Asian Journal of Economic Modelling
ISSN(e): 2312-3656
ISSN(p): 2313-2884
DOI: 10.55493/5009.v12i2.5045
Vol. 12, No. 2, 93-107.

URL: www.aessweb.com

Measuring the factors impact on firm performance recovery in coffee chain in Vietnam

Manh Tien Pham
Faculty of Finance, Banking Academy of Vietnam, Hanoi, Vietnam.
Email: manhpham@hvnh.edu.vn

Article History
Received: 18 January 2024
Revised: 29 February 2024
Accepted: 19 March 2024
Published: 15 April 2024

Keywords
Coffee chain
Customer loyalty
Customer satisfaction
Firm performance recovery
Flexibility
Perceived price fairness
Service quality
Technology adoption.

JEL Classification:
G41; L20; L66.

ABSTRACT

This paper examines the relationship between customer satisfaction antecedents and firm performance recovery in the coffee chain in Vietnam and suggests suitable solutions for those firms to increase firm performance. The booming development period of food and beverage industry, especially coffee chains in Vietnam, also creates fierce competition for these companies, particularly in attracting potential customers and keeping current buyers. In this research, the dependent variables are service recovery performance, the customer satisfaction antecedents, including customer loyalty (service quality, perceived price fairness, and customer satisfaction), technology adoption, and flexibility. To achieve this purpose, a quantitative research design was developed, involving data collection from more than 300 customers who have used services from outstanding coffee chains in Vietnam through a structured questionnaire. The collected data underwent rigorous analysis via the Structural Equation Model, confirming the construct's validity, reliability, and discriminant validity. The results show that customer loyalty was significantly and positively impacted by customer satisfaction and perceived price fairness. Further, technology adoption and flexibility positively influenced firm performance recovery. However, the research does not find out the relationship between service quality and customer loyalty. The findings highlight the solutions for coffee chains in Vietnam to increase firm performance during the difficult market conditions, natural disasters, and epidemic periods.

Contribution/ Originality: This research contributes to emphasizing that customer satisfaction, technology adoption, and flexibility play an important role in performance recovery of the coffee chain in Vietnam. In fact, doing the research to find out the relationship between those factors and business recovery, particularly in coffee chain in Vietnam, is limited.

1. INTRODUCTION

According to the General Statistics Office (2023) Vietnam's population reached 100.3 million people in 2023, the youth generation accounted for approximately 22%, confirming the golden population period to 2039 in this country. In addition, the pace of urbanization in Vietnam continues to be strong due to population migration from rural to urban areas and the expansion of administrative boundaries in urban areas. The proportion of urban population in Vietnam in 2023 will be about 38.1%, increasing by 0.6% compared to 2022, and by1% compared to 2021. With a young population, this will experience a huge potential market for food and beverage industry, especially in coffee chains, because of the eating out trend among young generation.

In recent years, food and beverage (F&B) industry in Vietnam, especially the coffee chain, has seen a booming development period. For example, Starbucks has 100 branches, Highland Coffee has more than 700 stores, Phuc Long has 150 branches and more than 450 kioks, The Coffee House has over 150 stores, and so on (Quynh, 2023). This leads to fierce competition between coffee chain brands to gain market share. Due to the COVID-19 pandemic, combined with the difficulty of the competitive market, a number of coffee brands have closed or decreased their market share, particularly foreign brands such as The Café (after receiving 5 million USD from Cassia Investment, Hong kong), Gloria Jean's Coffee, and The Coffee Bean & Tea Leaf. According to Quang (2019) and Nguyen (2019) the reasons for the failure of the coffee chain in Vietnam include operating costs a lack of understanding of the market, competition between brands, and management problems. Moreover, the COVID-19 pandemic has caused severe and unprecedented disruption not only in today's business environment but also in food and beverage industry, including coffee chain brands. For example, there were many factors impacted by Covid-19, such as labor shortages, falling demand, limited supply, and dissatisfaction with customer satisfaction. Due to the complicated outbreak of the epidemic, Vietnam has focused more closely on imports, negatively affecting the production and transportation of goods (Quyen & Ha, 2021). In addition, the price of empty containers is increasing rapidly, making it more difficult for coffee to compete in the global market (Chi, 2021). For these reasons, the current coffee chain environment is significantly damaging to business operations, with resource constraints and an inability to meet customer needs having adverse effects that have placed unprecedented stress on some businesses, forcing them to restructure operations to stay afloat and maintain product availability, demand, and customer loyalty (Flynn, Cantor, Pagell, Dooley, & Azadegan, 2021).

This study explores and understands the factors that help coffee chain brands recover in today's difficult and competitive conditions in Vietnam. Firstly, this study will examine the relationship between antecedents of customer satisfaction and factors that influence service recovery performance. Secondly, this research is going to evaluate and find out the factors that impact the coffee chain's ability to recover. Thirdly, provide solutions for coffee chain companies to increase resilience in today's difficult market conditions.

For these reasons, this research will systematize the theoretical basis of customer satisfaction and firm performance recovery in business. Next, it discovers the important aspects and investigates customer loyalty, attitudes, and product prices affecting business recovery to improve operational performance in terms of firms' resilience, responsiveness, and services' quality. In the next step, to help understand better the business activities, suggest recommendations, and help the target firms have a new direction in business environment. Finally, this research will help the company have more ideas to overcome difficulties and increase its ability to recover quickly in the future.

The remainder of this research is organized as follows: Section 2 is literature review, Section 3 presents research model, Section 4 is research methodology. The fifth section presents findings and discussion, and finally, Section 6 presents conclusions and recommendations.

2. LITERATURE REVIEW

2.1. Theoretical Framework

2.1.1. Firm Performance Recovery

According to Walker, Holling, Carpenter, and Kinzig (2004) academics and business practitioners have become increasingly interested in business and organizational resilience. Resilience is the organizational capability required to deal with disruption while maintaining the same functions and structure as the business (Nikolopoulos, Punia, Schäfers, Tsinopoulos, & Vasilakis, 2021). This is in addition to the organization's capacity to adjust to new circumstances. The demands, requirements, and expectations of customers, the availability of supplies and people, and how to leverage the organization's capabilities to deal with difficult competitive conditions are all consistent (Gereffi, 2020).

Effective service recovery is an important factor in the service sector to sustain client happiness. By ensuring efficient service recovery, service businesses may sustain positive long-term connections with clients and win their

loyalty, dedication, and product approval. Because customer happiness is the foundation of customers' strong connections with businesses and brands (Javed Ahmad & Zakaria, 2018). To effectively solve operational and Supply Chain (SC) concerns, organizations should employ flexible procedures and practices that encourage innovation to increase their capacity for rapid reaction and resilience (Siagian, Tarigan, & Jie, 2021).

According to Srinivasan and Swink (2018) organizational flexibility is the capacity to function in an environment characterized by increased levels of uncertainty. At the same time, technology adoption has emerged as an essential component of organizational success and market competitiveness in today's internationalizing operations and globalization (Das, Kundu, & Bhattacharya, 2020). In the pandemic context, Zhang and Zheng (2022) concluded that because of pandemic impacts such as Covid-19 most companies experienced longer operations, increased expenditures, as well and a negative impact on potential cash flow. As a result, this will significantly influence firm performance and business recovery thereafter.

2.1.2. Customer Satisfaction Antecedents

Customer satisfaction provides a strong base for people in the marketing and consumer research fields. Oliver (1980) shows that in the expectation validation model, contentment arises from the seeming (non-confirming) discrepancy between expectations and the actual performance of a good or service. Customer satisfaction is crucial for fostering financially resilient growth and averting future issues (Reichheld & Detrick, 2003). It is expensive to win over new clients from competitors because doing so calls for more substantial service improvements (Anderson & Sullivan, 1993). Given the critical role that customer satisfaction plays in business, numerous studies have been carried out to determine how consumers form opinions about the services they have received, such as Siagian et al. (2021) and Bassey (2014). Examining the aspects that affect customer satisfaction is crucial since a firm places such a high value on them.

Retention of Customers: A few instances of the many factors that can be utilized to clarify antecedents include service quality, convenience, perceived value, personality traits, perceived brand, brand experience, employee satisfaction, adaptable selling, dominance, service staff dedication to the needs of the client, equity, customer-based brand equity, customer experience, equity, marketing mix, delivery efficiency, and supplier expertise (Johnson & Fornell, 1991). Each of these elements influences how satisfied customers are (Pugh, Dietz, Willey, & Brooks, 2002). Nevertheless, the majority of research initiatives center on three key areas: customer satisfaction, perceived price justice, and service quality.

2.2. Hypothesis Development

2.2.1. The Relationship between Service Quality and Customer Loyalty

The degree to which a good or service satisfies the needs or expectations of its target market is known as service quality (Lewis & Mitchell, 1990). Customer loyalty is an important outcome of delivering services since it is more likely to result in lucrative business from retaining current customers than from obtaining new ones (Reichheld & Detrick, 2003). Based on results from an investigation that was conducted by Leninkumar (2016), customer loyalty is significantly and favorably impacted by the quality of the services provided. Oliver (1980) contended that customer satisfaction acts as a mediator in the relationship between loyalty and service excellence. Similar to this, people encounter negative confirmation when the services they receive do not live up to their expectations, which lowers their degree of satisfaction with the provider (Budiastari, 2016). The research on the subject supports the hypothesis that the quality of the services provided may have an impact on the relationship between customer loyalty and satisfaction levels. Additionally, a customer's pleasure with the service and chance of returning to the store are strongly correlated with the quality of the service (Srivong, Daungprom, & Srisunthron, 2021). The study conducted by Naini, Santoso, Andriani, and Claudia (2022) aimed to determine the elements that influence patron loyalty in Jakartan eateries. by completing the surveys and interviewing important informants and

consumers. The findings show that product quality, customer satisfaction, and service quality have a significant impact on customer loyalty. Therefore, the author develops the first hypothesis below:

Hypothesis 1 (H_1): Service Quality will affect positively Customer Loyalty.

2.2.2. The Relationship between Perceived Price Fairness and Customer Loyalty

One's perception of prices has a significant impact on decision-making in the service sector. Research on customers' views of pricing has examined a number of dimensions, including perceived cost, price fairness perception, and price equity perception (Bolton & Lemon, 1999). In the work of Bassey (2014), a conceptual model is created to look into how customers' loyalty, contentment, and views of price justice relate to one another. According to this approach, customer happiness and loyalty rise when they believe that prices are fair. According to Martin, Ponder, and Lueg (2009), small price increases are viewed as more equitable by loyal customers than by disloyal ones, and when large price adjustments occur, the impact will not be as noticeable. If the price of a good or service is fair given the value it offers, customers will be satisfied with it (Hutagaol & Erdiansyah, 2020). Consuegra, Molina, and Esteban (2007) discovered that customer loyalty is positively correlated with perceived pricing fairness. According to Wijaya, Syahnur, and Landra (2016), word of mouth is positively and significantly impacted by pricing; if it's fair, people will continue to use the product and refer others to it. Consuegra et al. (2007) discovered that customer loyalty is positively correlated with perceived pricing fairness. Additionally, while doing research in Thai coffee shops to determine the correlation between price fairness, loyalty from clients, and service quality, San, Kijkasiwat, and Abbasi (2022) showed that in these organizations, price fairness has a favorable impact on customer loyalty. Based on this explanation, the second research hypothesis was formulated:

Hypothesis 2 (H_2): Perceived Price Fairness will affect positively Customer Loyalty.

2.2.3. The Relationships between Customer Satisfaction and Customer Loyalty

Past research indicates that the quality of services a business provides and the level of customer satisfaction it receives both have a major impact on how successful it is (Dawes, Keogh, Andrillon, & Pearson, 2020). Ganiyu (2017) examined and demonstrated the existence of a relationship or interdependence between the degree of customer loyalty that a company's customers have for it. They were persuaded that there is a direct correlation between a customer's degree of satisfaction and their degree of brand loyalty. Satisfaction can be defined as a customer's general attitude or behavior toward a service provider. Customers who are devoted are more inclined to make repeat purchases, try new products and services, promote them to others, and provide businesses with constructive criticism, which is why companies with loyal customers typically earn the highest profits (Reichheld & Sasser, 1990). Similarly, San et al. (2022) also ascertain whether client loyalty and satisfaction are positively correlated in Thailand's coffee shop industry. Therefore, the third research hypothesis was formulated:

Hypothesis 3 (H_3): Customer Satisfaction will affect positively Customer Loyalty.

2.2.4. The Relationships between Customer loyalty and Service Recovery Performance

According to Souiden and Pons (2009) a corporation should use organizational disaster management and planning methods to keep its consumer loyalty from declining. When consumers are made aware of marketing initiatives like corporate social responsibility (also known as CSR) as a proactive strategy and allowed to feel caring through these marketing acts, they are more likely to display behavioral dedication, such as a keen interest in making future purchases. CSR is referred to as a proactive approach to marketing. The importance of these tactics has increased as a result of the rise in the frequency of traumatic occurrences, which also entails an increase in the risk of both natural and man-made disasters (Lee, Kim, & Kim, 2020). Customers are more likely to stick with a brand even after learning negative information about a company they have confidence in, even if they are aware that the information is accurate (Laverie & Arnett, 2000). Clients may find it simpler to relate to a business that exhibits

resilience, which also aids those customers in getting over any unfavorable information they may have heard about the business in the past. This is because consumers who have previously interacted with a specific business or brand are more likely to offset any bad information and maintain their preferences for the firm or brand when faced with unfavorable information about it. This is due to the fact that consumers who have previously interacted with a brand or company are more likely to stick with them (Meis, 2018). In other words, a business has a higher chance of recovering if it already has a certain number of loyal customers (Rew & Minor, 2018). In order to ascertain how consumers feel about the things they buy after going through bad experiences, service recovery is crucial. The next research hypothesis was formulated:

Hypothesis 4 (H_4): Customer loyalty will affect positively Service Recovery Performance.

2.2.5. The Relationships between Technology Adoption and Service Recovery Performance

Utilizing technology to establish a competitive advantage and ensure client connection has become crucial (Kabir, Tahmeem, & Sugandha, 2018). Also, the Willocx, Vossaert, and Naessens (2016) study on technology adoption will cover a variety of strategies for business growth, but one of them will be mobile apps, which will be crucial for service recovery performance. People can now connect with businesses via mobile apps to get feedback, compare pricing, and make purchases. The need for clients to get finished goods or services at the time and location of their choice has steadily increased the appeal of mobile services. Jalil, Ali, and Kamarulzaman (2022) used structural equation modelling to address determinants of SME performance in Malaysia. The results show that, beside innovation capacity, technology adoption has a significant positive influence on these firms. Therefore, to achieve sustainable performance in the market, SMEs in Malaysia need to focus on improving their operative innovation model. Based on explained literature review, the fifth research hypothesis was formulated:

Hypothesis 5: Technology Adoption will affect Service Recovery Performance.

2.2.6. The Relationships between Flexibility and Service Recovery Performance

The most important goals for a resilient business are to have a comprehensive understanding of the situation as a whole and to continually challenge oneself to improve one's goods or services, as well as one's overall organizational performance, one's level of organizational sustainability, and one's level of customer loyalty (Harcourt & Ateke, 2018). Operational flexibility, which refers to the organizational capacity to reorganize corporate resources to product offerings in a way that products and services are offered in a dynamic and fluctuating market environment, is one of the key factors enhancing organizational performance on an operational level (Sáenz, Knoppen, & Tachizawa, 2018). Flexibility becomes a necessity for resilience and promotes organizational resilience; coping capacity is the ability of an organization to react swiftly and fairly to both anticipated and unanticipated occurrences (Karman, 2020). The last research hypothesis was formulated as below:

Hypothesis 6: Flexibility will affect positively Service Recovery Performance.

3. RESEARCH MODEL

Figure 1 explains the suggested model to find out the relationship between customer loyalty, technology adoption, flexibility, and service recovery performance. Independent factors, psychological variables, dependent variables, and moderating variables are the four types of variables that make up the research model (Milin & Hadzic, 2011). Customer satisfaction antecedents are the independent variables, and the three primary ones are service quality, perceived price fairness, and customer satisfaction. Flexibility and technology use are two more independent factors that impact service recovery performance. Secondly, customer loyalty is the intermediate variable between customer satisfaction antecedents and service recovery performance. Customer loyalty, technology adoption, and flexibility all ultimately affect the dependent variable, service recovery performance. The suggested research model will be based on the analysis.

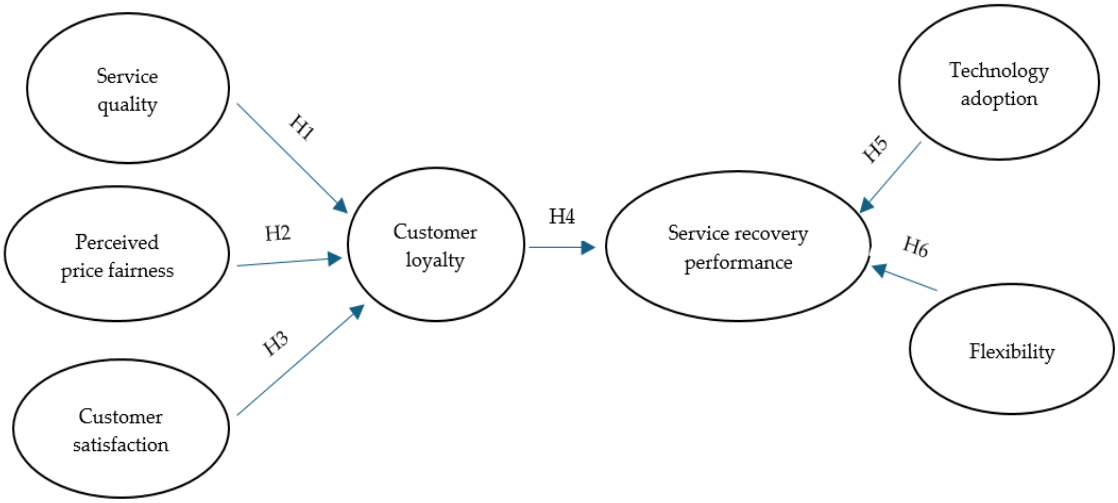

Figure 1. Research model.

4. RESEARCH METHODOLOGY

This paper is designed to use quantitative methods; data was collected through questionnaires to identify the factors that impact firm performance recovery in the coffee chain in Vietnam. To gather data for the subsequent investigation: The survey will be carried out with customers who have bought drinks at coffee chain. The questionnaire was evaluated on a 5-point Likert scale, ranging from (1) strongly disagrees to (5) totally agree. These survey question levels are used to analyze the overall mood of visitors about the many factors.

The target population in this study is coffee chains' customers in Vietnam, which are collected from famous coffee shop brands such as The Coffee House, Trung Nguyen, Starbucks, and Phuc Long Coffee. Hair, Sarstedt, Hopkins, and Kuppelweiser (2014) suggest that the minimum appropriate number of samples is 100. Therefore, the author sent out 360 questionnaires, 346 questionnaires were received, and there were only 300 questionnaires usable. The detailed questionnaires have been shown in the Table 1. To analyze which factors have an impact on independent variables, this research used two steps separately. The first step is to describe the overview of respondents' data to provide clear information about the input data. In the next step, the author uses structural equation modelling (SEM) by Smart-PLS to find out the relationship between variables under the research.

Table 1. Interpretation of variables in the research model.

Variables	Code	Items	Source
Service quality	SQ1	Staff at the store are enthusiastic and friendly	Dhisasmito and Kumar (2020)
	SQ2	The space of the cafe is comfortable	
	SQ3	Drinks are served quickly	
	SQ4	The staff of the cafe is knowledgeable about the needs of customers	
Perceived price fairness	PPF1	The cost in the cafe is in line with what customers experience	San et al. (2022)
	PPF2	The quality of raw materials used to manufacture products is suitable for the price	
	PPF3	The coffee chain that offers the best price can meet the needs of customers with products	
	PPF4	Overall, coffee chains offer low price options compared to single coffee shops	
Customer satisfaction	CS1	The last time I went to the coffee chain, I was satisfied with the drinks and the service	San et al. (2022) and Dhisasmito and Kumar (2020)
	CS2	I will recommend my friends to the coffee chain	
	CS3	The quality of the food and service of the cafe met my expectations	
	CS4	Overall, I am satisfied with the facilities and service	
Customer	CL1	You will continue to support new products from the coffee	Hutagaol and

Variables	Code	Items	Source
loyalty		chain in the future	Erdiansyah (2020)
	CL2	You will continue to come and have drinks at the coffee shop	
	CL3	You will buy the product even if the price is higher than other brands	
	CL4	You will buy products from this cafe even if it increases the service price	
Flexibility	F1	The coffee chain is always up to date and has a diverse list of drinks	Saad, Elgazzar, and Kac (2022)
	F2	Chain of stores constantly introducing new products and Services	
	F3	The store offers many promotions for customers	
Technology adoption	TA1	The company should create and improve the mobile app	Saad et al. (2022)
	TA2	Mobile applications help customers track promotional activities of the coffee chain	
	TA3	Applying more technology will help the company operate more developed	
Service recovery performance	RP1	The coffee chain can quickly solve the shortage of input materials (For example, when a customer orders a product that is not available due to a shortage of raw materials, it will be quickly resolved)	Saad et al. (2022) and Liu and Lee (2018)
	RP2	The store adapts to disruptions (i.e. out of stock products and materials) in a way that adequately addresses customer needs	
	RP3	Quick response to customer inquiries	
	RP4	Quick complaint handling process	

5. FINDINGS

5.1. Descriptive Statistics

Table 2 gives the information about descriptive statistics about factors that impact the firm's performance in Vietnam. As can be seen from the table, the responses have the mean values ranging from 2.7100 (the lowest value) to 4.4150 (the highest value), meaning that the respondents' answers were positive. In addition, the standard deviation varies from 0.7179 to 1.4861. The values of skewness ranged from -1.6925 to 0.3212; the values of kurtosis were -1.4222 and 2.7303, respectively.

Table 2. Descriptive statistics of factors impact on firm performance recovery.

Variables	Mean	Standard deviation	Skewness	Kurtosis
Service quality #1	3.8950	0.8411	-1.0271	1.7867
Service quality #2	4.3950	0.9183	-1.6925	2.7303
Service quality #3	4.3000	0.8797	-1.2079	1.1538
Service quality #4	3.5700	0.9378	-0.2605	-0.4868
Perceived price fairness #1	4.1800	0.8130	-0.7953	0.4263
Perceived price fairness #2	4.2900	0.7739	-0.7509	-0.3026
Perceived price fairness #3	4.1400	0.8969	-0.9975	0.9599
Perceived price fairness #4	2.7100	1.4128	0.3212	-1.1748
Customer satisfaction #1	4.2300	0.8607	-1.2749	2.2200
Customer satisfaction #2	4.1300	0.8928	-1.3288	2.3565
Customer satisfaction #3	4.1100	0.9286	-1.0200	0.9969
Customer satisfaction #4	3.9500	1.0211	-0.9003	0.5511
Customer loyalty #1	4.1750	0.8822	-1.0600	0.9962
Customer loyalty #2	4.3850	0.7745	-1.3798	2.5533
Customer loyalty #3	3.9100	1.1262	-1.0154	0.4924
Customer loyalty #4	2.7500	1.4861	0.1032	-1.4222
Flexibility #1	3.9850	0.8235	-0.6810	0.4487
Flexibility #2	4.2600	0.9256	-1.1170	0.6478
Flexibility #3	4.0650	0.9724	-0.6942	-0.4683

Variables	Mean	Standard deviation	Skewness	Kurtosis
Technology adoption #1	4.4150	0.7179	-0.8915	-0.2192
Technology adoption #2	4.3500	0.8004	-1.1328	1.0358
Technology adoption #3	4.3150	0.7994	-0.9879	0.6403
Service recovery performance #1	4.0600	0.8719	-0.9900	1.0385
Service recovery performance #2	4.1650	0.8314	-0.7418	0.1606
Service recovery performance #3	4.0150	0.8296	-0.5616	0.3286
Service recovery performance #4	3.9350	0.9082	-0.4806	-0.2267

5.2. Outer Loadings

The data collection was analysed by using the PLS-SEM method with the assistance of SmartPLS software version 4.0.9.2, followed by the PLS algorithm and bootstrapping method to find out the results. The measurement model was used to estimate the internal consistency, the covertness, and discriminant validity of the items under study. According to Henseler, Ringle, and Sinkovics (2009), the outer loading threshold of > 0.5 is required; therefore, the 6 following questions were deleted: CL4 (0.138), CS2 (0.087), PPF4 (0.081), SQ1(0,026), SQ4 (0.236) and TA2 (0.370). Finally, the Outer Loadings data is shown in Table 3:

Table 3. Outer loading results.

Code	Customer loyalty	Customer satisfaction	Flexibility	Perceived price fairness	Service recovery performance	Service quality	Technology adoption
CL1	0.780						
CL2	0.698						
CL3	0.670						
CS1		0.850					
CS3		0.688					
CS4		0.595					
F1			0.663				
F2			0.721				
F3			0.770				
PPF1				0.774			
PPF2				0.702			
PPF3				0.780			
RP1					0.664		
RP2					0.471		
RP3					0.793		
RP4					0.629		
SQ2						0.753	
SQ3						0.803	
TA1							0.794
TA3							0.842

5.3. Construct Reliability and Validity

Table 4 presents the contstruct reliability and validity results. Composite reliability (CR) is used to quantify the internal consistency of indicators on a scale. This coefficient is also known as the reliability composite. Utilizing a scale for the internal consistency of the indicators in a scale, using normalized coefficients, and taking into account the variation in the inaccuracy of the observable variables of a hidden variable are all instances of how this can be done (CR coefficient reaches the value from 0 to 1) (Hair et al., 2014). According to Nunnally and Bernstein (1994), the value of CR ranging from 0.7-0.9 is accepted. As can be seen from the Table 2, the composite reliability values of factors were higher than 0.7, indicating that all the items consistently measure the corresponding construct. AVE is an indicator that summarize convergence; as a general rule of thumb, AVE values of 0.5 and above indicate that there has been full convergence (Hair, Ringle, & Sarstedt, 2013; Wixom & Watson, 2001). With the runnable

results, all of the variables are above 0.5, indicating that the items above 0.5 can be explained by structure or latent variables, which explain more than half of the variance of the observed variables. Now the scale achieves good convergence.

Table 4. Construct reliability and validity.

Variable	Cronbach's alpha	Composite reliability (rho_c)	Average variance extracted (AVE)
CL	0.531	0.76	0.515
CS	0.542	0.758	0.517
F	0.535	0.762	0.518
PPF	0.618	0.797	0.567
RP	0.528	0.739	0.546
SQ	0.352	0.755	0.606
TA	0.508	0.802	0.67

In Table 5, discriminant validity shows how distinct a structure is when compared to other constructs in the model. The number at the top of each column is the square root value of AVE, and the number at the bottom is the correlation between the latent variables. HTMT predicts the true correlation between two variables if the data from each variable can be collected accurately and reliably. If the HTMT is greater than 1, discriminability is not guaranteed, and conversely, if the HTMT is less than 1, the discriminability is guaranteed (Garson, 2016). Therefore, the maximum recommended threshold level of HTMT is 0.9 to 0.85 (Hair et al., 2014). The findings confirm that the research model constructs have discriminant validity.

Table 5. Discriminant validity: Heterotrait-monotrait ratio (HTMT).

Variable	CL	CS	F	PPF	RP	SQ	TA
CL	0.000						
CS	0.812	0.000					
F	0.877	0.622	0.000				
PPF	0.789	0.845	0.699	0.000			
RP	0.781	0.659	0.705	0.668	0.000		
SQ	0.839	0.680	0.700	0.894	0.621	0.000	
TA	0.823	0.693	0.579	0.761	0.682	0.767	0.000

Table 6 presents the hypotheses and results of this research. The results show that service quality does not impact customer loyalty; perceived price fairness and customer satisfaction positively influence customer loyalty. In addition, customer loyalty, technology adoption, and flexibility do impact service recovery performance. The detailed information will be discussed in the next section.

Table 6. Hypotheses result.

Hypotheses	Relationships	Path coefficient	P-values	Results
H1	Service quality → Customer loyalty	0.119	0.107	Rejected
H2	Perceived price fairness → Customer loyalty	0.366	0.000	Accepted
H3	Customer satisfaction → Customer loyalty	0.292	0.000	Accepted
H4	Customer loyalty → Service recovery performance	0.247	0.012	Accepted
H5	Technology adoption → Service recovery performance	0.186	0.009	Accepted
H6	Flexibility → Service recovery performance	0.216	0.006	Accepted

6. DISCUSSION

Hypothesis 1 (H1): Service Quality will affect Customer loyalty → Rejected.

The first hypothesis examines the positive relationship between service quality and customer loyalty within the organization. Using p-value to test hypotheses and assess reliability. The higher the p-value, the lower the hypothesis reliability, the hypothesis will be significant if the p-value is lower than 0.05 (Hair et al., 2014). Based on the obtained results, the p-value of H1 is 0.107, greater than 0.05, so the path coefficient is not significant. This finding contradicts the research conducted by Lewis and Mitchell (1990); Reichheld and Detrick (2003) Leninkumar (2016); Budiastari (2016) and Naini et al. (2022), who argue that service quality has no impact on customer loyalty.

In general, the service of coffee chains is currently following the customer self-service process; staff are only in charge of cleaning, while most of the staff focus on beverage processing. This self-service type is popular with overseas models, such as the self-service customer model at Starbucks, and Highland Coffee. Although the two factors of service quality and customer loyalty in the data of this study do not influence each other, factors such as the space of the cafe and the speed of the store's fast beverage preparation have a positive effect that can not be overrated.

Hypothesis 2 (H2): Perceived Price Fairness will affect Customer loyalty → Accepted.

The P-value of H2 (Perceived Price Fairness and Customer Loyalty) is also a highly reliable result, less than 0.05 reaching the maximum level of 0.000, which means that Perceived Price Fairness and Customer Loyalty have a positive significance for customer loyalty. The results show that the path coefficient is 0.366, in the same positive direction (+) as the p-value. This study supports previous research that found the positive relationship between Perceived Price Fairness and Customer Loyalty examined by Martin et al. (2009); Hutagaol and Erdiansyah (2020); Consuegra et al. (2007), and San et al. (2022). This confirms that the effects of relationship elements on customer satisfaction demonstrate the importance of consumers' perceptions of fairness as a factor. In addition, this finding verifies that there are unique tea products and prices that are suitable for the pockets and tastes of the majority of customers in Vietnam. The price of the product is in the middle range, not too high and not too expensive. For many customers who love branded goods and have a need to drink regularly, the prices of coffee chains are considered reasonable. Price changes can affect customer loyalty. As a coffee chain brand, prices include brand and product quality, so fairness and pricing can affect company loyalty.

Hypothesis 3 (H3): Customer Satisfaction will affect Customer loyalty → Accepted.

With the results obtained in Hypothesis 3, it can be seen that p-value reaches 0.000, reaching the lowest level, which means that the reliability of the hypothesis is high. The result of the path coefficient is 0.292, the relationship has a positive index with the variables, so it can be concluded that Customer Satisfaction positively affects Customer loyalty in the organization. This result confirms the previous findings by Reichheld and Sasser (1990); Ganiyu (2017), and San et al. (2022). Moreover, the study also shows that drinks from coffee chains are loved by many people, and coffee chains have a stable service quality. Customer satisfaction is always something that businesses focus on because it is indispensable if they want to have loyal customers. Product users love the store's products, which allows the coffee chain to satisfy customers, among other factors.

Hypothesis 4 (H4): Customer loyalty will affect Service Recovery Performance → Accepted.

Hypothesis describes the relationship between Customer Loyalty and Service Recovery Performance, resulting in two factors that positively impact each other. The P-Value of H4 reached 0.012, lower than 0.05, the relationship is significant between the two variables. Compared with the previous research results, the majority of studies show a positive impact on Customer loyalty and Service Recovery Performance, and the results are similar to the results obtained in the study. In a study, customer loyalty affects the resilience of the company, and this research shows that if the company is in trouble or has terrible news, customer loyalty will be a critical factor essential to helping the company recover (Lee et al., 2020). Other research says that a company has high resilience when it has a loyal customer base for its company, so customer loyalty affects the ability and recovery plan of the business (Rew &

Minor, 2018). Regarding the items of the research, it is clear that difficult market conditions have caused losses to coffee shops in general and coffee chains in particular. The competitive market causes many coffee companies to close or reduce their branches. However, the number of customers who love the brand is the key to recovering coffee chains. The remedy also comes from coffee chains receiving and handling material problems and answering customers' questions. Maintain loyal customers and attract new loyal customers.

Hypothesis 5: Technology Adoption will affect Service Recovery Performance → Accepted.

Next, for the relationship between technology adoption and recovery performance, the P-value obtained was 0.009. This means that these two factors have meaning and influence on each other. The path coefficient is only 0.186, the two factors analyzed according to customer response data have a positive effect on each other.

The result of the study is as accepted in with some research papers, these two factors have an effect on each other. The application of technology to resilience is meaningful together, the applications of technology have a positive impact, helping the company come up with many valuable strategies, making the company's recovery faster (Willocx et al., 2016). In addition, another study examined the effect of adopting technology to establish competition for more effective recovery (Kabir et al., 2018). Some coffee chains do not have their own application, or the application is too sketchy to impress users. Create an application that can help the coffee chain track their points, order under pressure, have their own promotions for customers, and capture promotions. In an increasingly developed society, other coffee chains are also applying technology to develop their companies. Based on the results obtained, the technology of adoption is weak, affecting the resilience of the company.

Hypothesis 6: Flexibility will affect Service Recovery Performance → Accepted.

In this hypothesis on evaluating the relationship between Flexibility and Service Recovery Performance, the resulting P-Value is 0.006, reaching below 0.05. The result of the path coefficient is 0.216 for the relationships. This shows that the two factors, Flexibility and Service Recovery Performance, positively impact each other.

The results obtained are similarl to some previous studies, the relationship between Flexibility and Service Recovery Performance has a positive impact on each other. In one author's research paper, the results obtained show that flexibility is a factor that has a positive meaning in enhancing the company's operations and minimizing losses and disruptions (Sáenz et al., 2018). Besides another research result, organizational flexibility affects the ability of the organization to reorganize the company's resources to deliver the product in a way that the product or service in the market environment is one of the main factors (Karman, 2020). The flexibility of coffee chains is reflected in always researching and launching branded drinks, products, and souvenirs. The chain offers drinks on a monthly or seasonal basis, offering promotions to entice customers to use new products and make purchases at the store.

7. CONCLUSION AND RECOMMENDATIONS

With today's increasingly complex society, especially impacted by epidemics and increasingly competitive markets, causing many businesses to face difficulties, each business always needs to prepare a recovery plan for their business in the face of challenges. Challenges due to scarcity of goods, unexpected events, and natural disasters. Learn and realize that to plan recovery factors for coffee chains, service quality is very important. Because coffee chains belong to the service industry, understanding the factors that contribute to developing company services is important. This study aims to understand the antecedents of customer satisfaction that influence customer loyalty and then examine what factors other than customer loyalty also influence customer loyalty. customer loyalty. After surveying the number of customers using services at major branded coffee shop chains, the PLS-SEM model was used to determine factors affecting the organization's recovery coefficient. First, the antecedents of customer satisfaction, including perception of fair price and customer satisfaction, have a positive influence on customer loyalty, except for the quality factor. Service quality has no impact. Second, from those effects, customer loyalty

positively affects service resilience. In addition, flexibility and technology adoption also positively affect service recovery performance.

Based on the information above, there are some policy implications for coffee chains to improve firm performance in these brands. Firstly, the coffee chain has quality food and services that meet customers' expectations, but it should still keep the current price because customers think that this is the right price for the value they receive, affecting customer loyalty. By doing this, these coffee stores will avoid the risk of losing loyal customers. Secondly, customers of the coffee chain will continue to support new products and trust the store's drinks, and the company can launch many new products and will be supported by customers, but they need to double check before rollout because sometimes customers will feel that the new product is less suitable than the old one. In addition, coffee chains need to address issues such as the need for inputs and the ability to adapt to disruptions (no ingredients or products). Besides, companies need to do research on creating apps for coffee chains and find ways to drive customers to use the app. The application of technology will help increase the flexibility and enhance the resilience of the company. In addition, by using high technology in taking orders, coffee chains also lower the risk of serving wrong orders to their customers.

This research has various limitations that need additional investigation and re-search. Firstly, research results may differ among nations with different economic conditions, which can impact the adaptability of businesses, particularly in coffee chain. Secondly, the different age-level populations also influence customers' coffee consumption behavior. Another issue to emphasize is that the different levels of technology application in different countries also impact the outcome of the study. Further research should conduct a longitudinal study to find out the change in behavior of factors impacting firm performance on the coffee chain in Vietnam.

Funding: This research is supported by the Banking Academy of Vietnam, Vietnam.
Institutional Review Board Statement: The Ethical Committee of the Faculty of Finance, Banking Academy of Vietnam, Vietnam has granted approval for this study (Ref. No. 16).
Transparency: The author states that the manuscript is honest, truthful, and transparent, that no key aspects of the investigation have been omitted, and that any differences from the study as planned have been clarified. This study followed all writing ethics.
Data Availability Statement: Upon a reasonable request, the supporting data of this study can be provided by Manh Tien Pham.
Competing Interests: The author declares that there are no conflicts of interests regarding the publication of this paper.

REFERENCES

Anderson, E. W., & Sullivan, M. W. (1993). The antecedents and consequences of customer satisfaction for firms. *Marketing Science, 12*(2), 125-143. https://doi.org/10.1287/mksc.12.2.125

Bassey, F. O. (2014). *The effect of perceived price fairness on customer satisfaction and loyalty*. Master of Science in Tourism Management, Eastern Mediterranean University, Gazimagusa, North Cyprus.

Bolton, R. N., & Lemon, K. N. (1999). A dynamic model of customers' usage of services: Usage as an antecedent and consequence of satisfaction. *Journal of Marketing Research, 36*(2), 171-186. https://doi.org/10.2307/3152091

Budiastari, S. (2016). The influence of product quality, price perception and brand image on satisfaction and customer loyalty holcim concrete readymix in Jakarta. *Jurnal Riset Manajemen Sains Indonesia, 7*(2), 345-362.

Chi, Q. (2021). *How are famous coffee companies doing after the "first year of Covid-19"?* Retrieved from https://danviet.vn/cac-hang-ca-phe-ten-tuoi-lam-an-ra-sao-sau-nam-covid-19-thu-nhat-50202114711923 95.htm

Consuegra, M. D., Molina, A., & Esteban, A. (2007). An integrated model of price, satisfaction and loyalty: An empirical analysis in the service sector. *Journal of Product & Brand Management, 16*(7), 459-468. https://doi.org/10.1108/10610420710834913

Das, S., Kundu, A., & Bhattacharya, A. (2020). Technology adaptation and survival of SMEs: A longitudinal study of developing countries. *Technology Innovation Management Review, 10*(6), 64-72. https://doi.org/10.22215/timreview/1369

Dawes, A. J., Keogh, R., Andrillon, T., & Pearson, J. (2020). A cognitive profile of multi-sensory imagery, memory and dreaming in aphantasia. *Scientific Reports*, *10*(1), 10022. https://doi.org/10.1038/s41598-020-65705-7

Dhisasmito, P. P., & Kumar, S. (2020). Understanding customer loyalty in the coffee shop industry (A survey in Jakarta, Indonesia). *British Food Journal*, *122*(7), 2253-2271. https://doi.org/10.1108/BFJ-10-2019-0763

Flynn, B., Cantor, D., Pagell, M., Dooley, K. J., & Azadegan, A. (2021). From the editors: Introduction to managing supply chains beyond Covid-19-preparing for the next global mega-disruption. *Journal of Supply Chain Management*, *57*(1), 3-6.

Ganiyu, R. (2017). Customer satisfaction and loyalty: A study of interrelationships and effects in Nigerian domestic airline industry. *Oradea Journal of Business and Economics*, *2*(1), 7-20.

Garson, G. D. (2016). *Partial least squares: Regression and structural equation models*. Asheboro: Statistical Associates Publishers.

General Statistics Office. (2023). *Press release on population, employment situation in 2023, Vietnam*. Retrieved from https://www.gso.gov.vn/du-lieu-va-so-lieu-thong-ke/2023/12/thong-cao-bao-chi-ve-tinh-hinh-dan-so-lao-dong-viec-lam-quy-iv-va-nam-2023/#:~:text=T%C3%ADnh%20chung%20n%C4%83m%202023%2C%20l%E1%BB%B1c,lao%20%C4%91%E1%BB%99ng%20c%E1%BB%A7a%20c%E1%BA%A3%20n%C6%B0%E1%BB%9Bc

Gereffi, G. (2020). What does the COVID-19 pandemic teach us about global value chains? The case of medical supplies. *Journal of International Business Policy*, *3*(3), 287-301.

Hair, J. F., Sarstedt, M., Hopkins, L., & Kuppelweiser, V. G. (2014). Partial least squares structural equation modeling (PLS-SEM): An emerging tool in business research. *European Business Review*, *26*(2), 106-121. https://doi.org/10.1108/EBR-10-2013-0128

Hair, J. F. J., Ringle, C. M., & Sarstedt, M. (2013). Partial least squares structural equation modeling: Rigorous applications, better results and higher acceptance. *Long Range Planning: International Journal of Strategic Management*, *46*(1-2), 1–12. https://doi.org/10.1016/j.lrp.2013.01.001

Harcourt, H., & Ateke, B. W. (2018). Customer-contact employee empowerment and resilience of quick service restaurants. *European Journal of Human Resource Management Studies*, *1*(2), 1-12.

Henseler, J., Ringle, C. M., & Sinkovics, R. R. (2009). The use of partial least squares path modeling in international marketing. New Challenges to International Marketing (Advances in international Marketing). In (Vol. 20, pp. 277-319). Leeds: Emerald Group Publishing Limited. https://doi.org/10.1108/S1474-7979(2009)0000020014.

Hutagaol, D. C., & Erdiansyah, R. (2020). *The effect of service quality, price, customer satisfaction on customer loyalty of air Asia customers*. Paper presented at the Tarumanagara International Conference on the Applications of Social Sciences and Humanities (TICASH 2019), Atlantis Press.

Jalil, M. F., Ali, A., & Kamarulzaman, R. (2022). Does innovation capability improve SME performance in Malaysia? The mediating effect of technology adoption. *The International Journal of Entrepreneurship and Innovation*, *23*(4), 253-267. https://doi.org/10.1177/14657503211048967

Javed Ahmad, M., & Zakaria, N. (2018). Service recovery performance: A critical review of literature. *Pakistan Journal of Humanities and Social Sciences*, *6*(3), 390-411.

Johnson, M. D., & Fornell, C. (1991). A framework for comparing customer satisfaction across individuals and product categories. *Journal of Economic Psychology*, *12*(2), 267-286. https://doi.org/10.1016/0167-4870(91)90016-m

Kabir, K. A., Tahmeem, S., & Sugandha, S. M. (2018). Impact of customer relationship management on customer loyalty: Evidence from Bangladesh's banking industry. *International Journal of Business, Economics and Law*, *15*(5), 92-101.

Karman, A. (2020). Flexibility, coping capacity and resilience of organizations: Between synergy and support. *Journal of Organizational Change Management*, *33*(5), 883-907. https://doi.org/10.1108/jocm-10-2019-0305

Laverie, D. A., & Arnett, D. B. (2000). Factors affecting fan attendance: The influence of identity salience and satisfaction. *Journal of Leisure Research*, *32*(2), 225-246. https://doi.org/10.1080/00222216.2000.11949915

Lee, J.-Y., Kim, S.-W., & Kim, J.-M. (2020). The impact of community disaster trauma: A focus on emerging research of PTSD and other mental health outcomes. *Chonnam Medical Journal*, *56*(2), 99-107. https://doi.org/10.4068/cmj.2020.56.2.99

Leninkumar, V. (2016). The effect of service quality on customer loyalty. *European Journal of Business and Management*, *8*(33), 44-49.

Lewis, B. R., & Mitchell, V. W. (1990). Defining and measuring the quality of customer service. *Marketing Intelligence & Planning*, *8*(6), 11-17.

Liu, C. L., & Lee, M. Y. (2018). Integration, supply chain resilience, and service performance in third-party logistics providers. *The International Journal of Logistics Management*, *29*(1), 5-21. https://doi.org/10.1108/IJLM-11-2016-0283

Martin, W. C., Ponder, N., & Lueg, J. E. (2009). Price fairness perceptions and customer loyalty in a retail context. *Journal of Business Research*, *62*(6), 588-593. https://doi.org/10.1016/j.jbusres.2008.05.017

Meis, M. (2018). *The relationship between brand experience and customer perceived service quality: Empirical insights into the experience-seeking and service-oriented economy*. Bachelor Thesis at FH Aachen University of Applied Sciences, Germany.

Milin, P., & Hadzic, O. (2011). Moderating and mediating variables in psychological research. *Anxiety*, *15*, 20. https://doi.org/10.1007/978-3-642-04898-2_631

Naini, N. F., Santoso, S., Andriani, T. S., & Claudia, U. G. (2022). The effect of product quality, service quality, customer satisfaction on customer loyalty. *Journal of Consumer Sciences*, *7*(1), 34-50.

Nguyen, H. (2019). *Reasons for the failure of many large coffee chains in Vietnam*. Master of Business Administration at Andrews University, USA.

Nikolopoulos, K., Punia, S., Schäfers, A., Tsinopoulos, C., & Vasilakis, C. (2021). Forecasting and planning during a pandemic: COVID-19 growth rates, supply chain disruptions, and governmental decisions. *European Journal of Operational Research*, *290*(1), 99-115. https://doi.org/10.1016/j.ejor.2020.08.001

Nunnally, J. C., & Bernstein, I. H. (1994). The assessment of reliability. *Psychometric Theory*, *3*, 248-292.

Oliver, R. L. (1980). A cognitive model of the antecedents and consequences of satisfaction decisions. *Journal of Marketing Research*, *17*(4), 460-469. https://doi.org/10.2307/3150499

Pugh, S. D., Dietz, J., Willey, J. W., & Brooks, S. M. (2002). Driving service effectiveness through employee-customer linkages. *The Academy of Management Executive*, *16*(4), 73-84. https://doi.org/10.5465/ame.2002.8951330

Quang, T. (2019). *Why do coffee chains have winners and losers?*, *BrandsVietnam*. Retrieved from https://www.brandsvietnam.com/18597-Vi-dau-cac-chuoi-ca-phe-co-nguoi-thanh-cong-ke-that-bai

Quyen, T., & Ha, N. N. (2021). *'Lifesaver' during the COVID-19 pandemic for the service industry*. *Vietnamplus*. Retrieved from https://www.vietnamplus.vn/phao-cuu-sinh-thoi-dai-dich-covid-19-cho-nganh-dich-vu-post717018.vnp

Quynh, N. (2023). *The fierce battle between luxury coffee chains: Highlands Coffee is unmatched, Phuc Long is bold, Starbucks is calm, The Coffee House is defensive*, *Cafebiz*. Retrieved from https://cafebiz.vn/cuoc-chien-nay-lua-giua-cac-chuoi-ca-phe-sang-chanh-highlands-coffee-vo-doi-phuc-long-bung-lua-starbucks-binh-tinh-the-coffee-house-thu-the-1762310091428335.chn

Reichheld, F., & Detrick, C. (2003). Loyalty: A prescription for cutting costs. *Marketing Management*, *12*(5), 24-24.

Reichheld, F. F., & Sasser, W. E. (1990). Zero defectons: Quality comes to services. *Harvard Business Review*, *68*(5), 105–111.

Rew, D., & Minor, M. (2018). Consumer resilience and consumer attitude towards traumatic events. *Journal of Customer Behaviour*, *17*(4), 319-334. https://doi.org/10.1362/147539218X15445233217832

Saad, N. A., Elgazzar, S., & Kac, S. M. (2022). Investigating the impact of resilience, responsiveness, and quality on customer loyalty of MSMEs: Empirical evidence. *Sustainability*, *14*(9), 1-20. https://doi.org/10.3390/su14095011

Sáenz, M. J., Knoppen, D., & Tachizawa, E. M. (2018). Building manufacturing flexibility with strategic suppliers and contingent effect of product dynamism on customer satisfaction. *Journal of Purchasing and Supply Management*, *24*(3), 238-246. https://doi.org/10.1016/j.pursup.2017.07.002

San, V., Kijkasiwat, P., & Abbasi, A. (2022). Understanding service quality and price fairness to customer loyalty in the coffee shop industry in Thailand. *International Journal of Social Science Research*, *4*(1), 505-518.

Siagian, H., Tarigan, Z. J. H., & Jie, F. (2021). Supply chain integration enables resilience, flexibility, and innovation to improve business performance in COVID-19 era. *Sustainability*, *13*(9), 6-49. https://doi.org/10.3390/su13094669

Souiden, N., & Pons, F. (2009). Product recall crisis management: the impact on manufacturer's image, consumer loyalty and purchase intention. *Journal of Product & Brand Management*, *18*(2), 106-114. https://doi.org/10.1108/10610420910949004

Srinivasan, R., & Swink, M. (2018). An investigation of visibility and flexibility as complements to supply chain analytics: An organizational information processing theory perspective. *Production and Operations Management*, *27*(10), 1849-1867. https://doi.org/10.1111/poms.12746

Srivong, A. T., Daungprom, D., & Srisunthron, C. (2021). Quality of service influencing customer loyalty of Coffee Shop. *Psychology and Education*, *58*(4), 3767-3770. http://psychologyandeducation.net/pae/index.php/pae/article/view/5434/4685

Walker, B., Holling, C. S., Carpenter, S. R., & Kinzig, A. (2004). Resilience, adaptability and transformability in social–ecological systems. *Ecology and Society*, *9*(2), 1-9. https://doi.org/10.5751/es-00650-090205

Wijaya, N., Syahnur, S., & Landra, N. (2016). The influence of academic service quality and price (Education Costs) on word of mouth through student satisfaction as an intervening variable (Study on Bali Hospitality School LPK). *Scientific Journal of Hospitality Management*, *6*(2), 35-48.

Willocx, M., Vossaert, J., & Naessens, V. (2016). *Comparing performance parameters of mobile app development strategies.* Paper presented at the International Conference on Mobile Software Engineering and Systems.

Wixom, B., & Watson, H. (2001). An empirical investigation of the factors affecting data warehousing success. *MIS Quarterly*, *25*(1), 17-41. https://doi.org/10.2307/3250957

Zhang, D., & Zheng, W. (2022). Does COVID-19 make the firms' performance worse? Evidence from the Chinese listed companies. *Economic Analysis and Policy*, *74*, 560-570. https://doi.org/10.1016/j.eap.2022.03.001