

# Factors Influencing Millennials' Motivation to Purchase Online Mystery Boxes in Thailand

Kununya Kongsrисawart<sup>a</sup>  
Jinthapa Paopongchareung<sup>b</sup>  
Jirawan Pattasongklam<sup>c</sup>  
Penludee Keawsan<sup>d</sup>  
Jaruporn Tangpattanakit<sup>e\*</sup>

Article Info  
Received 11 August 2025  
Revised 30 August 2025  
Accepted 30 August 2025  
Available online 31 August 2025

*a,b,c,d,e\* Faculty of Management Sciences, Kasetsart University Sriracha Campus, Thailand, Email: jaruporn.tan@ku.th*

## Abstract

This study aims to examine the factors influencing Millennials' motivation to purchase online mystery boxes in Thailand. A quantitative research approach was employed, with a sample of 400 Millennials selected for the study. Data were collected through an online questionnaire and analyzed using descriptive statistics, including percentage, mean, and standard deviation, as well as inferential statistics, namely multiple regression and simple regression analyses. The results revealed that innovation adoption, curiosity, conformity to reference groups, expectation, and perceived price value significantly influenced Millennials' motivation to purchase online mystery boxes.

**Keyword:** Mystery Box, Consumer innovativeness, Curiosity, Subjective Norm, Expectancy, Perceived Price Value

## Introduction

According to the TTB Analytics Economic Analysis Center, the COVID-19 pandemic has significantly impacted numerous businesses. TTB Analytics conducted a study on various industries from the first nationwide lockdown in the second quarter of 2020 through the second quarter of 2021, analyzing the supplementary revenues of publicly listed companies. The findings indicated that while businesses were able to adapt and gradually recover from the impacts, their survival largely depended on expanding their presence in online marketing channels. Businesses also had to cope with shifting consumer behaviors, as consumers began saving more and reducing non-essential spending. To remain competitive, businesses were required to adopt technology and leverage the surrounding digital ecosystem, such as e-commerce (TTB Analytics, 2021).

In response to these changes in consumer behavior, many businesses have increasingly turned to online marketing strategies. Among these, gamified marketing approaches aimed at providing enjoyable experiences for customers have gained popularity. Such strategies not only enhance customer experiences but also encourage social proof through online reviews and endorsements. Using tools like Uber Suggest to identify popular search trends in the past year revealed a sharp increase in online searches for "mystery boxes" starting in July 2021 and continuing through the end of the year (Steps Academy, 2021).

Mystery boxes originated in Japan, where they were known as “Lucky Bags,” typically containing discounted or second-hand items offered as promotional packages. However, the contents evolved differently in each country to suit local preferences. In Thailand, mystery boxes have gained widespread popularity over the past two to five years, fueled in part by creative YouTube content creators who order and unbox these packages on camera, inviting viewers to share the excitement of discovering what is inside. This phenomenon has since become a major trend (Bangkok Biz News, 2021). From a marketing perspective, certain strategies target emotional triggers in human decision-making. This explains why many brands and influencers embrace “mystery box” campaigns to spark consumer curiosity and motivate purchases (Steps Academy, 2021).

Selling online mystery boxes has thus emerged as a marketing strategy capable of stimulating consumer purchase motivation while simultaneously boosting sales. This study aims to investigate the factors influencing Millennials’ motivation to purchase online mystery boxes in Thailand. The research seeks to identify and understand these factors, thereby providing insights that can help businesses adapt to current conditions, increase online sales, and employ more effective marketing tools. Millennials, in particular, prioritize spending on activities and products that enhance personal happiness over other types of expenditures. They place significant importance on maintaining a unique and attractive online image, value novelty, and frequently use social media to share and search for information (Office of Trade Policy and Strategy, 2020).

## **Objectives**

1. To examine the factors influencing Millennials’ motivation to purchase online mystery boxes in Thailand.
2. To utilize the identified factors as a basis for business practices or as reference information for future research.

## **Research Hypotheses**

H1: Consumer innovativeness has a significant influence on Millennials’ motivation to purchase online mystery boxes in Thailand.

H2: Curiosity has a significant influence on Millennials’ motivation to purchase online mystery boxes in Thailand.

H3: Subjective norm has a significant influence on Millennials’ motivation to purchase online mystery boxes in Thailand.

H4: Expectancy has a significant influence on Millennials’ motivation to purchase online mystery boxes in Thailand.

H5: Perceived price value has a significant influence on Millennials’ motivation to purchase online mystery boxes in Thailand.

## Literature Review

In studying the factors influencing Millennials' motivation to purchase online mystery boxes in Thailand, the researcher reviewed relevant concepts, theories, literature, and previous studies to serve as a framework for the analysis, as follows:

### **Concept and Theory of Consumer Innovativeness**

Consumer innovativeness refers to the predisposition to purchase new products and to choose goods or brands that differ from those previously consumed in more traditional ways (Steenkamp et al., 1999). It also denotes a consumer's willingness to adopt innovations in daily life, often stemming from a desire for novelty and unique experiences. Such individuals tend to exhibit distinctive decision-making patterns that are more self-directed rather than conforming to the majority.

Hirschman (1980) emphasized that "innovation is one of the few concepts that is critically important to consumers." From a sensory perspective, innovation may relate to the satisfaction derived from consuming novel products, which in turn can stimulate the motivation to seek new consumption experiences (Venkatraman, 1991).

Therefore, consumer innovativeness can be seen as a motivational driver prompting the purchase of new products over familiar or conventional ones (Steenkamp et al., 1999). The novelty inherent in a product or service can stimulate consumer curiosity and encourage trial (Venkatraman, 1991).

### **Concept and Theory of Curiosity**

The theory of human curiosity suggests that it is a driving force that compels individuals to devote time and considerable effort toward seeking knowledge, stimulated and motivated by the desire to learn new things (Skinner, 1947). Curiosity is considered a fundamental human emotion; however, its intensity and manifestation vary depending on the individual and the situation. It can be triggered by feelings of surprise or satisfaction, and may serve as the underlying reason for actively seeking information to resolve uncertainty (Livio, 2017).

In the context of purchasing mystery boxes, a study published in the *Harvard Business Review* concluded that surprise is a powerful marketing tool. The state of "not knowing" combined with the desire to know serves as a strong internal motivator that influences decision-making or prompts individuals to search for information to satisfy their curiosity (Bangkok Biz News, 2021). People tend to enjoy surprises and experience satisfaction when receiving something unexpected. Consequently, brands often use mystery boxes to stimulate curiosity and encourage purchase decisions (Steps Academy, 2021).

Therefore, curiosity, as a fundamental human emotion, underlies the sense of surprise and novelty, prompting individuals to seek information to fulfill their desire to know (Livio, 2017). This aligns with marketing theories that leverage emotional drivers in human decision-making. Such strategies explain why many brands and influencers employ "mystery box" campaigns to captivate consumer curiosity and motivate purchases (Steps Academy, 2021).

### **Concept and Theory of Subjective Norm**

A reference group refers to an individual or a group of individuals who influence a person's behavior, creating values that are adopted by the person seeking to act in accordance with the behavior of the reference group (Hawkins, Best, & Coney, 1998). Subjective norm is defined as a person's perception of the type of behavior they should perform or the beliefs they should hold, based on the influence of trusted and respected individuals, such as family

members, friends, or public figures. Consequently, an individual's behaviors or attitudes are often shaped by the influence of these reference groups (Fishbein & Ajzen, 1977).

Reference group conformity can manifest in both general behavioral patterns and specific consumer behaviors, as reference groups influence consumers' attitudes and beliefs (Majumdar, 2010). Such groups can affect personal behaviors and shape shared or differing values, depending on the situation (Hawkins & Mothersbaugh, 2010).

Therefore, consumers' conformity to reference groups is partly derived from the influence of people around them, as well as exposure to recommendations, invitations, or various forms of media. When consumers are repeatedly exposed to such influences, they may develop purchase behaviors or motivation to buy online mystery boxes in alignment with those influential individuals.

### **Concept and Theory of Expectancy**

Vroom (1964) proposed the Expectancy Theory, which posits that individuals hold beliefs about the value of certain goals, and these beliefs serve as a driving force that motivates them to engage in specific actions to achieve those goals. This theory explains that motivation is shaped by a person's expectation that their efforts will lead to goal attainment. It highlights the notion that motivation is valuable and requires individuals to exert effort in defining and pursuing their objectives (Napa-orn Tiasut, 2012). When expectations are met, individuals may set even higher aspirations for future efforts. Conversely, when expectations are not fulfilled, it can lead to discouragement, prompting a shift in desires, attitudes, or needs. In a consumer context, this means that customers expect to receive products that align with their envisioned outcomes, an anticipation often shaped by past experiences (Bhattacherjee, 2001).

Furthermore, Wen et al. (2011) found that when the received product meets a consumer's expectations, it results in satisfaction. Conversely, when the product does not meet expectations, dissatisfaction occurs, reducing the likelihood of repeat purchases.

Therefore, when consumers are motivated to purchase an online mystery box, they inherently develop expectations regarding the contents. If the items align with their expectations, they are more likely to form positive attitudes, recommend the product to others, and make repeat purchases.

### **Concept and Theory of Perceived Price Value**

Perceived value refers to the benefits a consumer receives from the monetary price of a product, representing the consumer's evaluation of whether the purchase is worth the amount paid prior to making a buying decision (Zeithaml, 1988). This aligns with the definition provided by Piyapa Daengdet (2014), which describes it as the amount of money exchanged for goods or services based on the agreed price between the buyer and the seller. Perceived value is thus a form of perception that assesses the monetary benefits and costs associated with purchasing or using a product or service (Lee, Choi, & Hong, 2007).

Perceived price value influences consumer satisfaction, as monetary benefits occur when the value of the product exceeds its cost, resulting in a high perceived price value. Consumers benefit from purchases when they assess that the monetary value justifies the price paid, thereby creating motivation to purchase goods or services. Conversely, when the price paid exceeds the perceived benefits gained, the perceived price value becomes low (Matzler, Würtele, & Renzl, 2006), causing consumers to feel disadvantaged and demotivated to purchase.

In the context of mystery boxes, this can resemble a form of gambling, as defined by the Royal Institute Dictionary (2002): “a game played for money or other stakes, relying on intelligence, skill, tricks, ingenuity, and luck, in which the player risks gaining or losing benefits.”

In summary, perceived price value refers to the consumer’s evaluation of whether the money spent is worthwhile compared to the expected benefits from consuming the product or service, formed through the agreed price between the buyer and the seller before the purchase decision.

## **Research Methodology**

This study employed a quantitative research approach, focusing on Millennials who engage in online spending behaviors. This group places importance on spending money to obtain happiness or peace of mind (Office of Trade Policy and Strategy, 2020).

The sample consisted of Millennials aged between 18 and 35 years. The sample size was determined using Cochran’s formula (1977), as the actual proportion and total population were unknown. With a 95% confidence level and a  $\pm 5\%$  margin of error, the total sample size was set at 400 participants.

Data were collected using an online questionnaire designed to align with the concepts, theories, and variables of the study. The questionnaire consisted of one set, divided into seven sections:

- Section 1: Demographic information (7 items)
- Section 2: Consumer innovativeness (5 items)
- Section 3: Curiosity (4 items)
- Section 4: Subjective norm (4 items)
- Section 5: Expectancy (5 items)
- Section 6: Perceived price value (4 items)
- Section 7: Motivation to purchase online mystery boxes (5 items)

Quota sampling was employed to ensure that the sample reflected the proportional characteristics of the population. A pilot test was conducted with 40 respondents to assess the questionnaire’s reliability. Cronbach’s alpha coefficient was calculated using statistical software, with an acceptable threshold set at 0.70 or higher (McGraw, KO, & Wong, SP, 1996). The pilot test yielded a Cronbach’s alpha value of 0.950, indicating a high level of internal consistency.

## **Statistical Analysis**

The data analysis was conducted in two parts as follows:

1. Descriptive Statistics – Statistical measures were employed to describe various aspects of the data. Percentage was used to analyze Section 1 (respondents’ demographic information), while mean and standard deviation were used to analyze the other factors.
2. Inferential Statistics – Multiple regression analysis and simple regression analysis were applied to test all six research hypotheses.

## Research Findings

### 1. Demographic Profile of Respondents

The sample, obtained through quota sampling, consisted of an equal proportion of male and female respondents. Most respondents were aged between 18 and 23 years (48%) and were students currently enrolled in educational institutions (49.8%). The majority held a bachelor's degree or equivalent (72.8%) and had an average monthly income of less than 10,000 Baht (36.8%). In terms of online media consumption behavior, the top three preferred platforms were YouTube (31%), Instagram (26.04%), and Facebook (23%), respectively.

### 2. Mean and Standard Deviation Analysis

The analysis of factors influencing Millennials' motivation to purchase online mystery boxes revealed that overall motivation was at a high level ( $\bar{x} = 3.73$ , S.D. = 0.35). The most influential factors, ranked in descending order of mean scores, were:

Expectancy ( $\bar{x} = 4.31$ , S.D. = 0.57) Curiosity ( $\bar{x} = 4.19$ , S.D. = 0.50) Subjective norm ( $\bar{x} = 4.18$ , S.D. = 0.51) Perceived price value ( $\bar{x} = 4.03$ , S.D. = 0.58) Consumer innovativeness ( $\bar{x} = 3.65$ , S.D. = 0.35)

### 3. Regression Analysis

The regression analysis results indicated that [Note: You have not provided the specific statistical values such as  $\beta$ , t, p-values, or  $R^2$  here. These should be inserted if available to complete the section. Without them, only the general findings can be stated]. The analysis confirmed that the identified factors significantly influenced Millennials' motivation to purchase online mystery boxes.

**Table 1:** Results of the Multiple Regression Analysis of Factors Influencing Millennials' Motivation to Purchase Online Mystery Boxes

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	$\beta$		
1 (Constant)	1.285	0.185	0.049	8.128	0.000
	0.050	0.042		1.2	0.231
	0.189	0.038		4.98	0.000
	0.122	0.034		3.556	0.000
	0.65	0.032		2.07	0.039
	0.169	0.163		5.759	0.000

**Note:** R = 0.686,  $R^2$  = 0.471, Adjusted  $R^2$  = 0.465, F = 71.645, \*P < 0.05

From Table 1, the results of the multiple regression analysis of factors influencing Millennials' motivation to purchase online mystery boxes revealed that the variables with the greatest predictive power were Curiosity ( $\beta = 0.263$ ,  $p = 0.000$ ), Subjective Norm ( $\beta = 0.173$ ,  $p = 0.000$ ), and Perceived Price Value ( $\beta = 0.271$ ,  $p = 0.000$ ). These were followed by Expectancy ( $\beta = 0.104$ ,  $p = 0.039$ ) and Consumer Innovativeness ( $\beta = 0.049$ ,  $p = 0.231$ ).

The analysis indicated that Consumer Innovativeness ( $\beta = 0.049$ ,  $p = 0.231$ ) and Expectancy ( $\beta = 0.104$ ,  $p = 0.039$ ) had no statistically significant influence on Millennials' motivation to purchase online mystery boxes.

## Discussion/Conclusion

**Hypothesis 1:** Consumer innovativeness influences Millennials' motivation to purchase online mystery boxes.

The findings revealed that consumer innovativeness did not significantly influence Millennials' motivation to purchase online mystery boxes. This result contradicts the study of Hirschman (1980), who asserted that "innovation is one of the few concepts critically important to consumers." This discrepancy may be due to various factors influencing consumers' adoption of innovation in mystery box purchases. For example, the products offered in the mystery boxes may lack novelty to attract consumers, even though novelty in products can stimulate consumers' desire to experiment (Venkatraman, 1991).

Additionally, the channels used to communicate product value to consumers might be unclear or ineffective. As Rogers (2003) noted, communication can be a double-edged sword—when conveyed effectively, it can address weaknesses and close gaps, but if delivered poorly, consumers may fail to perceive or accept the intended message.

Therefore, the absence of a significant relationship between consumer innovativeness and the motivation to purchase online mystery boxes may stem from communication errors or insufficiently effective promotional efforts. Furthermore, consumers may be reluctant to adopt new products in the market or may perceive frequent product updates as reducing novelty. Businesses might address this by promoting and clearly communicating product value to improve consumer acceptance.

**Hypothesis 2:** Curiosity influences Millennials' motivation to purchase online mystery boxes.

The findings indicate that consumers possess an inherent curiosity for new experiences, which can serve as a motivator or stimulus prompting them to seek answers. This result aligns with the concept proposed by Skinner (1947), who stated that human curiosity drives individuals to dedicate time and considerable effort in pursuit of knowledge, fueled by stimulation and motivation to learn new things. It also supports the view of Livio (2017), who suggested that curiosity can lead to feelings of satisfaction and can be a reason for seeking out information.

Similarly, STEPS Academy (2021) emphasized that certain marketing strategies leverage aspects of human decision-making, explaining why many brands and influencers employ "mystery box" campaigns to stimulate consumer curiosity and encourage purchases. This is consistent with the findings of the *Harvard Business Review*, which concluded that surprise is a powerful marketing tool, and that "not knowing and wanting to know" is a strong internal driver that influences decision-making and information-seeking behavior (Bangkok Biz News, 2021).

Therefore, curiosity significantly influences the decision to purchase online mystery boxes, as it prompts consumers to seek additional information to support their purchase decisions. The mystery box strategy serves as an effective trigger for stimulating consumer curiosity.

**Hypothesis 3:** Subjective norm influences Millennials' motivation to purchase online mystery boxes.

The findings indicate that consumers tend to conform to their reference groups, which aligns with the theory proposed by Majumdar (2010), suggesting that reference group conformity can manifest in both general behaviors and specific consumer behaviors. This also supports the perspective of Hawkins and Mothersbaugh (2010), who argued that reference groups influence consumers' attitudes and beliefs in ways that vary depending on the situation.

The results suggest that consumers' conformity to reference groups stems from the influence of people around them, including recommendations, invitations, or exposure through various media channels. When consumers are regularly exposed to such influences, they are more likely to develop purchase behaviors or motivation to buy online mystery boxes in alignment with influential individuals.

Therefore, the findings for subjective norm confirm that purchase motivation is shaped by the influence of individuals or groups whom consumers trust, and by repeated exposure to recommendations or promotional content from these sources.

**Hypothesis 4:** Expectancy influences Millennials' motivation to purchase online mystery boxes.

The findings reveal that expectancy—defined as an individual's belief in their goal, which serves as a major driver of motivation and product perception—did not significantly influence Millennials' motivation to purchase online mystery boxes. This result contradicts the study of Bhattacherjee (2001), which suggested that when expectations are met, individuals tend to set even higher aspirations in subsequent efforts, whereas unmet expectations may lead to disappointment, altering desires, attitudes, or needs. Such expectations are often shaped by prior experiences.

In the context of this study, consumers who had past experiences with mystery boxes that did not meet their expectations were likely to feel dissatisfied, reducing the likelihood of repeat purchases.

Therefore, the findings suggest that most consumers do not hold strong expectations about the contents of mystery boxes. Rather, they tend to purchase them primarily for the excitement and to satisfy their curiosity, rather than to meet a predetermined expectation about specific product contents.

**Hypothesis 5:** Perceived price value influences Millennials' motivation to purchase online mystery boxes.

The findings show that consumers perceive price value in a way consistent with the concept proposed by Matzler, Würtele, and Renzl (2006), which posits that perceived price value impacts consumer satisfaction. Monetary benefits arise when the product's value exceeds its cost, resulting in a high level of perceived price value. In such cases, consumers benefit from their purchase through the assessment of price value, which in turn generates motivation to buy goods or services. Conversely, when the price paid exceeds the benefits derived from the product or service, the perceived price value decreases.

Therefore, based on the findings for perceived price value, it can be concluded that respondents are able to assess price value and evaluate the worthiness of a product, as well as the appropriateness of its quality relative to its price, prior to making a purchase decision. This perception contributes to their motivation to purchase online mystery boxes.

## Suggestion

### 1. Recommendations for Applying the Research Findings

1. Expectancy – As expectancy was found to have the most significant impact on the decision to purchase online mystery boxes, businesses should study consumers' expectations and purchasing behaviors, such as preferences for efficient service, uncomplicated purchasing procedures, and high-quality, diverse products that exceed customer expectations. Meeting or surpassing these expectations may enhance customer satisfaction and encourage repeat purchases.

2. Curiosity – Since curiosity acts as a motivator or stimulus for seeking information, and “not knowing and wanting to know” is considered a powerful marketing tool, businesses should leverage the mystery box strategy as an effective method for stimulating consumer curiosity.

1.3 Subjective Norm – Given that reference groups significantly influence consumers' attitudes and beliefs, particularly through recommendations, invitations, or media exposure, businesses should communicate through reputable influencers and existing customers who have previously purchased the product to enhance credibility and appeal.

### 2. Recommendations for Future Research

1. Conduct studies involving different sample groups to compare behaviors and needs across varying demographics and consumer segments.

2. As this research employed a quantitative approach using online questionnaires, which may have yielded limited detail, future studies could incorporate in-depth interviews to gather more specific and comprehensive qualitative insights.

## References

Bangkok Biz News. (2021). *Understanding the “Mystery Box” trend: Not knowing what's inside, but wanting it anyway*. Retrieved November 30, 2021, from <https://www.bangkokbiznews.com/lifestyle/963424>

Bhattacherjee, A. (2001). *Understanding information systems continuance: An expectation-confirmation model*. *MIS quarterly*, 351-370.

Choosri Wongratana. (2001). *Techniques for using statistics in research*. Bangkok: Chulalongkorn University Press.

Cochran, W.G. (1977). *Sample Techniques*. (3<sup>rd</sup> ed.). New York: Wiley.

Fishbein, M., & Ajzen, I. (1977). *Belief, attitude, intention, and behavior: An introduction to theory and research*. Philosophy and Rhetoric, 10(2).

Hirschman, E.C. (1980), Innovativeness, Novelty Seeking and Consumer Creativity, *Journal of Consumer Research*, 7, p. 288.

Ifeanyichukwu, C. D. (2016). Effect of celebrity endorsements on consumers purchase decision in Nigeria. *International Research Journal of Management, IT & Social Sciences*, 3(9), 103.

Kanlaya Vanichbancha. (1999). *Statistical analysis: Statistics for decision making* (4<sup>th</sup> ed.). Bangkok: Chulalongkorn University Press.

Lee, I., Choi, & Hong, S.J. (2007). Culture-technology fit: Effects of cultural characteristics on the post-adoption beliefs of mobile Internet users. *International Journal of Electronic Commerce*, 11(4), 11-51.

Majumdar, P., & Samanta, S. K. (2010). Generalised fuzzy soft sets. *Computers & Mathematics with Applications*, 59(4), 1425-1432.

Matzler, Wurtele, & Renzl, B. (2006). Dimensions of price satisfaction: A study in the retail banking industry. *International Journal of Bank Marketing*, 24(4), 216- 231.

McGraw, K. O., & Wong, S. P. (1996). Forming inferences about some intraclass correlation coefficients. *Psychological Methods*, 1(1), 30-46 (Correction, Vol. 1, No. 4, 390).

Napa-orn Tiasut. (2012). *Expectations and satisfaction in receiving internal public relations information from the Department of Health Personnel*. Individual Project Report for Master of Journalism. Thammasat University.

Office of Trade Policy and Strategy. (2020). *Millennials: A key consumer base driving economic growth*. Retrieved December 22, 2021, from <https://mgonline.com/smes/detail/9630000114917>

Piyapa Daengdet. (2014). *Summary of lecture D.8.A.06, Sripatum University: Search documents and learning materials*.

Rogers, E. M. (2003). *Diffusion of innovations*. New York: Free Press.

Royal Institute. (1999). *Royal Institute Dictionary B.E. 2542 (1999)*. Bangkok: Nanmee Books Publications.

Steenkamp, J.B.E., Hofstede, F.T., & Wedel, M. (1999). A cross-national investigation into the individual and national cultural antecedents of consumer innovativeness. *The Journal of Marketing*, 63(2), 55-69.

Steps Academy. (2021). “*Opening the mystery box*”: A marketing strategy that delights and creates new experiences for consumers. Retrieved November 28, 2021, from <https://stepstraining.co/strategy/mysterious-box-marketing-strategy>

Suelin, C. (2010). Understanding consumer purchase behavior in the Japanese personal grooming sector. *Journal of Yaşar University*, 5(17).

TTB Analytics Economic Analysis Center. (2021). *TTB explores business adaptation and medium-term K-shape recovery*. Retrieved December 10, 2021, from [https://www.matichon.co.th/economy/news\\_2918826](https://www.matichon.co.th/economy/news_2918826)

Venkatraman, M. (1991). The Impact of Innovativeness and Innovation Type on Adoption. *Journal Of Retailing*, 67(1), 51-67.

Wen, C. P., Wai, J. P. M., Tsai, M. K., Yang, Y. C., Cheng, T. Y. D., Lee, M. C., ... & Wu, X. (2011). Minimum amount of physical activity for reduced mortality and extended life expectancy: a prospective cohort study. *The lancet*, 378(9798), 1244-1253.

Zeithaml, V. A. (1988). Consumer perceptions of price, quality and value: A meansend model and synthesis of evidence. *Journal of Marketing*, 52 (July), 2-22.