significantly positive effect on purchase intention. <b>Finding: Supported</b>
H3: Consumers perceived control/power has a significantly positive effect on willingness to pay. <b>Finding: Rejected</b>
H4: Perceived control/power will mediate the relationship between the external reference price and purchase intention. <b>Finding: Rejected</b>
H5: Perceived control/power will mediate the relationship between the external reference price and willingness to pay. <b>Finding: Rejected</b>
H6: Gender has a significant influence on the consumers willingness to pay, such that there exists a significant difference between the prices paid between male and females. <b>Finding: Supported</b>



## **Conclusion**

It was discussed at the start of the study that people mostly rely on external cues when making buying or purchasing decisions (Roy, 2015) . And how providing a higher recommended external reference price sometimes makes the respondents pay significantly less than they would have; as they perceive the provision of this reference price as a part of manipulation (Jennifer Wiggins Johnson &, 2013). In order to resolve this issue perceived control/power was introduced as mediator between ERP and PI and ERP and WTP. Also, it was important to see that whether different genders respond differently to this PWYW setting, as supported by the empathizing-systemizing theory which distinguishes males as rational beings and females as emotional beings. In order to find out how these relate to each other a survey was conducted from 202 respondents out of which 103 were females and 99 were males mainly undergraduate students falling mostly under the range of 21 to 30 years of age living in Karachi. A well know cinema ticket was selected as a sample product (Nuplex). Different questions were asked for ERP, PI, PCP and WTP selected from past literature by means of a questionnaire. This study examines if the provision of perceived control/power as a mediator resolves the issue of this manipulation concern of participants and produces significant results for WTP and PI. Furthermore, it was found that as compared to male respondent's female respondent paid significantly more when asked what is your willingness to pay. This finding provides important insight because we now know that perceived power/control can be used to generate significantly more purchase intention with a higher reference price and females are willing to pay more under a pay what you want setting.

## **Discussion**

This study examines whether perceived control/power will mediate the effects of external reference price on purchase intention and willingness to pay both. Our findings suggest that perceived control/power will mediate the effects of external reference price on purchase intention but it will not mediate the effects of external reference prices on willingness to pay. This may be due to the fact that the research was conducted through a questionnaire and the respondents were given a sample scenario of buying a movie ticket on PWYW basis from Nuplex who has introduced this strategy to help raise funds for cancer patients. This abstract nature of the study greatly differs from a real scenario. Respondents had shown their intent to purchase but while responding to what they are willing to pay with nothing at stake they recorded prices close to or in some cases more than the recommended price. This can be related to the past study conducted in which membership card holder when reminded of their membership paid significantly more due to self-signaling and image concerns (Lihua, 2011), while in



our study respondents were free of these factors while answering on a questionnaire. When finding out which gender pays more under a pay what you want setting our findings suggested that females are willing to pay more under a pay what you want setting as compare to their male counterpart. This is also supported by the idea that females are emotional beings and males are rational beings as per the empathizing-systemizing theory. The nature of the PWYW setting in which a charitable component is introduced and all the power of price determinations is shifted towards the buyer; females make their decisions based on social and fairness concerns and wanting to be a part of this shared-social responsibility. While males are more inclined to rational factors like product quality, product knowledge and product experience and try to increase their utility. This is also supported by the study in which perceived competence which is a cognitive or rational factor generated more purchase intention for females while perceived warmth being an emotional factor generated more purchase intention for female respondents (Jianping Xue, 2020).

A significant theoretical finding of this research is the distinction between purchase intention and willingness to pay. Although perceived control is a significant factor in purchase intention, it does not necessarily lead to monetary commitment. This finding indicates that mental processes (cognitive evaluations) and economic processes (economic decisions) might be at least partially mediated by different processes.

A possible explanation for this finding is that mental processes are often driven by psychological readiness or intention, but economic decisions might also be influenced by other factors, such as budget constraints, fairness, or self-image concerns. This finding is consistent with previous research on PWYW, which showed that intent does not necessarily lead to actual payment behavior, especially in a hypothetical scenario.

## **Implications**

As PWYW strategy has been used by many businesses like restaurants, Radiohead music band and many others. It has now gained a name for itself and many businesses are wanting to introduce this PWYW strategy. But to successfully implement it and make it more profitable than standard price strategies, different determinants are to be handled with care otherwise this strategy might backfire as the complete power of price determination is shifted towards the buyer. Some of such determinants are external reference prices, perceived power/control and how different genders will respond to this strategy. Even the provision of an external price reference is challenge for business because the buyer might think that the seller is manipulating in order to get a higher price. But, this study has successfully



proved that when perceived power/control will be introduced the buyer will be eager to purchase. Also, the results indicate that females will be willing to pay more as compared to male. The findings of this study open many doors for businesses on how and whom they should provide external price reference and target females as their major customers. Higher than actual price ERP should be provided in such a way that the buyer must feel in control/power such that the business can use third party or AI generated higher price recommendations for the provision of an ERP or they can simply target individuals who seem to be more in control/power of their decisions like middle aged, higher education and individuals with higher incomes. Instead, firms should focus on a data-driven segmentation approach rather than depending on demographic generalizations such as gender alone.

## **Limitations**

This study being a part of a research project the main limitations of this study are time constraints, budget and lack of field study. As this study was not conducted on an actual field or a real scenario the results might differ such that willingness to pay being an actual act of paying an amount might have differed in a field experiment. The time constraint and budget constraint didn't allow this study to be performed in an actual scenario. Asking about whether the respondent's behavior is motivated by his own personal beliefs and control is different from actually providing a sense of perceived power/control or selecting individuals with higher perceived control/power. This indicates that there also might exist some variance in perceived power/control all of which could have been handled with care in a field experiment.

The generalizability of the findings is also limited due to the homogeneous composition of the sample, as it mainly includes undergraduate students from Karachi (approximately 90%) within a narrow range of ages (21-30 years). The findings cannot be generalized to a larger and more diverse group of consumers.

The willingness to pay was measured through a hypothetical and self-reported method rather than an incentive-compatible method. The PWYW behavior is highly sensitive to financial consequences, and the absence of a transactional context may result in hypothetical bias.

## **Recommendations**

The findings of this study provide businesses with a fundamental base on which demographics should they target while implementing this study such that females and also how the provision of



perceived power/control greatly influence the purchase intention of the buyers when provide with a higher reference price. These finding will be helpful for such businesses in implementing this strategy profitably. For future studies scholars must allocate higher budgets and conduct a field experiment of this study and must carefully select a well-known product so that the respondents are able to distinguish whether the recommended price is higher than its actual price. Also, they must conduct the same study with a lower price recommendation and a close to actual price recommendation in order to compare the prices paid in these three separate scenarios. This way they can properly distinguish whether the prices paid when given a higher ERP are actually greater than when provided a lower or close to actual price recommendation.

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