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EDITORS' REMARKS

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THE ROLE OF POPULATION IN ECONOMIC GROWTH EVIDENCE FROM CAMBODIA

Dr. TAN Saroeun[1]

ABSTRACT

The Kingdom of Cambodia is located in Southeast Asia, which is generally seen as the world's most dynamic economic region. After ten years of macroeconomic growth and stability, with 16,767,842 million people living there in 2022, Cambodia is becoming more and more integrated with the region. The country's economic reconstruction has come a long way since 1993. Despite the global economic downturn that stopped Cambodia's growth in 2020–2022, the nation made a strong comeback in 2023. The bulk of the workforce in Cambodia is still employed in tourism and subsistence farming, and the nation is still mostly an agricultural one. Since the population boosts GDP and creates jobs for 8,987,754 people, it is considered one of the key economic pillars. To help the policy makers or plan makers, the present study analyzes the impact of population on Cambodia's economic growth, focusing on its long-run and short-run effects, and their influence on future labor force demands. Referring to the result of Unit root, all the logarithm time-series variables are significant at the first difference, I (1). In the case, the study uses Johansen's Cointegration technique for Vector Error Correlation Model (VECM) to analyze the relationship between population and economic growth, using the LGDP per capita (LCPG) model as a dependent variable and independent variables like population, labor forces, FDI and employment. The result of VECM shown that the regression equation C (1) has a long-run cointegration and short-run causality from GDP per capita (LCPG) to Foreign direct investment (LFDI). Further, GDP per capita (LCPG) to population growth (LPOP). Based on the result, the Royal government policymakers should implement regulations for cheap human capital, strengthen education and vocational training, and foreign investment attraction. Sustainable and equitable distribution of urban and rural expansion advantages is crucial. Infrastructure for affordable services, transportation, and information should be expanded, and labor income leakage should be reduced.

Keywords: *Population, economic growth*

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1. INTRODUCTION

The population is the building block of society and is intimately related to factors like employment growth and the number of laborers in a community. They are the ones who collect the nation's macro and microeconomic revenues. The idea that "population growth allows for the expansion of labor and products which then grows the economy" was so defined by several scholars. Some contend that as more people eventually consume more of the society's limited resources, population expansion has been and will continue to be troublesome and will limit potential growth over the long run (Van Der Linden, 2017). According to the U.S. Census Bureau (2017), by 2050, the natural population growth rate in high-income nations will be less than 0.3% per year. While easing some of the challenges associated with rapid population growth in low-income nations, increased migration from low- to high-income countries might counterbalance these low and negative natural population growth rates.

One of the most beneficial characteristics of most emerging countries is their population, which may serve as a catalyst for economic growth. Population development continues to receive enormous and increasing global investment since it is widely acknowledged to be important for economic growth. The buying power created in the destinations by the income and expenses of level of life is the population's most notable economic impact. Population increase has gained a great deal of attention as an activity that produces a variety of social and economic advantages, including larger workforces, innovation and economic growth, diversity in ethics and races, and the ability to influence talent, corporations, and opinions. All of these efforts to eliminate regional disparities also lessen

the talent and labor force leakage caused by immigration. The population's size, composition, mobility, and distribution may all influence how quickly the economy develops. In order to maintain economic growth, a developed nation with low population density and a low proportion of employable individuals must see a rise in population.

Population growth can stimulate economic expansion and a larger labor force, promoting sustainable development through innovation and innovation. A diverse population fosters greater diversity and idea exchange, while a growing talent pool supports sustainable development. However, population growth also presents challenges such as resource shortages, environmental issues, healthcare demands, and climate change. These factors can lead to pollution, deforestation, and increased greenhouse gas emissions. Global coordination and collaboration are needed to address these issues, while addressing the growing population can help address these challenges and promote sustainable development. Overall, addressing population growth and environmental concerns is crucial for sustainable development (Daniil F, 2023).

The Kingdom of Cambodia is located at the heart of what has been considered as the most dynamic region of the world economy, i.e., Southeast Asia. In 2022, with a population of 16,767,842 million, Cambodia is increasingly integrating with the region and has enjoyed a decade of macroeconomic stability and growth. The country has made substantial progress in its economic reconstruction since 1993. Although the growth of the country was interrupted by the global economic downturn in 2020-2022, Cambodia staged a strong recovery in 2023. Cambodia remains largely agrarian with a large percentage of the population engaged in subsistence agriculture and tourism. Population is considered as one of the significant pillars of the economy as it creates jobs for 8,987,754 people and contributes to GDP of 29.96 billion USD in 2022. However, the present study observed that the rate of growth is projected to decrease from 3.54% in 1985 to 1.06% in the year 2023, at which point it should begin to decline. Further, the fertility rate stood 6.31 in 1985 to 2.28 in the year 2023, i.e., it has decreased 4.03 and will continue declining only 1.89 in 2050, according to WPP forecasted (World Population Prospects - Population Division - United Nations, 2022). In the case, the specific plans must be designed to meet the future demands for laborer forces in the country. Thus, keeping the above in mind, the present study makes a modest attempt (1) to analyze the impact of population on economic growth in Cambodia, (2) to highlight the long-run and short-run effects of population in Cambodia, as well as their influence on economic growth and prospects.

2. LITERATURE REVIEW

Population growth can positively impact the economy by increasing access to labor, productivity, and output. This leads to increased demand for goods, resulting in increased output and GDP, thus promoting economic growth. Population growth can negatively impact the economy, as it leads to increased demand for goods and lower productivity. This can result in higher prices due to the lack of access to labor and increased demand for goods in the United States (Population and Economic Growth: Effects & Relationship, n.d.). Most densely populated countries in the world, such as Bangladesh, which has a population density of over 3310 people per square mile—three times that of India and 36 times that of the US—have

experienced various challenges as a result of their rapidly expanding populations, which is placing a strain on economic growth (Chowdhury & Hossain, 2018). However, in order to promote sustainable economic growth, the World Bank and the IMF are pressuring developing countries to control the rise in birth rates (Sibe et al., 2016).

The Sub-Saharan region has a low quality of living in terms of housing, health care, education, and other areas, hence concerns about the region's potential for economic progress have been raised by the fast population rise (Peter & Bakari, 2019). Another research by Tyers & Golley (2013) examines the relationship between population number and economic growth in China and India. The standard of life has been proxied by per capita income, technological progress, education level, and fertility rate. Chen (2013) then employed thermo-dynamics as a variable in his research. The biological systems, which include human societies, are connected to these factors. According to the findings of the present study, economic growth was measured using the GDP. Undoubtedly, the ongoing worldwide population growth has had an impact on a wide range of factors, such as the age distribution, international migration, economic disparities, and the size of a nation's labor force. Additionally, these have impeded global economic progress, especially in poorer nations (Peterson, 2017). This study analyzes GDP per capita changes, growth rates in rural and urban populations, and undernourishment prevalence in low-income, lower-middle-income, and upper-middle-income countries using World Bank data from 2001-2020 and econometric approaches. (Miladinov, 2023) A long-run equilibrium relationship between population increases and economic development in Thailand is demonstrated by different research on the subject conducted by Furuoka (2013). In additional, Al-

Saraireh (2014) found that there was a positive correlation with government spending and a negative correlation with the unemployment rate among migrant labor forces, with higher expenditures leading to higher rates of unemployment among native labor forces. Their conclusion indicates that unemployment will hinder their country's economic growth. At the same time UN report (2014) explained that South Asia has experienced a long period of robust economic growth and it has been among the fastest growing in the world. Sandip Sarker et al. (2016) study uses panel data analysis to identify the causal relationship between urban population and South Asian economic growth. The Pedroni cointegration test and Vector Error Correction Model suggests a long-term causality, indicating significant long-term impact of urban population growth. Using secondary data, Sarwar et al. (2013) examined the effect of human capital accumulation on Pakistan's economic growth between 1973 and 2012. The employed labor force, population, education spending, health spending, and fixed capital all have negative relationships with economic growth; in contrast, growth is favorably impacted by health spending and fixed capital creation.

Research on population expansion's immediate benefits is extensive, but there is a lack of long-term sustainability studies, especially concerning resource depletion, environmental effects, and social service burdens. This is particularly crucial for developing nations (Sachs, 2020). Studies also lack focus on gender dynamics, as underrepresentation of women in the workforce can distort economic growth estimates. Few studies examine gender inclusion in relation to population growth and economic development (Duflo, 2012). Further, Studies often overlook regional disparities by Jedwab, Christiaensen, and Gindelsky (2017) highlighted

that the economic impact of population growth in rural or peripheral regions, particularly in developing countries where rural-urban differences exist in education, employment, and healthcare access. Finally, there is a significant gap in the understanding of how international migration influences economic growth, especially in terms of remittances, brain drain, and the movement of skilled labor between developing and developed countries (Dustmann and Gerlach, 2016).

The study found a positive correlation between government spending and unemployment rates among migrant labor forces in South Asia, indicating that higher expenditures lead to higher unemployment rates among native labor forces. However, the study also found that urban population growth has a long-term causality, with negative relationships between the employed labor force, population, education spending, health spending, and fixed capital, while growth is positively impacted by health spending and fixed capital creation.

3. METHODOLOGY

Development and economic progress are fueled by population. Being a significant factor in the generation of labor forces, it lowers poverty and advances the socioeconomic advancement of the country. The population's ability to support social and economic advancement is now widely acknowledged on a global scale. Therefore, the anticipated economic growth is one of the main reasons an area would want to market itself as having a high-quality populace. In the instance of Cambodia, the number of people living there, the labor force participation rate, and employment are regarded as independent variables, and the per capita GDP is regarded as a dependent variable, in order to determine the effect of population on the economic growth of the nation. The findings of this study's regression model are displayed in the following:

Econometric Model

To examine the relationship between population and economic growth, the specified model has been analyzed by employing the method of Johansen's Cointegration Technique. The gross domestic product per capita is dependent variable, while population growth, labor forces growth, and employment growth have been considered as independent variables. An econometric model of the selected variables used in this study is given as:

$$LCPG = \beta 1 + \beta 2\ LPOP + \beta 3\ LLAB + \beta 4 LFDI + \beta 5\ LEPM + \mu$$

where:

LCPG = Log of Gross Domestic Product per capita

LPOP = Log of Population growth

LLAB = Log of Labor Force growth and μ = Error Term

LFDI = Log of Foreign direct investment

LEMP = Log of Employment growth

The current study discussed the unit root test to check the stationarity which is prerequisite for cointegration. We also applied the Johansen's Cointegration Test, after that we discussed the Vector Error Correction Model (VECM) which is designed to deal non-stationary series that are known to be co integrated and at the end Granger causality test is described.

4. DATA ANALYSIS

Referring to the objectives of study, the data analysis bases on the empirical statistic performance. In the case, the section is divided into 4 parts. First, descriptive serial statistic is carried out. Next, an VECM regression model is performed in second parts, such as the econometric tools viz., Augmented Dickey Fuller (ADF) and Phillips-Perron (PP) test, Johansen cointegration test, Vector error correction models (VECM) is applied to identify the existence of long-run relationship and Wald test is employed to identify the short run relationship between the two variables used in the study viz., LCPG, LPOP, LLAB, LFDI, and LEMP.

Descriptive Analysis

Before the stationary check for the time-series variables, the descriptive statistic is performed to check such as mean. Standard deviation, skewness and Kurtosis and Jarque- Bera as shown in the following table:

Table 1: Result of Descriptive data

Statistics	LCPG	LPOP	LLAB	LFDI	LEMP
Mean	6.453381	16.42570	15.68794	20.19435	15.68043
Median	6.522607	16.44227	15.70088	20.54990	15.69043
Maximum	7.488048	16.63497	16.01499	22.02156	16.01137
Minimum	5.510799	16.14216	15.29601	17.80679	15.28786
Std. Dev.	0.680359	0.144737	0.203088	1.448517	0.205707
Skewness	0.085547	-0.293704	-0.109475	-0.173800	-0.089392
Kurtosis	1.490430	1.939980	2.102580	1.470336	2.085297
Jarque-Bera	2.885094	1.835862	1.066626	3.075871	1.085807
Probability	0.236325	0.399344	0.586658	0.214824	0.581059
Sum	193.6014	492.7711	470.6382	605.8305	470.4128

Sum Sq. Dev.	13.42377	0.607516	1.196102	60.84786	1.227148
Observations	30	30	30	30	30

Source: Author's own computation

In Table 1, the detailed descriptive analysis is carried out. It exhibits that the average of gross domestic product per capita (LCPG) is 6.453381 with standard deviation 0.680359. The average of population (LPOP) is 16.42570 with standard deviation is 0.144737. the average of labor forces (LLAB) is 15.68794 with standard deviation is 0.203088. The average of foreign direct investment (LFDI) is 20.19435 with standard deviation is 1.448517 and the average of employment (LEMP) is 15.68043 with standard deviation is 0.205707.

To give insights of the distribution shape, the Skewness and Kurtosis are checked. In the present descriptive result, The Skewness of LCPG, LPOP, LLAB, LFDI, and LEMP values (0.085547, -0.293704, -0.109475, -0.173800, -0.089392) are excellent because they located between−1 and +1. Further, the Kurtosis of LCPG, LPOP, LLAB, LFDI, and LEMP also value (1.490430,1.939980,2.102580,1.470336,2.085297) less than 3. Thus, it is concluded that they are normal skewness and platykurtic. i.e., the dataset has, lighter tails than a normal distribution (Hair et al., 2022). When both skewness and kurtosis are close to zero, the pattern of responses is considered a normal distribution (George & Mallery, 2019) and (Hair et al., 2022).

Another normal distribution check, based on the probability of Jarque-Bera of LCPG, LEMP, LPOP and LLBF (0.236325, 0.581059, 0.214824, 0.399344, 0.586658) are larger than 0.05. Thus, the null hypothesis: The residual of LCPG, LEMP, LPOP and LLBF are normal distribution is

accepted. In the case, we concluded that all residuals of dependent variables in the VECM model are normal distribution.

Unit root Statistics

Referring to the original time series variables model, population growth (POP), employment growth (EMP) and labor force (LAB) have been considered as the independent variables, while GDP per capita (CPG) has been taken as dependent variable. As all the serial variables had no stationary at the first differences I (1), the proxy of them were carried out into logarithm, such as LCPG = Log (CPG), LPOP=Log (Population growth), LFDI = Log (Foreign direct investment), LEMP = Log (Employment growth), and LLAB =Log (Labor force growth). The study is fully based on time series data and hence there arises a need to check for the stationarity in the series. Augmented Dickey Fuller and Phillips-Perron test is used to identify the stationarity in the series of data.

Ho: Data are not stationary (Unit root exists)
Ha: Data are stationary (Unit root does not exist)

If ADF statistics exceed critical value or p-value is significant (less than 5 percent), the null hypothesis (Ho) can be rejected. Hence the alternative hypothesis (Ha) is accepted which means the data are stationary. The analysis starts by checking the unit root test of series variables using the augmented Dickey Fuller (ADF) (1979, 1981) and Phillips-Perron (PP) (1988) Unit Root Tests are performed both. The result of all the series variables is stationary at the first difference I (1). Bases on the result of stationary, Vector error correction models (VECM) has been performed in this study to examine the impact of population on economic growth in Cambodia.

Table 2: The result of stationary

Variables	Order	ADF	PP	Result
LCPG (GDP per capita)	I (0)	-2.314365	0.128756	Stationary
LPOP (Population growth)	I (0)	-2.314365	-7.874903***	Non & Stationary
LLAB (Labor force growth)	I (0)	-0.495121	-1.709965	Nonstationary
LFDI (Foreign direct invest.)	I (0)	-1.129370	-1.135902	Nonstationary
LEMP (Employment growth)	I (0)	-0.551150	-1.699958	Nonstationary
LCPG	I (1)	-0.872372***	-3.997326***	Stationary
LPOP	I (1)	-0.872372**	-	Stationary
LLAB	I (1)	-4.722633***	-4.669252***	Stationary
LFDI	I (1)	-3.754936***	-3.870834***	Stationary
LEMP	I (1)	-4.172167***	-4.169892***	Stationary

Source: Author's own computation

Notes: ADF stands for Augmented Dickey-Fuller, PP for Phillips; denotes the first difference of variable under consideration. The symbol (*) indicates rejection of null hypothesis at 10%, (**) indicates rejection hypothesis at 5% and (***) indicates rejection of null hypothesis at the 1% level.

Johansen Cointegration statistics

Before the Johansen Cointegration of among variables performed, the first step is to select optimal lag length by computing unrestricted VAR model based on various optimal lag length criteria. Table 3 presents the results of optimal lag length selection criteria of the unrestricted VAR model.

Table 3: Result of lag criteria

Lag	LogL	LR	FPE	AIC	SC	HQ
0	235.4344	NA	7.78e-13	-16.53103	-16.34071	-16.47285
1	461.9883	372.1957	2.32e-19	-31.57059	-30.61902*	-31.27969
2	485.4715	31.87006*	1.47e-19*	-32.10511*	-30.39227	-31.58148*

Source: Author's own computation

By LR, FPE, AIC, SC and HQ criteria the optimal lag length is two. After the selection of optimal lag length, the next step is to apply Johansen Cointegration Test. Johansen cointegration test with linear trend and intercept is shown in the table 3(a). When the variables are integrated with same order, the Johansen test of cointegration can be applied. Referring to the Johansen (1988) approach determines the number of cointegrated vectors for any given number of non-stationary variables of same order. Johansen uses two statistics for testing the cointegration.

Ho: There is no cointegration between LCPG and LEMP, LPOP and LLAB (r = 0)
Ha: There is cointegration between LCPG and LEMP, LPOP, and LLAB (r >0)

The null hypothesis reveals that the number of distinct cointegrating vector is less than or equal to "r" against a general alternative that it is more than "r". If the test statistics computed is greater than the table value, Ho is rejected. Thus, there are r cointegrating vectors. The presence of a cointegrating relation forms the basis of the vector error specification.

Table 3(a) Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	**Eigenvalue**	**Trace Statistic**	**0.05 Critical Value**	**Prob.****
None *	0.877075	125.1464	69.81889	0.0000
At most 1 *	0.693168	68.54943	47.85613	0.0002
At most 2 *	0.524508	36.65017	29.79707	0.0069
At most 3 *	0.415827	16.57825	15.49471	0.0342

At most 4	0.073602	2.064189	3.841466	0.1508

Source: Author's own computation

Trace test indicates 4 cointegrating eqn (s) at the 0.05 level

* Denotes rejection of the hypothesis at the 0.05 level

**MacKinnon-Haug-Michelis (1999) p-values

Based on the result of trace statistic, the trace statistic values of cointegrating equation; none, at most 1, at most 2, and at most 3 are larger than the critical values and their p-values less than 0.05. In the case, the null hypothesis (Ho1): There is no cointegration between LCPG, and LEMP, LFDI, LPOP and LLAB are rejected at 5 percent. In other word, it is concluded that the four No. of CE(s) have cointegration between LCPG and LEMP, LFDI, LPOP and LLAB.

Table 3(b). Unrestricted Cointegration Rank Test (Maximum Eigenvalue)

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Value	Prob.**
None *	0.877075	56.59693	33.87687	0.0000
At most 1 *	0.693168	31.89926	27.58434	0.0131
At most 2	0.524508	20.07192	21.13162	0.0698
At most 3 *	0.415827	14.51406	14.26460	0.0457
At most 4	0.073602	2.064189	3.841466	0.1508

Source: *Author's own computation*

Max-eigenvalue test indicates 4 cointegrating eqn (s) at the 0.05 level

* Denotes rejection of the hypothesis at the 0.05 level

**MacKinnon-Haug-Michelis (1999) p-values

On the basis of maximum Eigenvalue statistic, the maximum Eigenvalue of cointegrating equation, (none, at most 1, and at most 3) are more than the critical values and their p-values are less than 0.05. In the case, the

null hypothesis (Ho2): There is no cointegration between LCPG and LEMP, LFDI, LPOP and LLAB is rejected. Hence, we concluded that the three variables in No. of CE(s) have cointegration between LCPG and LEMP, LPOP and LLAB.

Johanson Normalization Interpretation

Table 4. Normalized Cointegrating Coefficients

LCPG	LEMP	LFDI	LLAB	LPOP
1.000000	-14.59655	-0.140799	14.18838	-4.835991
	(2.39566)	(0.01165)	(2.42610)	(0.34261)

Source: Author's own computation

Referring to the current result of table 4. Coefficients signs of LEMP, LFDI, and LPOP should be reversed in the normalized cointegrating equation which is representing the long-run. LCPG has been considered as dependent variable or target variable. LEMP, LFDI and LPOP has positive and significant impact on LCPG, i.e., an increase in LEMP, LFDI and LPOP will lead an increased in LCPG. In the case of LLAB, it is negative and significant impact on LCPG in the long-run. i.e., an increase in LLAB will decline in LCPG.

Totally, the model of four serial variables, LCPG and LEMP, LPOP and LFDI are cointegrated. Otherwise, the both statistics, Trace and Maximum Eigenvalue, have a long-run association. Then the current study can run restricted VAR, that is VECM model. But if the variables are not cointegrated, we cannot run VECM, rather we shall run unrestricted VAR.

Vector Error Correlation Model Statistics

Vector error correction (VEC) model is a restricted VAR (vector autoregression) designed for use with nonstationary series that are known to be cointegrated. The VEC has cointegration relations built into the specification so that it restricts the long-run behavior of the endogenous variables to converge their cointegrating relationships while allowing for short-run adjustment dynamics (Engle and Granger, 1987). The cointegration term is known as the error correction term since the deviation from long run equilibrium is corrected gradually through a series of partial short-run adjustments. If the variables are cointegrated of the same order, then valid error correction model exists between the two variables. The determination of cointegration relationship (cointegrated vector) that shows the presence of long-term relationship between variables, causality relationships must be analyzed with error correction model. The corresponding VECM model is LEMP, LFDI, LPOP and LLAB have been considered as independent variable, while D (LCPG) has been taken as dependent variable. the model is used method of Least Square (Gauss-Newton / Marquardt steps) with observations of 27 (1993 to 2022). The following is as the VECM equation.

Table 5. Result of Error Correction Coefficient

Error Correction:	D(LCPG)	D(LEMP)	D(LFDI)	D(LLAB)	D(LPOP)
CointEq1	-1.217443	-0.218977	0.006249	-0.190952	0.006484
	(0.41859)	(0.06919)	(2.63942)	(0.07123)	(0.00341)
	[-2.90844]	[-3.16492]	[0.00237]	[-2.68083]	[1.89980]

Source: Author's own computation

Error correction coefficient gives speed of adjustments within which the model will restore its equilibrium following any disturbances. The coefficient of ETC with LCPG, LEMP, and LLAB as dependent variable are negative and statistically significant indicating that there is a convergence from short dynamics toward long run equilibrium. The adjustments coefficients were 121.74, 21.89 and 19.09 percent respectively towards long run equilibrium in case of disequilibrium situation. In the case of LFDI and LPOP, the adjustment coefficient is positive but not significant which indicates the lack of significant adjustments towards long run equilibrium in any disequilibrium situation.

Vector Error Correlation Model (VECM) Equation

Referring to the VECM model, LPOP, LLAB, LFDI, and LEMP have been considered as the independent variables, while LCPG has been taken as the dependent variable. Hence, the result of VECM equation is as the following:

D(LCPG) = C(1)*(LCPG(-1) - 14.596554496*LEMP(-1) - 0.140799453796*LFDI(-1) + 14.1883812709*LLAB(-1) - 4.83599083334*LPOP(-1) + 82.1681547327) + C(2)*D(LCPG(-1)) + C(3)*D(LCPG(-2)) + C(4)*D(LEMP(-1)) + C(5)*D(LEMP(-2))+ C(6)*D(LFDI(-1)) + C(7)*D(LFDI(-2)) + C(8)*D(LLAB(-1)) + C(9) *D(LLAB(-2)) + C(10)*D(LPOP(-1)) + C(11)*D(LPOP(-2)) + C(12).

Table 6 Result of VECM

	Coefficient	Std. Error	t-Statistic	Prob.
C(1)	-1.217443	0.418590	-2.908439	0.0108
C(2)	0.615466	0.241807	2.545283	0.0224
C(3)	0.333100	0.229142	1.453688	0.1666

C(4)	-10.95467	7.017347	-1.561085	0.1394
C(5)	-1.812815	6.380182	-0.284132	0.7802
C(6)	-0.048656	0.052641	-0.924295	0.3700
C(7)	-0.120582	0.037300	-3.232749	0.0056
C(8)	10.37449	7.267206	1.427576	0.1739
C(9)	2.108703	5.822168	0.362185	0.7223
C(10)	97.10369	33.28767	2.917107	0.0106
C(11)	-6.002128	9.514382	-0.630848	0.5376
C(12)	-1.457171	0.532389	-2.737042	0.0153

R-squared	0.662837	Mean dependent var	0.064260
Adjusted R-sq.	0.415583	S.D. dependent var	0.065877
F-statistic	2.680800	Durbin-Watson stat	2.082256
Prob(F-statistic)	0.039089		

Source: Author's own computation

The result of summary model shown that R-square is 0.662837, i.e., the dependent variable (LCPG) is explained by the independent variables (LPOP, LLAB, LFDI, and LEMP) for 66.28 percent. We say other word, there is only 34.72 percent which didn't joined in the model. Thus, 3.93 percent is called disturbance or error term. Adjusted R-square is 0.415583, i.e., the dependent variable (LCPG) and independent variables (LPOP, LLAB, LFDI, and LEMP) have commonly arranged the model for 41.55 percent. Further ANOVA checks show that the independent variables (LPOP, LLAB, LFDI, and LEMP) jointly influence the dependent variable (LCPG) for p-value of F-statistic is less than 1 percent. For the value of Durbin-Watson statistic is 2.082256. Bases on Kenton (2023) clarified that DW test statistic values in the range of 1.5 to 2.5 are relatively normal. Thus, it is concluded that the result of DW is considered to be quite typical, i.e., the time-serial variables have no serial correlation.

Bases on the result, the coefficient C (1) valued in negative sign (-1.217443) and its p-value is 0.0108, significant at 5 percent. In other world, there is a long-run causality running from LPOP, LLAB, LFDI and LEMP to LCPG. Coefficient should have a negative sign showing the ability to bounce back to equilibrium. Further, the study should check whether LPOP, LEMP and LLAB have short-run causality or not. Short run coefficient C (2) A percentage increase in itself, LCPG will lead to an increase in LCPG by 0.61 percent. C (7) A percentage increase in LFDI will decline in LCPG by 0.12 percent. C (10) A percentage increase in LPOP will increase in LCPG by 97 percent. C (12) is constant or intercept.

Wald Test

The short-run causality is also tested using Wald statistic. The Wald test computes a test statistic based on the unrestricted regression. The Wald statistic measures how close the unrestricted estimates come to satisfy the restrictions under the null hypothesis. If the restrictions are in fact true, then the unrestricted estimates should come close to satisfy the restrictions. The following are the result of Wald test of LPOP, LEMP and LLAB.

Table 7. Result of Short-run

Null hypothesis	Statistic	Value	P-value	Result
C (4) D (LEMP (1)) = C (5)D(LEMP (2) = 0	F-statistic	1.273731	0.3084	Accepted
	Chi-square	2.547463	0.2798	
C (6) D (LFDI (1)) = C (7) (LFDI (2)) = 0	F-statistic	5.250011	0.0187	Rejected
	Chi-square	10.50002	0.0052	
C (8) D (LLAB (1) = C (9) D (LLAB (2) = 0	F-statistic	1.044106	0.3762	Accepted
	Chi-square	2.088211	0.3520	
C (10)D(LPOP (1) = C (11) D (LPOP (2) =0	F-statistic	4.312708	0.0331	Rejected
	Chi-square	8.625416	0.0134	

Source: Author's own computation

1. Ho = C (4) =C (5) =0

Referring to the observation of 30 years, the result of Wald test shown that the probability of Chi-square more than 5 percent. In the case, the null hypothesis: "C (2) =C (3) = 0" is accepted, i.e., There is no short-run causality from GDP per capita (LCPG) to the employment (LEMP) growth.

2. Ho2 = C (6) =C (7) =0

The result of Wald test from 30 observations shown that the probability of Chi-square less than 5 percent. In the case, the null hypothesis: "C (6) =C (7) =0" is rejected. Hence, it is concluded that there is short-run causality from GDP per capita (LCPG) to Foreign direct investment (LFDI).

3. H3 = C (8) =C (9) =0

The result of Chi-square probability from the 27 observations is insignificant (larger than 0.05). In the case, the null hypothesis: "C (8) =C (9) =0" is accepted. Thus, it is concluded that there is no short-run causality from GDP per capita (LCPG) to Number of work forces (LLAB).

4. H4 = C (10) =C (11) =0

The result of Chi-square probability from the 27 observations is insignificant (less than 0.05). In the case, the null hypothesis: "C (10) =C (11) =0" is rejected. Thus, it is concluded that there is a short-run causality from GDP per capita (LCPG) to population growth (LPOP).

Diagnostic Check

Table 8. Result of Diagnostics

Diagnostics	Statistic Value	Probability
Wald statistic	F-value = 6.120780	0.0000
Normality Check	(JB) X^2 = 0.7118	0.7005
Serial Correlation (LM) Test	F-value = 0.711536	0.5090
Heteroscedasticity	F-value = 0.804341	0.6551

Source: Author's own computation

Referring to the result of Wald test, F-value = 6.120780, p-value= 0.000 less than 1 percent. In case, the null hypothesis: C (1) =C (2) =C (3) =C (4) =C (5) =C (6) =C (7) = C (8) = C (9) = C (10) = C (11) = C (12) = 0 is rejected. Hence, this suggested that the five serial variables (LCPG and LPOP, LLAB, LFDI, and LEMP) are significant to that model fit. Further, the result of Jarque-bara (x^2) = 0.7118 and p-value = 0.7005 more than 0.05. In the case, the null hypothesis (Ho): the residuals are normal distributed is accepted. It is concluded that the observations (30) are fitted to the VECM of regression model. Another diagnostic check is Serial correlation (LM), F-value = 0.711536 and p-value = 0.5090 larger than 0.05. In the case, the null hypothesis (Ho): The residuals are serial correlation is accepted. It is suggested that the residuals are autoregression. The last one is heteroscedasticity check. Referring to F-value = 0.804341 and p-value = 0.6551 more than 0.05. In the case, the null hypothesis: the residuals are not heteroscedasticity is accepted. It is concluded that the residuals are homoscedasticity or it can say that random disturbance in the relationship between the independent variables and the dependent variable.

5. CONCLUSION

The result of summary model shown the p-value of ANOVA t-test statistic is significant, i.e. the independent variables (LPOP, LLAB, LFDI, and LEMP) have jointly influenced the dependent variable (LCPG). Further the value of Durbin-Watson statistic is between 1.5 and 2.5. In other word, all the time-serial variables have no serial correlation. In case, the current study checks the long-run causality via VECM statistic, the result indicated a long-run causality from LEMP, LFDI, LPOP, and LLAB to LCPG and the short-run causality LCPG (C (2)), LFDI (C (7)) and LPOP (C (10)) will increase, and LCPG will increase also.

Implications and strategic suggestions

Cambodia should prioritize human capital development and training to meet future labor market demands. Sustainable growth relies on increased worker productivity, upskilling opportunities, and workforce participation, particularly among women and young people. The government should foster a conducive environment for foreign direct investment through stable political and economic environments, better infrastructure, and incentives. Addressing labor market issues is crucial, with short-term measures like social safety nets and job development programs during economic downturns. Achieving a balance between economic development and sustainable resource use is essential to prevent the potential harm caused by rapid population expansion. Based on the implications, the suggestions are as the following:

1. Enhancing healthcare and education systems is crucial for transforming the growing population into a productive labor force,

enhancing life expectancy and productivity, and providing technical and vocational education to meet economic demands.
2. Cambodia should implement labor market reforms to enhance flexibility, worker training, and job security, aiming to boost labor productivity, ensure worker safety, and ensure fair compensation.
3. The government should establish regulations to attract foreign direct investment (FDI) into high-value sectors like tourism, digital infrastructure, and renewable energy, aiming to attract diverse FDI.
4. Short-term policy interventions, such as rewards or subsidies for companies hiring new employees, can help industries affected by economic downturns adapt to changes. Training initiatives for underemployed or unemployed workers can also contribute.
5. Cambodia should implement population management measures like family planning and migration tactics to prevent overpopulation and boost the economy without depleting resources.

Policymakers in Cambodia can be guided by these conclusions and recommendations to maximize the contribution of population and associated elements to long-term economic growth.

Limitation and Future research

To examine the role of population growth in economic development, independent variables, such as POP, LAB, FDI and EMP has been taken into account. The study could have provided better results, if the human capital and number of college students would have been more. Thus, the limitations of the present study have provided the insights for further research in this field.

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THE ROLE OF TOURISM IN ECONOMIC DEVELOPMENT EVIDENCE FROM CAMBODIA

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ABSTRACT

Tourism in Cambodia is a significant economic tool, contributing to economic growth and poverty alleviation. In 2023, the country attracted 3,920,000 international and 10,042,986 domestic tourists, generating $2.396 billion and providing employment for 1,724,970 people. This growth is attributed to Cambodia's unique geo-socio-cultural identity, necessitating specific tourism development plans. By 2027, international tourist arrivals are projected to reach 8,037,000, generating $4.8 billion in expenditure and providing employment for 3,389,000 people. This study aims to help government decision-makers analyze the impact of tourism on Cambodia's economic growth and determine its long-term and short-run effects. ARDL is carried out because all the time-series variables are combined the different level, I (0) and first difference I(1). The ARDL regression analysis reveals that tourist inflows, incomes, and employment jointly influence Gross Domestic Product per capita in Cambodia. The study cannot reject the null hypothesis that there is no long-run relationship and cointegration does not exist. The Estimate Error Correction Model (ECM) showed a Cointegration Equilibrium (-1) mean error correction coefficient, indicating long-term causation. Granger causality runs two-ways from Tourism Employment (TEP) to CPG, Tourist Income (TIN) to TEP, and TIF to TIN of Cambodia. The implications suggests that Cambodia should implement regulations to preserve and safeguard its historic and cultural sites, diversify its tourism through investments in technology, transportation, and hospitality for long term tourism benefits, while expand ecotourism and cultural preservation programs diversifies revenue, boosts short-term economic gains, and reduces external shock risks.

Keywords: *Tourism, economic growth, long-run and short-run cointegrations*

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1. INTRODUCTION

Tourism is a multi-trillion-dollar industry that has become a dominant force in the lives of millions globally due to technological advancements, industrialization, urbanization, and population growth. This growth has led to economic and social progress, higher real income, longer leisure time, and increasingly affordable tourist plant facilities.

The consistent increase in discretionary income, democratization of leisure, socialization of transport facilities, and diverse tourist plant facilities have motivated people worldwide to travel for tourism purposes. Tourism is one of the fastest-growing industries globally due to its numerous benefits to destinations, tourists, and the global geo-political environment. It is a valuable attribute for developing nations, acting as a pivot for economic development. The economic effect of tourism lies in the purchasing power generated in destinations through visitor expenditure. However, tourism is more than just a foreign exchange earner; it is highly labor-intensive, with the highest employment multiplier.

For World Tourism Day 2023, UNWTO addressed that the requirement for bigger and more carefully focused investments in prosperity, the environment, and humankind. Instead of relying just on conventional investments to support and foster economic development and productivity, fresh and creative solutions are needed now. Tourism is now an inseparable part of development programs in almost every country, acting as a promoter of development at both macro and micro levels.

Tourism is a crucial tool for economic development, generating foreign exchange earnings, employment, and income while promoting economic growth and alleviating poverty. The tourism industry has gained respect due to its significant economic impact. Cambodia, located in Southeast Asia, has experienced a decade of macroeconomic stability and growth, with tourism being one of its most critical economic pillars.

In 2023, Cambodia attracted 3,920,000 international tourists, and 10,042,986 being domestic tourists and contributing $ 2.396 billion to the economy and providing employment for 1,724,970 people. This number represents a 58.07% increase in international tourists compared to 2022. Cambodia's unique geo-socio-cultural identity requires specific tourism development plans. As the most attractive destination in the country, Phnom Penh, Siem Reap, coast zone and other provinces needs special attention from planners, policy makers, and government agencies. By 2027, international tourist arrivals in Cambodia are projected to reach 8,037,000, generating $4.8 billion in expenditure and providing employment for 3,389,000 people (WTTC, 2018). Therefore, specific plans must be designed to meet the future demands for tourist services in the country.

In this case, keeping the above in mind, the present study makes a modest attempt to analyze the role of tourism in economic growth Cambodia through analyzing the impact of tourism on economic growth and investigating the long-run and short-run effects of foreign tourism in Cambodia, as well as their influence on economic growth.

2. LITERATURE REVIEW

In this section, the critique is conducted against conceptual and empirical literature of the present research problem study which indicates about the

relationship between the independent and depend variables, i.e. there are many conceptual and empirical models which the previous researchers studied around the relationship between tourism development and economic growth by providing different results based on the areas, regions, models of methodology and time-series information.

2.1 Tourism and Economic Growth

Additional research conducted by UNWTO (2013) found that foreign tourists contributed trillions of dollars. It was around 1.035 billion in 2012, and in 2013, an increase of 3–4% is anticipated. Several developing nations consistently choose tourism as a means of boosting their economies and reducing poverty.

According to Athanasopoulou (2013), global tourism generates USD 1,075 billion in revenue, up from USD 1,042 billion in 2011. The costs incurred by foreign tourists on lodging, hotels, food, drinks, shopping, local shipping, and entertainment bring in USD 368 billion for the EU (27) and USD 92 billion for ASEAN. These funds are shared to provide opportunities for local involvement in economic growth.

Understanding how tourism contributes to Cambodia's economic growth is crucial. 1,449,000 individuals now have work thanks to tourism, and the profits of Most of the developing countries have recognized the role of tourism in driving economic growth. Several empirical studies carried out in different countries have attempted to find out the relationship between tourism and economic growth. Claims of tourism's economic significance give the industry greater respect among the business community, public officials, and the public in general. This often translates into decisions or public policies that are favorable to tourism.

Tourism's economic impacts are important consideration in state, regional and community planning and economic development. Economic impacts are also important factors in marketing and management decisions.

In a more traditional sense, it is argued that tourism brings in foreign exchange which can be used to import capital goods in order to produce goods and services, leading in turn to economic growth (McKinnon, 1964). In other words, it is possible that tourists provide a remarkable part of the necessary financing for the country to import more than to export. If those imports are capital goods or basic inputs for producing goods in any area of the economy, then, it can be said that earnings from tourism are playing a fundamental role in economic development. In this case, non-tourist regions would also benefit from it as a result of the distribution of a country's wealth. (Balaguer & Jorda, 2002). It is generally assumed that tourism expansion should have a positive contribution to economic growth (Kim, et al., 2006).

Falconi (2003) asserted that the use and provision of local commodities with good quality and hygiene in catering tourists is always more desirable. Therefore, the main effects of travel and tourism on GDP is that it improves, the demand for commodities and services. Many developing countries always select tourism for economic enhancement and poverty reduction. As pointed out by Athanasopoulou (2013) the world tourism earns USD 1,075 billion, an increase from USD 1,042 billion in 2011. The EU (27) generates USD 368 billion, and ASEAN USD 92 billion from the foreign visitors' expenses on accommodation, hotel, food, beverage, shopping, local transportation, and entertainment

which provide opportunities for economic development. Tourism ensures more equal distribution of income to promote economic growth of developed and developing countries (Marcouiller, Kim and Deller, 2004). The effect is due to a positive relationship between economic development and poverty reduction through employment, income and participation opportunities (Vanegas & Croes, 2003).

Marcelino et al. (2013) after analyzing 117 countries concluded that the tourism growth of a country does not automatically result in economic development, unless conditions are favorable for encouraging this process. And not all types of interventions in the pursuit of tourism growth are equally effective in promoting a country's economic development. The authors argue that not identifying factors that truly favor this transformation of tourism growth into economic development is a very high opportunity cost for these territories and an unforgivable mistake for policymakers.

The study by Cárdenas-García et al. (2015) examined the impact of tourism expansion on economic growth in 144 countries over the past two decades. The results showed that increased tourist flows lead to tourism expansion and improved socioeconomic conditions in countries with higher development levels. However, in less developed countries, tourism growth has not been a significant tool for economic development, making it less effective in improving local living conditions. This raises questions about the concept of tourism as a driving force for economic development in these countries, as it may not have a real impact on the country's economic development.

Du, Ng and Lew (2016) investigated whether tourism development is an additional determinant of income in the presence of the standard income determinants. The authors empirically developed a tourism-growth model. The results indicate that investments in tourism in and of itself appear to be insufficient for economic growth. Instead, tourism's contribution to the long-term growth of an economy comes through its role as an integral part of a broader development strategy that is more generally focused on standard income determinants.

Chiu and Yeh (2016) applied a threshold regression model and considered three tourism specialization indices as the threshold variables in order to explore the nonlinear relation among tourism growth, economic growth, and other macroeconomic variables for a cross-sectional data set of 84 countries. The empirical results show strong evidence of a nonlinear relation between tourism growth and economic growth, suggesting that it is not continuous and constant. The results do not support the view that one size fits all, and therefore, countries with different conditions of tourism development experience various impacts on the tourism–growth nexus.

The study made by Ohlan (2017) investigates the relationship between tourism and economic growth in India by considering the relative importance of financial development over the period of 1960–2014. The results of the study have shown that the inbound tourism spurs economic growth in India both in long-run and short-run. In addition, the analysis indicates the presence of a long-run one-way Granger-causation running from tourism to economic growth. It is suggested that policies for attracting more international tourists should be promoted.

Terzic' (2018) empirically investigates the contribution of tourism destination competitiveness to the growth in the gross domestic product (GDP) among selected European economies. For this purpose, the author has used the Travel and Tourism Competitiveness Index (TTCI) to estimate the tourism contribution of European economies. More specifically, the study examines the variables that encourage tourism performance as defined by the TTCI rankings and the contribution of tourism to GDP. The results from the correlation analysis show that GDP growth depends on improved travel and tourism surroundings, higher tourism destination competitiveness, the creation of new business opportunities and the need for government support.

2.2 Tourism Leakages

Tourism leakage refers to the loss of tourism-related earnings to other nations, where visitor receipts are spent on non-destination establishments. Foreign and multinational firms often have the resources to invest in tourism infrastructure, such as hotels and resorts, in various countries. UNWTO (2022) reported that this accounts for 80% of all visitor spending in the Caribbean.

According to different research, there may be a 40% tourist leakage in India. (Hynes, 2023). For Felipe (2022) found that in Fiji, and other countries ends up in foreign countries. Jönsson C (2015) emphasized that the main causes of these leakages are profit repatriations, skilled labor imports, and product and service imports. Quantifying these leaks is challenging due to inadequate data and poor record keeping. The concept of links can help reduce leaks. Admin (2021) found in Thailand, 70% of tourist spending money leaves the country through foreign-owned tour operators, airlines, hotels, and imported goods. This issue is not limited to underdeveloped nations, as seen in Japan, where a significant portion of Australian visitors' spending is made through foreign-owned companies.

2.3 Discussion and gaps of literature study

The tourism sector has provided essential revenue and employment opportunities, particularly in Siem Reap, where cultural heritage sites dominate. However, the pandemic's impact was severe, with an 82.6% decline in arrivals in 2020 (Dahles, 2022). Further, Scholars argue for diversification beyond Angkor Wat and ecotourism, highlighting the need for better infrastructure, including transportation and accommodation (Seah, 2024)**.** Additionally, Cambodia's tourism development has been critiqued for relying too much on cultural heritage without expanding into other areas like coastal tourism or ecotourism (Dahles, 2022). According to the discussion, the gaps are as the following:

While there is increasing attention on sustainable tourism, especially in rural and ecologically sensitive areas, the literature on long-term strategies for maintaining this growth sustainably is still evolving. There's a need for more research on balancing tourism growth with environmental conservation (Dahles, 2022). Another gap, a critical gap exists in developing a skilled labor force that can support tourism. Insufficient training in hospitality and service sectors is a barrier to improving tourist experiences (Seah, 2024). Finally, Existing research emphasizes the underdevelopment of transportation and international connectivity, particularly direct flights to major tourism hubs, which limits Cambodia’s tourism potential (Seah, 2024).

Addressing these gaps, such as by diversifying tourism offerings and improving infrastructure, is crucial to sustaining Cambodia's economic growth through tourism.

Through the GDP, the creation of jobs, and the generation of foreign exchange, tourism can promote economic growth. But it might not have long-term advantages, lead to inflation, and wreak havoc on the environment. Thus, a thorough investigation into how tourism affects economic growth is required, particularly in developing nations like Cambodia.

3. METHODOLOGY

This chapter outlines the methodology used in a study, divided into eight sections. It covers the analysis type, data sources, data collection procedure, statistical tools, study coverage, and data analysis procedures. The chapter concludes with a concluding remark.

3.1 Type of Analysis

The study analyzes the role of tourism in economic development in Cambodia, by using quantitative methods. It examines tourism patterns, arrivals, and use patterns, as well as the growth of the tourism sector from 1995 to 2023 and its role in Cambodia's economic development, utilizing quantitative methods.

3.2 Types and Sources of Data

This study uses primary and secondary data to analyze Cambodia's tourism sector growth from 1995 to 2023 and its economic development. Secondary information was gathered from various sources, including the Ministry of Tourism, National Institute of Statistics, and UNWTO

Tourism Highlights. Primary data includes publications from the Ministry of Tourism and the National Institute of Statistics, while secondary data includes existing tourism patterns and arrivals.

3.3 Statistical Tools

Both primary and secondary data collected for the purpose of the study have been processed and tabulated keeping the objectives of the study in the mind. The interrelationship among the data forms the basis for tabulation. The analysis begins by investigating the unit root test of variables using the augmented Dickey Fuller (ADF) (1979, 1981) and Phillips-Perron (PP) (1988) Unit Root Tests are performed both the levels and the first differences of the variables. The results of both ADF & PP for stationarity are presented in Table 2. The tests report that all series variables are integrated of stationary at level I (0) and first different I (1). Thus, ARDL of the regression model should be proposed to carry out as the statistical tools in the present study.

This article uses the Autoregressive Distributed Lag (ARDL) bounds testing technique to investigate how tourism affects Bahrain's economic growth. First of all, the ARDL does not impose the limiting premise that all the variables under consideration must be integrated in the same sequence, which sets it apart from other cointegration approaches and makes it more appropriate for the current research. Bounds testing & Error correction model will be useful for this study since the ARDL test is good for small sample sizes. For further information on the advantages of the ARDL method, refer to Srinvasan et al. (2012). Pesaran, Shin, and Smith's (2001) ARDL method is predicated on the estimate of an

Unrestricted Error Correction Model (UECM) which enjoys several advantages over the conventional type of cointegration techniques.

3.4 Procedures of Data analysis

To assess the growth of tourism sector over the period 1995 to 2023 in terms of inflows of international tourists; tourism income and employment generated in the tourism sector, while economic development has been taken GDP per capita, the following model has been used. The E-view have been used to process the data. To test the null hypotheses of the study, long-run and short-run causality running time-series variables, have been carried out. Thus, the above discussions clearly explain about the methodology adopted in the present study. To conclude, the study has used both primary and secondary data, it has employed quantitative analysis by using ARDL for conducting bounds testing will be appropriate for the present study. Finally, results of the study have been presented through tables and graphs.

4. DATA ANALYSIS

Tourism is a driving force for economic growth and development. Being a major contributor to employment creation, it leads to the reduction of poverty and the promotion of socio-economic development of the nation. Today, the potential of the tourism industry to contribute to economic and social development has been widely recognized around the world. Thus, one of the primary motivations for a region to promote itself as a tourism destination is the expected economic improvement. Considering the case of Cambodia, to know the impact of tourism sector on economic development of the country, tourism income and tourists' inflows and tourism employment are taken as independent variables and per capita

GDP are considered as dependent variables. Hence, the section is divided in four parts. First serial descriptive is performed. Stationary test is caried out in second part. Next, ARDL is checked viz, Bound cointegration and ECM for long-run and Wald check for short-run, Granger Causality Test, and the last, diagnostic and stability check respectively.

Descriptive Statistic

Table 1: Result of Serial descriptive statistic

Tools	CPG	TIF	TEP	TIN
Mean	862.7069	2344088.	851257.7	1.48E+09
Median	742.4000	2015128.	638155.0	1.05E+09
Maximum	1917.000	6610592.	2295900.	4.92E+09
Minimum	267.4000	196495.0	108725.0	1.00E+08
Std. Dev.	535.4987	1992829.	543279.5	1.36E+09
Skewness	0.498690	0.672759	0.825584	0.956618
Kurtosis	1.865635	2.221066	3.008676	3.012972
Jarque-Bera	2.756873	2.920729	3.294434	4.423275
Probability	0.251972	0.232152	0.192585	0.109521
Sum	25018.50	67978560	24686472	4.29E+10
Sum Sq. Dev.	8029247.	1.11E+14	8.26E+12	5.14E+19
Observations	29	29	29	29

Source: Author's own computation

In Table 1, the detailed descriptive analysis is carried out. It exhibits that the average of gross domestic product per capita is 862.7069 with standard deviation 535.4987. The average of Tourism inflows (TIF) is 2344088. with standard deviation is 1992829. The average of Tourism Employment (TEP) is 851257.7 with standard deviation is 543279.5 and

the average of Tourism income is 1.48E+09 with standard deviation is 1.36E+09.

To give insights of the distribution shape, the Skewness and Kurtosis are checked. In the present descriptive result, The Skewness of CPG, TIF, TEP and TIN value (0.498690, 0.672759, 0.825584 and 0.956618) excellent because they stayed between−1 and +1. Further, the Kurtosis of CPG and TIF values 1.865635 and 2.221066, smaller than 3. In the case, the both are normal Skewness and platykurtic., the dataset has lighter tails than a normal distribution. For other both, the Kurtosis of TEMP and TIN are normal distribution because they value 3.008676 and 3.012972, which equal to 3. (Hair et al., 2022). When both skewness and kurtosis are close to zero, the pattern of responses is considered a normal distribution (George & Mallery, 2019).

Another normal distribution check, based on the probability of Jarque-Bera of CPG, TIF, TEP, and TIN (0.251972, 0.232152, 0.192585, 0.109521) are larger than 5 percent. In the case, the null hypothesis: The residual of CPG, TIF, TEP and TIN are normal distribution is accepted. Hence, it is concluded that all residual of dependent variables in the model are normal distribution.

Unit root test

The analysis starts by checking the unit root test of series variables using the augmented Dickey Fuller (ADF) (1979, 1981) and Phillips-Perron (PP) (1988) Unit Root Tests are performed both, the levels and the first differences of the series variables. The results of both ADF and PP tests for stationarity has reported that the both, level I (0) and first difference I (1) have stationary combination. Bases on the result of stationary, The

Autoregressive Distributed Lag (ARDL) bounds testing approach has been carried out in this study to examine the impact of tourism on economic growth in Cambodia.

Table 2. The result of stationary

Variables	Order	ADF (t)	PP (t)	Result
GDP per capita (CPG)	I (0)	-2.031930	-3.680958**	Stationary
Tourist Inflows (TIF)	I (0)	-3.300459*	-2.117514	Nonstationary
Tourist Income (TIN)	I (0)	-2.608624	-2.190949	Nonstationary
Tourism Employment (TEP)	I (0)	-3.805448**	-3.805448**	Stationary
CPG	I (1)	-4.234540**	-4.193671**	Stationary
TIF	I (1)	-4.732487***	-3.684831**	Stationary
TIN	I (1)	-4.903331***	-4.472409***	Stationary

Notes. ADF stands for Augmented Dickey-Fuller, PP for Phillips; denotes the first difference of variable under consideration. The symbol (*) indicates rejection of null hypothesis at 10%, (**) indicates rejection hypothesis at 5% and (***) indicates rejection of null hypothesis at the 1% level. (*Author's own computation*).

Empirical Analysis

In the basic from, an ARDL regression model looks like this:

1. Autoregressive terms

$$Y_t = \beta_0 + \beta_1 Y_{t-1} + \beta_2 Y_{t-2} + \beta_3 Y_{t-3} + \cdots + \beta_p Y_{t-p} + \varepsilon_t$$

2. Distributed lag terms

$$Y_t = \alpha_0 + \alpha_0 X_t + \alpha_1 X_{t-1} + \alpha_2 X_{t-2} + \alpha_3 X_{t-3} + \cdots + \alpha_q X_{t-q} + \varepsilon_t$$

where ε_t is "disturbance" term

Lags p and q can be different

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To run ARDL regression, the current study ensured that all time-series variables in the model should be stationary at either I (0) or I (1) or combination of I (0) and I (1). However, this model should not be used with I (2). If the time-series variables are found cointegrated with the help of bound test, both short run and long run models have to be specified. If the variables are not cointegrated, we can use short run ARDL model. There should be optimal lag in DV and IVs and error term should not be auto correlated.

Table 3. Result of ARDL

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
CPG (-1)	0.822835	0.076266	10.78900	0.0000
TEP	-1.55E-05	3.45E-05	-0.448628	0.6591
TEP (-1)	0.000133	6.20E-05	2.145669	0.0458
TEP (-2)	7.35E-05	3.30E-05	2.229238	0.0388
TIF	-1.09E-05	2.51E-05	-0.433972	0.6695
TIF (-1)	-3.89E-05	8.45E-06	-4.597227	0.0002
TIN	1.06E-07	4.54E-08	2.327922	0.0318
C	-5.426507	10.80598	-0.502176	0.6216

R-squared	0.998234	Mean dependent var	864.3385
Adjusted R-squared	0.997547	S.D. dependent var	502.6431
S.E. of regression	24.89375	Akaike info criterion	9.514770
Sum squared resid	11154.57	Schwarz criterion	9.901877
Log likelihood	-115.6920	Hannan-Quinn criteria	9.626243
F-statistic	1453.494	Durbin-Watson stat	2.338069
Prob(F-statistic)	0.000000	Mean dependent var	864.3385

Source: Author's own computation

**Note: p-values and any subsequent tests do not account for model selection.*

Based on the stationary result, all the series variables are stationary mixed at level I (0) and the first difference I (1). The current study, for GDP itself the lagged period has a positive influence on the current period. per capita (CPG) lag 1 can influence itself. Further, it is shown from the corresponding regression coefficient and its 't' and 'p' value. The regression coefficient of CPG is 0.000133 and 7.35E-05 where the 't' and 'p' value are (lag1=2.145669), (lag2 = 2.229238) and p-value (lag1=0.0458), (lag2= 0.0388). The regression results indicate that the dependent variables, i.e., CPG had been significantly influenced by independent variable, tourism employment (lag 1&2) and the level of significance was less than 5 percent (5%).

Another variable, Tourism income can influence CPG, based on the regression coefficient of free sample is 1.06E-07 where the 't' and 'p' value are 2.327922 and 0.0318. The regression results indicate that the dependent variables, i.e., CPG had been significantly influenced by independent variable, Income rice export at lag 2 and the level of significance was less than 5 percent (5%). Hence, based on the above results, the null hypothesis "Ho: tourism inflows, tourism income and tourism employment have no significant impact on GDP per capita of Cambodia" is rejected. In other word, it is concluded that tourism inflows, tourism income and tourism employment have influenced GDP per capita of Cambodia.

Further, the model summary is interpreted R-squared and Adjusted R. In the result of the model summary R-squared is 0.998234 that means the dependent variable is explained by the independent variables for 99.82%, i.e., only 0.18% (100% - 99.82 %) of the independent variable which is

not mentioned in the model. Thus, 0.18% is called disturbance or error terms. Further, adjusted R-square is 0.997547 which is the value is moved closely R-square value (0.998234), so we can conclude that the independent variables and dependent variable have common arranged the model for 99.75%. The result shown that cointegrating equation when GPC is dependent variable. From here the model can derive the residual of the cointegrating equation when GPC is dependent variable. For ANOVA checks, the value of t-test is 1453.494, p-value is 0.000 less than 1 percent, it means significant at 1%. Thus, the independent variables (tourist inflows, tourism incomes, and tourism employment) have jointly influence on dependent variable (Gross Domestic Product per capita). Further the value of Durbin-Watson statistic is 2.33 which run in the standard range of 1.5 to 2.5 are relatively normal serial autocorrelation (Kenton, 2023).

Bounds Cointegration test

If F-value is less than I (0) the study cannot reject the null hypothesis that there is no long run relationship and cointegration does not exist. So, the Estimate Auto Regressive Distributed Lag (ARDL) Model is carried out. If F-value is higher than I (1) the study rejects the null hypothesis and conclude that long run relationship and cointegration exists. So, the Estimate Error Correction Model (ECM) is performed. If F-value is between I (0) and I (1), the test is considered that it is inconclusive.

Table 4. Result of F-Bounds Test

Null Hypothesis: No level relationship

Test statistic	Value	p-value	I (0)	I (1)
F-statistic	25.92866	10%	2.37	3.2
		5%	2.79	3.67

	2.5%	3.15	4.08
	1%	3.65	4.66

Source: Author's own computation

Here, F-value is 25.92866 greater than I (1) values for all confidential error(p-values). Thus, the present study estimates Error Correction Model (ECM).

Error Correction Model Statistic

Table 5. ECM Regression

Case 2: Restricted Constant and No Trend

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D (TEP)	-1.55E-05	2.27E-05	-0.679872	0.5052
D (TEP (-1))	-7.35E-05	2.43E-05	-3.024405	0.0073
D (TIF)	-1.09E-05	6.16E-06	-1.771539	0.0934
Coint Eq (-1) *	-0.177165	0.013624	-13.00377	0.0000

R-squared	0.859942	Mean dependent var	55.61538
Adjusted R-squared	0.840843	S.D. dependent var	56.44206
S.E. of regression	22.51724	Akaike info criterion	9.207078
Sum squared resid	11154.57	Schwarz criterion	9.400631
Log likelihood	-115.6920	Hannan-Quinn criteria.	9.262814
Durbin-Watson stat	2.338069		

Source: Author's own computation

* p-value incompatible with t-Bounds distribution.

Cointegration Equilibrium (-1) mean error correction coefficient. Long-term causation is present when Cointegration Equilibrium (-1) is

negative (-0.177165) and the p-value is less than 0.05. i.e., speed of adjustment of any equilibrium towards long-run equilibrium state. Additionally, the adjustment speed is 17.71% (0.177165 X 100), which is a rather quick rate.

Wald test for short-run

Null hypothesis	Statistic	Value	Probability	Result
CPG=0 C(1)=0	F-statistic	116.40	0.000	Rejected
	Chi-Square	116.40	0.000	
TEP = TEP (-1) = TEP (-2) =0 C (2) = C (3) =C (4) =0	F-statistic	2.992	0.05	Rejected
	Chi-square	8.977	0.02	
TIF = TIF (-1) =0 C (5) =C (6) =0	F-statistic	11.02	0.007	Rejected
	Chi-square	22.05	0.000	
TIN =0 C(7)=0	F-statistic	2.32	0.031	Rejected
	Chi-square	5.41	0.019	

Source: Author's own computation

Based on the stationary result, all the series variables are stationary mixed at level I (0) and the first difference I (1). The current study, for GDP itself the lagged period has a positive influence on the current period. per capita (CPG) lag 1 can influence itself. Based on Wald test CPG lag 1 can influence itself. Tourism employment has no positive influence at level period, but in the first and second lagged period are significant and can influence GDP per capita. Further, for short-run, Wald test TEP, all the lags can jointly influence GDP per capita. Another variable, tourist inflows have no significant impact on CPG at the level period, Further, it has a negative significant influence CPG at the first lagged period. However, based on Wald test, the tourist inflows have positive significant impact no CPG at all the lagged period, i.e., They can jointly influence CPG. The last one, tourism income has positive significant effect on CPG. In other word, it has jointly influence GDP per capita at both long and short-term of Cambodia.

Table 6. Granger Causality Test

Null Hypothesis	Obs.	F-Statistic	Prob.	Result
Ho1: TEP does not Granger Cause CPG	27	11.6242	0.0004	Rejected
CPG does not Granger Cause TEP	27	9.13242	0.0013	Rejected
Ho2: TIF does not Granger Cause CPG	27	0.76652	0.4766	Accepted
CPG does not Granger Cause TIF	27	1.29759	0.2933	Accepted
Ho3: TIN does not Granger Cause CPG	27	0.79864	0.4631	Accepted
CPG does not Granger Cause TIN	27	1.43863	0.2597	Accepted
H4: TIN does not Granger Cause TEP	27	4.48136	0.0233	Rejected
TEP does not Granger Cause TIN	27	29.0377	7.E-07	Rejected
TIN does not Granger Cause TIF	27	6.43354	0.0066	Rejected
TIF does not Granger Cause TIN	27	6.41781	0.0067	Rejected

Source: Author's own computation

1.The granger causality result of the tourism employment and per capita GDP are shown the corresponding 'f' and 'p' values of the above two granger causality are respectively F = 11.6242, p = 0.0004 and F = 9.1324, p = 0.0013. Hence, based on the above results, the null hypothesis (Ho1): "Tourism employment (TEP) and GDP per capita do not Granger cause CPG and TEP" are rejected at 1 percent. In other words, it can be concluded that Granger Causality runs two-ways from TEP to CPG, and CPG to TEP of Cambodia.

2. Bases on the observation 27 years, result of the granger causality on the tourist inflows and per capita GDP are shown the corresponding 'f' and 'p' values of the above two granger causality are respectively F_1 = 0.76652, p = 0.4766 and F_2 = 1.29759, p = 0.2933. Hence, based on the above results, the null hypothesis (Ho2): "Tourist inflows (TIF) and GDP per capita do not Granger cause CPG and TIF" are accepted. In other words, it can be concluded that Granger Causality does not run two-ways from TIF to CPG, and CPG to TIF of Cambodia.

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3. The granger causality result from the observation 27 years, the tourist income (TIN) and per capita GDP (CPG) are shown the corresponding 'f' and 'p' values of the above two granger causality are respectively F_1 = 0.79864, p = 0.4631 and F_2 = 1.43863, p = 0.2597. Hence, based on the above results, the null hypothesis (Ho3): "Tourist income (TIN) and GDP per capita do not Granger cause CPG and TIN" are accepted. In other words, it can be concluded that Granger Causality does not run two-ways from TIN to CPG, and CPG to TIN of Cambodia.

4. The tourist income (TIN) and tourism employment (TEP) granger causality results are displayed. The corresponding "f" and "p" values of the two granger causalities above are, respectively, F_1 = 4.48136, p = 0.0233, and F_2 = 29.0377, p = 7.E-07. Therefore, the null hypothesis (Ho4): "Tourist income (TIN) and tourism employment (TEP) do not Granger cause CPG and TIN" are rejected at 5 and 1 percent based on the aforementioned data. To put it another way, it may be said that Granger Causality flows from TEP to TIN of Cambodia and vice versa.

5. The corresponding "f" and "p" values of the aforementioned two granger causalities are, respectively, F_1 = 6.43354, p = 0.0066, and F_2 = 6.41781, p = 0.0067. These results are based on 27 years of observation. The granger causality result of the tourist income (TIN) and tourist inflows is displayed. Therefore, the null hypothesis (Ho5): "Tourist

income (TIN) and tourist inflows (TIF) do not Granger cause TIF and TIN" is rejected at a rate of 1% based on the aforementioned facts. To put it another way, it may be said that Granger Causality flows from Cambodia's TIN to TIF and FTR to TIN.

Diagnostics

Before we submit the study findings to the research science, the current study needs to verify that the findings of ARDL didn't violate any model assumptions. The ARDL of regression model has four key assumptions: Normality, Serial correlation (LM), Heteroscedasticity and Stability diagnostic test. The following is as the result of the three diagnostics.

Table 7. Result of Diagnostics

Diagnostics	Statistic value		P-value	Ho
Normality	X^2	1.172951	0.5562	Accepted
Serial co. LM test	F-value	0.110861	0.8958	Accepted
Heteroskedastic	F-value	0.755958	0.6444	Accepted

Source: Author's own computation

Normality Check

Verify Testing to see if the underlying distribution is normal or at least symmetric is frequently helpful because many popular statistical tests depend on the normality of a sample or population. For this study, the Jarque–Bera test statistic of normal distribution was 1.172951 and P-value was 0.5562, larger than 5 percent. Bases on the result, the null hypothesis (Ho): "Residuals are normally distributed" is accepted. Thus, it is concluded that the residuals are normally distributed.

Serial Correlation Test

When a variable and a lagged version of itself (a variable at times t and at t-1) are seen to be associated with one another across time, this is known as serial correlation in a time series. When one variable's level influences another's level in the future, repeating patterns frequently exhibit serial correlation (Williams). In the current result, F-value was 0.110861 and p-value was 0.8958, larger than 5 percent. In the case, the null hypothesis (Ho): "The residuals are serial correlation" is accepted. In other words, it can be concluded that the residuals are serial correlation.

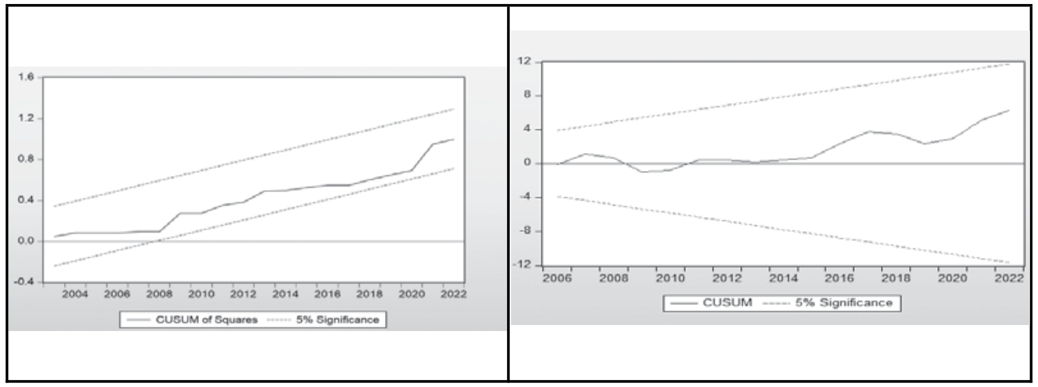
Heteroscedasticity

To check whether the data are homoscedastic (meaning the residuals are equal across the regression line) or not. The present result of F-value was 0.755958 and P-value was 0.6444, larger than 0.05. In the case, the null hypothesis (Ho): "The residuals are homoscedasticity" is accepted. In other words, it can be concluded that the residuals are homoscedasticity.

Stability Test

The current study performed CUSUM tests of the structural breakdowns to check the long run equations to evaluate the fitness of the ARDL model. Pesaran and Pesaran (1997) suggest using Brown et al. (1975) stability test which was known as cumulative sum of squares test (CUSUMSQ). The current result in the figure 1 below shows that there were no structural breakdowns as the figure indicated. The parameters are steady, while the CUSUM of residual test stays in between two critical lines. Ultimately, the model ARDL was more stable since the blue line falls between the two red lines.

Figure 1. Result of stability



Source: Author Own Computation

5. CONCLUSION

The ARDL regression analysis reveals that the dependent variable is explained by the independent variables for 99.82%, with 0.18% of the independent variables being disturbance or error terms. The adjusted R-square value is 0.997547, indicating a 99.75% common arrangement. ANOVA checks show that tourist inflows, incomes, and employment jointly influence Gross Domestic Product per capita, with a Durbin-Watson statistic of 2.33. The study has rejected the null hypothesis that the tourism inflows, tourism income and tourism employment have influenced on GDP per capita of Cambodia. Based on the result of bound test, there is a long-run relationship and cointegration. The Estimate Error Correction Model (ECM) was performed, and the results showed a Cointegration Equilibrium (-1) mean error correction coefficient, indicating long-term causation. The Granger Causality results showed that Granger causality runs two-ways from Tourism Employment (TEP) to CPG, Tourist Income (TIN) to TEP, and TIF to TIN of Cambodia.

Policy implication and Suggestions

Given its favorable effect on GDP per capita, tourism appears to be a major factor in Cambodia's economic expansion. Over time, higher visitor numbers and spending can raise the country's GDP and level of living. This highlights the contribution of tourism to sustainable development and validates the tourism-led growth concept. However, The Wald test results, which indicate short-run effects on particular variables, suggest that although tourism has immediate economic benefits, these are not evenly spread across all industries. While developing robust long-term strategies, policymakers should concentrate on managing cyclical short-term changes, such as seasonality in tourism demand. The results emphasize how important it is to vary the tourism options. To ensure long-term viability, eco-tourism and coastline tourism must be added to Cambodia's current emphasis on cultural and historical tourism such as that provided by Angkor Wat. Based on the above policy implications, some suggestions are as the following:

- **Infrastructure Improvement**: Investments in technology, transportation, and hospitality infrastructure are essential to maintaining the long-term advantages of tourism. In the medium term, this will improve service delivery while assisting in accommodating higher tourist traffic.
- **Ecotourism and Cultural Preservation Enhancement**: Expanding into ecotourism and programs that support cultural preservation help diversify revenue streams and protect the environment, especially in light of Cambodia's abundant natural and cultural resources.

- **Training and Workforce Development**: Developing the abilities and skills of the tourist workforce can increase short-term economic gains. Enhancing service quality through education and training investments in the hospitality industry would guarantee increased visitor satisfaction and repeat business.
- **Crisis Preparedness Mitigations:** The Wald test's short-term impacts might also point to a system's susceptibility to outside shocks like pandemics or recessions. Such risks can be reduced by implementing measures to strengthen sector resilience and crisis readiness, such as promoting domestic travel.

Limitation and Future research

To examine the role of tourism sector in economic development, dependent variables such as total revenue, tax revenue or GDP have been taken into account. The study could have provided better results, if it had the dependent variables would have been more otherwise, the study should use combine, quantitative and qualitative methods. Thus, the limitations of the present study have provided the insights for further research in the field.

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ACCUMULATING FINANCE ON EDUCATION, CAPITAL FOR ECONOMIC GROWTH: CASE STUDY IN CAMBODIA

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ABSTRACT

This research paper studies the effects of GDP dependent variable value related with the independent variables value from the accumulating finance on education, capital for economic growth in Cambodian case. I collect the variables annual data period from 2018-2028, means to express the relationship legitimacy of between GDP value and value of household debts, labor income tax, value added tax, government education spending, general government spending, and dummy variable for the regression model constructions to analysis under the conditions of P-value > α (α=0.05), the null hypothesis is true and the alternative hypothesis is false the conditions of P-value < α (α=0.05). As seen the results of these variables value are the statistical significance of accumulating finance education, finance capital for economic growth with R-squared value at 99.96%, adjusted R-squared value at 99.91%, dummy statistical-t value at 2.62 than the critical-t, and the positive skewness with the variable's distribution has a longer right tail. The study suggests the government authorities need to increase budget and to promote economic policy.

Keywords: *accumulating finance, economic growth, regression model, independent, dependent variables*

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1. INTRODUCTION

The purpose of this research paper to describe the effects of independent variables from the accumulating finance on education, capital for the growth in the context of Cambodia, as to research and analysis of the independent factors with the data sources of the period of year 2018-2028, with of the GDP, household debts, labor income tax, consumption tax or called value added-tax, government general spending, government education spending and the estimated dummy value of social behavior is equal value at (0,1) in the establishment of regression formulation to analysis. The effects of accumulation on finance education, finance capital to Cambodia's economic growth. As the spending finance on education like to accrue education professional, called a human capital development. Jorgenson & Fraumeni (1992) they found that benefits of an educated individual over a lifetime of activities, of the investment in human and nonhuman capital accounts for an overwhelming proportion of the growth of the U.S. economy during the postwar period. Educational investment will continue to predominate in the investment requirements for more rapid growth. To accumulate finance education and finance capital with good positions as to have accelerated relationships with macroeconomics performance in the nations. Carlos Bethencourt, Fernando Perera-Tallo (2020) they understood that the weak empirical relationship between human capital and macroeconomic performance as seen in human capital is allocation to three activities production, tax collection, and public education. Throughout the transaction, the effective tax rate rises, which involves a diversion of human capital from production to bureaucracy and public education. Consequently, human capital has a weak effect on production, even when human capital is efficiently allocated. Differences

in institutional quality may involve a spurious negative correlation between gross domestic product and human capital. More education and skill as seen a factor of accelerating economic growth as particularly in productivity and are sure to reflect the labor income increases, because of the impact of human capital on economic growth. Rob A. Wilson, Geoff Briscoe (2004) they thought that increased investment in education is shown to lead to higher productivity and earnings for the individual and similarly, such investment results in significant social rate of return. The indirect impact of education on non-economic benefits is also examined in the context of the technological, spatial and environmental gains to society. It is concluded that, overall, the investment spill on accumulating finance on education, capital of the national economic growth positively and significantly. The case of Cambodia, I research and analysis the effects of variables are influenced to accumulating finance on education and capital for economic growth, its impacts of GDP per capita, household debts, labor income tax, consumption tax, and government general spending, government education spending have expanded on the educated people and advanced capital or new technology for the sustainable of the national growth and the social growth. In this research I examine the change in the amount of independent variables' effects to economic growth in the case of Cambodia. I included the research questions is the same of hypothesis established. What is accumulation of finance education contribution to the growth? What does hesitant or reluctant to accumulate finance on education, capital for the growth? What is accumulation of finance capital contribution to the growth? How does dummy social behavior more significantly relationship with the growth? How impacts of financing education, financing capital on the growth? The assumed hypotheses under terms of the level significance of the value of α = 0.05, called a null hypothesis says the effects of all independent variable value have been contributing into economic growth, come from accumulation finance education, finance capital is true in terms of the P-value > α, and the alternative hypothesis is false in terms of the P-value < α. These independent variables are highly relationships with economic growth, positively, the independent variables' impacts are highly relationship with Ricardian model, Paul Samuelson model, Gravity model. As a result of research, found that both positive and normative policy statement by the effects of accumulating finance on education, capital for the growth. As thought result of the accumulating finance on education, capital in the short run as its returns as household income increase or household debts increase, labor income tax increase, consumption tax increase, government revenue increase. But in the long run its returns will be dropped because the return of diminishing law says the independent variables significantly play functions. The importance of the research objectives has been assigned private and public sector's managers, policymakers they regularly concern about the accumulating finance on education, capital for economic growth.

2. LITERATURE REVIEW

A Research Team (1993) thought that the essence of the miracle, rapid growth with equity that the HPAEs (high-performing Asian economies), high rates of investment, exceeding of 20% of GDP on average between 1960 and 1990, including unusually high rates of private investment, combined with high and rising endowments of human capital due to universal primary and secondary education, tell a large part of the growth

story. These factors account for roughly two-thirds of the growth in the HPAEs. The remainder is attributable to improved productivity. Such a high level of productivity growth in the HPAEs exceeds that of most other developing and industrial economies. This superior productivity performance comes from the combination of unusual success at allocating capital to high-yielding investments and at catching up technology to the industrial economies. For examples, explicit mechanisms were used to demonstrate the intent that all would have a share of future wealth, as saw Korea and Taiwan, China carried out comprehensive land reform programs; Indonesia used rice and fertilizer price policies to raise rural incomes; Malaysia introduced explicit wealth-sharing programs to improve the lot of ethnic Malays relative to benefit-off ethnic Chinese; Hong Kong and Singapore undertook massive public housing programs; and in several economies, governments assisted workers' cooperatives and established programs to encourage small and medium-size enterprises. Whatever for, these programs demonstrated that the government intended for all to share the benefit of growth. Hansson. Bo, Johanson. Ulf, Leitner Karl. Heinz (2004) there is a growing body of literature suggesting that firms are financing both types of training. The effects of education and skills/competence on aspects such as productivity and innovations are generally found to be positive and significant, though the connection with profitability might be less expected. Firms can also extract profit from prior education as they do from general training investments. Innovation and information technology (IT) both result in result in greater investment in training and depend on education and skills in generating profits. Other findings suggest that training and comprehensive HRM practices are closely related to firms' innovative capacity. The lack of studies connecting small and medium enterprises (SMEs), labor market systems, and social partners with training policies and performance measures such productivity or profitability, makes it difficult to draw conclusions on these aspects. The organizations suggest the accumulating finance on education and capital are more thoroughly in the objective functions for the growth in the future. Aaron Bernstein & Larry Beeferman (2015) the materiality of human capital to corporate financial performance have thought that human capital management, cost-benefit analysis, cause and effect as the key component of corporate strategy. Hundreds of academic and practioner studies undertaken in dozens of countries have examined the operational and financial benefits of human resource policies. Public opinion has been found that companies may be reluctant to assign values to intangibles that would be inconsistent with GAAP. They cite evidence pointing to less transparent disclosure at firms with overpaid managers and with more non-paid mangers and with more non-independent board directors. They also contend that uncertainty about the payoff from training budgets may prompt companies to avoid disclosures that may lead to lawsuits or reputations loss. This may be somewhat circular: if investors do not see how the effects of human capital policies are reflected in stock prices, they have little reason to ask for data about such policies. Other contributing factors may include investors' lack of awareness of the materiality evidence or companies' unwillingness to invest too heavily in policies that the market seems not to value. Rainer, David (2023) he said that a demographic drag will be the new norm in the upcoming decades; however, future economic growth depends not only on how cohort structures change but also on how labor potential changes with improvements in functional capacity as longevity rises. While contracting

working-age shares will slow economic growth, changes in labor supply through improvements in functional capacity can cushion much of this slowdown. Hence, the consequences of population aging for economic growth will likely be less severe than demographic predictions of cohort structure suggest. The point of view, in terms of debts to financing education, capital for the growth, as this effect, it will benefit for their economic well-being, but it may make some problems to their living. Menaka V. (2022) he said students who are required to take on more student loans to finance their education choose majors with higher initial earnings but lower lifetime earnings. Furthermore, student debt affects students differentially depending on their family backgrounds: Students from low-income families display greater sensitivity to changes in student debt. Finally, I show that differences in student debt amounts lead to different job profiles and earnings later in life. Combined, these findings highlight the role of financial frictions in human capital investments and subsequent labor market trajectories. Caue, Nano, Sebastian (2022) in the case of Brazil's current loan program, they calculated that an alternative policy that gives loans only to low-income students raises enrollment by 16% relative to a counterfactual without loans. Most of the difference in enrollment between the two policies is due to price reductions coming from a stronger composition effect in the alternative policy. To improve better quality of education and capital for the growth, the government should use the expenditure program by using increasing budget spending the educations, capital, this effects of family's assistant for the lower household income. Manasi (2023) he had pointed out that in a simple economic model, the anticipation of benefits in adulthood decreases human capital investment through income and substitution effects.

Through the income effects, expected government transfers reduce the child's expected marginal utility of earned income in the future, lowering the expected utility return to investment in human capital. However, in the impacts of Supplemental Security Income (SSI) program, expectations of future benefit receipt from the social safety net have limited, if any, impacts on educational investments in childhood. We thus provide some of the first evidence on the dynamic discouragement, or lack thereof, of the social safety net on human capital investment. Geert, Robert (2012) they studied that governments are important players in international financial management because they set the regulatory environment in which multinational operate, the risk that government decisions may adversely affect the multinational corporations' cash flows. Governments (central banks in particular) also affect important asset prices, such as interest rates, which constitute the main component of a firm's cost of debt, as meant the central banks influence the value of exchange rates, another critical asset price. As long as, he shown that Ricardian equivalence, such as another serious problem in understanding how government budget deficits affect the economic behavior of the overall economy is the important idea of Ricardian equivalence between government debt and taxes, as the in Ricardian equivalence; (private saving – investment) + (taxes – transfers – interest on government debt- government expenditures) = current account. Alternatively, it may be that current taxpayers feel wealthier when governments run budget deficits because some future generation is going to have to pay the increased taxes. Geert and Robert thought that the effect is named after the economist David Ricardo (1772-1823) who first analyzed arguments for the equivalence of government debt and taxes in his Principles of Political Economy and Taxation (1817).

Although the effect bears his name. Ricardo did not believe that the result would hold in actual economies. Particularly, he argued that high public debt could create an incentive for both labor and capital to migrate abroad to avoid future taxes necessary to service the public debt. Ricard David (1817) as in chapter 21, effects of accumulation on profits and interests, as shown that employ it himself productively, or lend it to some other person for that purpose; in either case, demand would be increased, although it would be for different objects. If he increased in his expenses, his effectual demand might probably be for buildings, furniture, or some such enjoyment. Paul Krugman, Maurice, and Marc. J. (2015), as in chapter 3 labor productivity and comparative advantage, they have emphasized that the Ricardian model, the simplest model that shows how differences between countries giver rise to trade and gains from trade, in this model, labor is the factor of production, and countries differ only in the productivity of labor in different industries, as in the Ricardian model, countries will export goods that their labor produces relatively efficiently and will import goods that their labor produces relatively inefficiently, as likes a country's production pattern.

3. METHODOLOGY

Bruce Chapman & Glenn Wishers (2001) as individuals see continuing benefits to educational investment, a view supported by individual rates of return from education. Private sector expenditure on education has increased substantially, Australia's public and private funding mix conforming to the OECD average. An expansion of migration is possible without unacceptable reduction in skill composition and may enhance Australian human resources development. Erice A. and Ludger (2007) they found that new empirical results show the importance of both minimal and high-level skills, complementarity of skills and the quality of economic institutions, and the robustness of the relationship between skills and growth. As well as the reflections of accumulating finance on education, capital for the growth. As seen in the case of Cambodia, Achim (2021)'s global knowledge index report, Cambodia faced the value of 100 of challenges pre university education valued by 42.7, technical and vocational education and training valued by 43.20, higher education valued by 32.50, research, development, and innovation valued by 23.70, information and communications valued by 39.70, economy valued by 52.50, and enabling environment valued by 48.80. Eric A. and Ludger (2020) they pointed out education has long been viewed as an important determinant of economic well-being. As the accumulated evidence from analyses of economic outcomes is the quality of education measured on an outcome basis of cognitive skills has powerful economic effects, as a result, the economic growth is strongly affected by the knowledge capital of works. Mankiw, Romer, Weil (1992) as said that the theoretical growth literatures emphasize at least three mechanisms through which education may affect economic growth. The education can increase the human capital inherent in the labor force, which increases labor productivity and thus transitional growth toward a higher equilibrium level of output neoclassical growth theories. Lucas (1988), Roomer (1990), Aghion & Howitt (1998) they show that education can increase the innovative capacity of the economy, and the development of new technologies, products and processes promotes growth as in theories of endogenous growth. Nelson & Phelps (1966), Benhabib & Spiegel (1994) they thought that education can facilities the diffusion and transmission of knowledge

needed to understand and process new information and to implement successfully new technologies devised by others, which again promotes economic growth. As some points of the methodology of financing flows of education, capital aiming to improving the economic growth of the countries. Suzanne, Sylvia (2016) they said that the classification of financing units, for examples, Nepal's financing units included ministry of education, other ministries, district and village development committees, households, local NGOs, international NGOs, loans, on-budget grants, off-budget grants, Morocco's source of funds included public sources such as government, local authorities, private sources such as local NGOs, households, private sectors, other, external sources such as international NGOs, development partners. Morocco's financial agents included ministry of education, other ministries, national agencies, regional and provincial offices, local authorities, education institutions, management committees, private sectors such as private investors, foundations, local NGOs, parents' associations, households, rest of the world development partners, international NGOs, others, analyses of a national account of Suzanne, Sylvia (2016) that it is possible to assess: the overall level of domestic education expenditure, which may be presented in relation to the main socio-economic indicators, such as the GDP, government budget, and population numbers; the structure of financing indicating the expenditure of financing units on education, who finances education?); the cost of the various levels of education and the structure of their financing, how much does primary education, for example, cost, and who finances it?); expenditure by activity, teaching activities, ancillary services, administration, and connected products; the cost of the various categories of school (public or private) and the structure of their financing (how much does public higher education, for example, cost, and who finances it?); the production costs for the various categories of school, by making a distinction between compensation of employees, goods and services, and capital expenditure (what are funds being spent on in private primary schools, for example? average financing and cost per student (how much was spent per student in public secondary schools, in terms of teaching personnel, for example?)

Social behavior

The social behavior dummy has a relationship with the economic growth in the Cambodia by the government social protection policy included social security and social assistance tools. The economic point of view, the progressive development of these two factors, education and capital of social behavior and of their ever-increasing significance in the economic growth system. Tyas, Rahmawati, Bani (2023) that education facilities have a significant positive effect on economic development in Indonesia. As known that economic development can be implemented by increasing nutrition intake to improve health quality, reduce mortality, and increase life expectancy. Markus, Jay (2012) found that limited systematic empirical evidence in favor of corporate social responsibility (CSR) mechanism related to induce innovation, moral hazard, shareholder preferences, or labor markets, as well as uncover consistent empirical evidence in favor of CSR mechanisms related to consumer markets, private politics, and public policy. Markus, Jay's view that taken by many economists allows us to establish the taxonomy of CSR outlined in the 2 × 2 matrix of Table 2. The crucial question then asks why firms voluntarily incur the costs attached to CSR.

Table 1: Taxonomy by Markus & Jay (2012)

SHAREHOLDERS			
		Social (S) preferences	Classical (C) preferences
SHAREHOLDERS	S	Not for profit CSR Mixed effects on profits	Strategic CSR Profit maximization
	C	Not for profit CSR Reduction of profits	No CSR Profit maximization

However, social behavior will change in economic well-being by using the accumulating finance on education, capital for a better social growth and economic development in the nation. As seen in Suzanne, Sylvia's thought, equity in public resources allocation, aspects: equity in teacher allocation, by comparing the number of teachers with the number of students in the various institutions; equity in the allocation of textbooks, by comparing (i) the number of textbooks with the number of students in public institutions and (ii) the number teacher guides with the number of teachers, Benefit incidence analysis Benefit incidence analysis (BIA) is an analytical approach that estimates the distribution or appropriation of public resources across different beneficiary groups, such as boys versus girls, rural versus urban, rich versus poor, and basic education pupils versus higher education students. For instance, students in public higher education institutions consume much higher public expenditure than those in public primary and secondary schools, which may raise some equity issues related to the public financing of education. Indicators generally used for BIA for equity issues in public resources include the Gini index of public expenditure distribution and the share accumulated by the 10 per cent most-educated students. Efficiency of expenditure on education.

Efficiency analysis focuses conceptually on the process of transforming resources into results. In this regard, efficient educational institutions are those that produce maximum results for a given level of resources or produce a given level of results using a minimum of resources. In this context, efficiency inevitably entails a comparative dimension in the sense that levels of performance are understood in comparison to other educational systems with comparable resources. In this framework, the results produced by an education system, given the resources mobilized, can be approached from two complementary angles: The first is a global comparative analysis that compares national performance with those of other countries. Thus, one system is more efficient than another if it performs better for a comparable level of expenditure or if it gets at least the same results for a lower level of spending. The second is a within-country approach that compares the performance of different schools regarding resources allocated to them. It examines (i) whether schools that have more resources per student generate, all things being equal, better results, and (ii) whether schools benefiting from comparable resources also produce comparable results. Jon (2005) he pointed out that it is important to insist upon the moral coherence of academic practice precisely because of the increasing stratification of the higher education sector whereby deep divisions of labor are being systematically engineered and then justified on the spurious grounds of consumer choice. Within this context the notion of widening participation becomes meaningless, since what students will be participating in at different points within the system will not just be different but will differ qualitatively. The reclamation of the moral bases of academic practice, by us academic practitioners, is essential if universities are to contribute to the building of a good society. As said

insists be done by individuals by people like us who through our academic practice, are continuing to learn how to be accurate and sincere, attentive and honest, courageous and compassionate. Dana (2011) he said that resources invested in improving the quality of public education should be viewed as more than current expenditures for schools and the students attending them. Such expenditures are long-term investments in strong families, a strong labor force, and strong communities. He emphasized education severs a vitally important role in granting access to the information and skills needed by individuals to participate in higher education, to sustain productive employment, and to make effective choices about crime, health care, and civic participation. Dana saw that Government support for public education is thus crucial for individual employment, the broad creation of human capital, and overall economic growth. Policies that boost government investment in education can help reduce income inequality while expanding economic opportunity. States that invest more in public education eventually reduce levels of income inequality between residents. Reduced government expenditures for welfare programs are a powerful example of the significant employment and economic benefits of quality education. The savings in government expenditures are even greater when other low-income assistance programs are considered. Society also benefits from improved education outcomes when individuals are employed with higher earnings and the government collects greater tax revenue. Improving education outcomes could result in national savings in public assistance, food stamps, and housing assistance, and crime, at to the public bears a huge financial burden. Joseph E. (2001, 2002) he said that just the accumulation of capital and the enhanced efficiency of resource allocation, it is transformation of society, equitable, sustainable and democratic development required development required basic labour rights, including freedom of association and collective bargaining. As he means the development that promotes societal well-being and conforms to basic principles of social justice. Niel and Cyrus (2011) he said that markets are dependent on governments, laws, and cultural understandings that support market activity. There are four bodies of work that provide different views on the mechanisms by which markets are organized: networks, institutions, political economy, and the study of market devices and the performativity of economic ideas. The sociology of consumption situates consumption in the problem of what consuming things means to people. One core idea is that consumption is about how people constitute their lifestyles, lifestyles can be constructed in emulation of other groups or instead by competition between social groups for status. If, to produce economy in the country as meaning to build government budget allocation to major growth sector. For example, as evidence in budget allocations of Asean economies in 2024* such as Malaysian ministry of education gets budget allocation of 2024 of RM58.7 billion as equivalent of US$12,401,155,187.68 under budget 2024, up from RM55.2 billion in 2023. For Cambodia's budget allocation in 2024 for Ministry of Education gets KHR4,051,781 million as equivalent of US$ 979,400,773.

GDP

Fabio, Mintra, and Steven (2021) they expressed that economic theories posit conflicting hypotheses on how wealth inequality affects entrepreneurial dynamism, the impact of wealth inequality on business dynamics by constructing local measures of household wealth inequality based on financial rents, home equity. Wealth inequality decreases firm

entry and exit, and the proportion of high-tech businesses across metropolitan statistical areas, and wealth inequality also lowers supply of public goods, such as education. Growth in income per capital consequently lags. They noted the effect of wealth inequality on entrepreneurship by instrumenting it with land distribution under the 1862 Homestead Act. The statistical data of budget law of Cambodia, its's importance of the contribution into economic growth sectors such as education, capital by the reflections of economic development by identifications of particularly in GDP per capita improvement of year and year's scenarios.

Household debt

Households' wealth inequality is a defining societal characteristic with important implications for financial and real activity. When government expenditures go to social spending that will be reach the households revenue upped as credit positions or debts. Valentino (2023) he said that reached in the social spending as considered as in basic assistance to the poor, unemployment compensations, public noncontributory pensions, public health expenditures, housing subsidies, and public expenditures on education. If the social transfer formulation is social spending minus government expenditures on education.

Labor income tax

Joseph F. and Clinton R. (1993), they found that the dynamic effects of trade liberalization have important relationship with economic growth. They mentioned that dynamic models explicitly show how market forces can, theoretically, give rise to technological innovation, and hence to economic growth. Recent economic studies of the interaction between trade and growth have shown that trade liberalization may have important effects over time that, in theory, could lead to changes in the long run rate of economic growth. The effects of such changes would be compounded over time, much like simple interest, and thereby could have much more substantial effects on national income than the effects associated with static gains from trade. Dynamic models emphasize changes over time and reflect the dynamic features of an economy, such as the interplay among savings rates, investment, innovation, and income. The point of view, labor income tax effects of the accumulating finance on education as to meaning to developing the human capital to produce more productivity, it will benefit to growth of income tax by the labor income increase. Solow (1956) his thought that crucial assumption is one on which the conclusions do depend sensitively, and it is important that crucial assumptions be reasonably realistic. When the results of a theory seem to flow specifically from a special crucial assumption, then if the assumption is dubious, the results are suspect. Solow, he argued that something like this is true of the Harrod-Domar model of economic growth. The characteristic and powerful conclusion of the Harrod-Domar model [1] line of thought is that even for the long run the economic system is at best balanced on a knife-edge of equilibrium growth. Harrod's terms the critical question of balance boils down to a comparison between the natural rate of growth which depends, in the absence of technological change, on the increase of the labor force, and the warranted rate of growth which depends on the saving and investing habits of households and firms.

The Solow's growth models of long run growth. Such as output as a whole, whose rate of production is designed $Y(t)$. The fraction of output saved a constant s, so that the rate of saving is $sY(t)$. Net investment is then just the

rate of increase of this capital stock dK/dt or K^*, the basic identify at every instant of time. Its economic growth model identified as (1) $K^* = sY(t)$, (2) $Y(t)=F(K, L)$, (3) $K^* = sF(K, L)$, (4) $L(t) = L_0 e^{nt}$, (5) $K^* = sF(K, L_0 e^{nt})$. As to say that a result of exogenous population growth the labor force increases at a constant relative rate n, the absence of technological change n is Harrod's natural rate of growth two factors of production as capital (K), and labor, $L(t)$.

Value added tax

Reuters (2023) [2] the Vietnamese government said on Tuesday it plans to extend a reduction in value added tax (VAT) until the end of June next year to boost domestic consumption and production as the global economy remains sluggish. The VAT cut to 8% from 10%, the tax cut, which is expected to boost domestic consumption, would reduce the government's budget revenue by 25 trillion dong ($1.02 billion), as seen that the Vietnam's economic growth rose 5.33% in the quarter, the higher than 4.05% in the previous one. While economic growth picked up in the July-September period thanks to a gradual recovery in exports, domestic consumption remained subdued and credit growth continued to be slow reflecting weak private domestic investment and investor confidence, the World Bank said in its latest report. Retail sales in the domestic market with a population of nearly 100 million, rose 9.7% in the first-time months of this year from a year earlier, according to the General Statistics Office of Vietnam.

Government education spending

Public opinion, the size of government spending on education and capital so absolutely importance of growth of the nation. To the present, capital has changed its form from being a landed property capital to capital with an industrial and financial nature. Piketty, T. (2014) capital is defined as "the sum total of non-human assets that can be owned and exchanged on some market, it includes all forms of real property including residential real estate as well as financial and professional capital (plants, infrastructure, machinery, patents, and so on. With this definition, capital is defined in its two main components, the real and the financial one, unified in a single variable. Filippo (2020) expresses Piketty's model, he thought that the financial component plays a key role, especially in the determination of the functional distribution of income. A financial model of economic inequality would seem an appropriate place to start. MUUJ (2022) shows the three simulation outcomes suggest such as in simulation 1, the overall GDP growth rate is expected to decelerate to 4.1 percent 2022 by indicating that the commodity price shock may cause an economic loss of approximately 1.3 percent points of GDP in 2022, in simulation 2, the GDP growth rate may decline further to 3.9 percent in 2022, due to the commodity price increase shock and demand shock, and in simulation 3, the government socioeconomic interventions, the GDP growth rate to 4.9 percent in 2022. If the effect of government socioeconomic interventions on broad sector growth is also evident. For examples, the government simulation packages about $1,887 million of 2022 and 2023, goes through public health and social intervention including as heal sector $200 million (2022, 2023), education sector $119 million (2022, 2023), by providing cash for work, cash transfer to landless household (30%), small farm household (30%), low-educated household (40%) about $1,038 million 0f 2022; 2023, economic intervention such as implementations of economic recovery strategy by increasing government expenditure by $250 million

of 2022, and $280 million of 2023. The government spending budget to education, it will benefit to improve the human capital as well as skills updated, its effects of financing on education, capital to the economic growth significantly. Boaz, Maurice, Lewis (2014) they found that the government should continue to support secondary education through timely remittance of funds and employment of teachers to realize increased human capital investment, parents being key to education funding should be encourage to support education programs since they stand to benefit directly when students perform better, voluntary organizations should step up the support to contribute significantly to the overall human capital investment in the county to benefit poor household and school management teams should mobilize and manage education funds efficiently for better human capital investment outcomes. Aaron O'Neill (2023), he points out the ratio of Cambodia's government spending to gross domestic product (GDP) was forecast to decrease between 2023 and 2028 by in total 0.4 percentage points. This overall decrease does not happen continuously, notably not in 2025. According to this forecast as in 2028, the ratio will have decreased for the third consecutive year to 26.67 percent. Shown here are the general government expenditures as a share of the national gross domestic product. As defined by the International Monetary Fund, the general government expenditure consists of total expense and the net acquisition of nonfinancial assets. The gross domestic product represents the total value of final goods and services produced during a year. Cambodian spending on education has fluctuated [3] in year to year, estimated as general government expenditure on education (current, capital, and transfers) is expressed as a percentage of total general government expenditure on all sectors (including health, education, social services, etc.). It includes expenditure funded by transfers from international sources to government. General government usually refers to local, regional and central governments. Cambodia education spending for 2021 was 15.74%, a 1.43% decline from 2020. Cambodia education spending for 2020 was 17.17%, a 1.77% decline from 2019. Cambodia education spending for 2019 was 18.94%, a 2.07% increase from 2018. Cambodia education spending for 2018 was 16.86%, a 0.92% increase from 2017.

General government spending

General government spending is so important approach to boost economic growth in Cambodian characteristics. Aron O'Neill (2023) he said the ratio of government expenditure to gross domestic product (GDP) in Cambodia was forecast to decrease between 2023 and 2028 by in total 0.4 percentage points. This overall decrease does not happen continuously, notably not in 2025. As seen in the forecast in 2028, the ratio will have decreased for the third consecutive year to 26.67 percent. Shown in the general government expenditure as a share of the national gross domestic product. As defined by the international monetary fund, the general government expenditure consists of total expense and the net acquisition of nonfinancial assets. The gross domestic product represents the total value of final goods and services produced during a year.

Data collection

The annual data of independent variables collection from the year 2018-2028 was issued by Ministry of economy and finance (MEF), as shown in below. The study will be influenced by changes in the gross domestic products. The social behavior and economic development in the path of

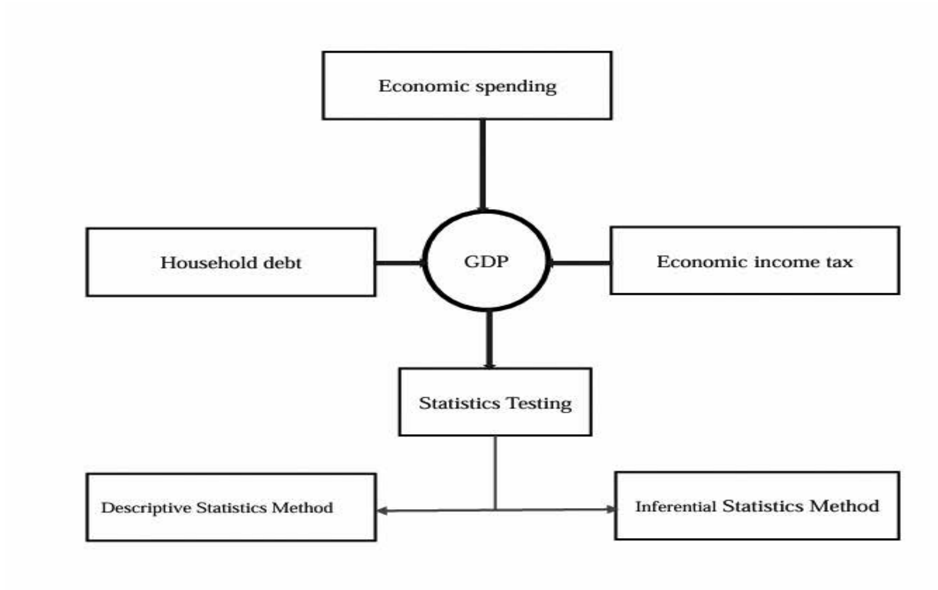
the constantly sustainable position in accumulating finance on education and capital, as a diverse of sustainable productivity growth and social behaviors' returns. if, to write the regression model for analysis of effects of those independent variables be collected, that will be influenced into the economic growth. The previous studies of Withers, G. (2000) he argued that an increase in total outlays on education, training and R&D from 8 percent to 11 percent of GDP is required if a sustainable growth target of 3 percent growth is to be achieved. Bruce Chapman & Glenn Wishers (2001) as individuals see continuing benefits to educational investment, a view supported by individual rates of return from education. As to measure social returns and welfare economics by accumulating finance on education and capital as regarding the size of government financing expenditures. The studies of Yazid, Selma & Tatsiana (2012) they thought that the positive externalities associated with human capital accumulation and the difference between social and private returns to education often provide the rational for government intervention. As in their assessment the growth and welfare implications of alternative methods of financing public spending on both human education and physical capital as like the implications of increasing government spending on education in a small-open economy. And they thought of several fiscal instruments to finance the increase in the government spending government transfers to households, output tax, capital tax, and labor tax. This case, they found a significant difference in the quantitative growth impacts or spillovers of the different financing methods, the non-distortionary financing method (government transfers) provides the highest output increase through its strong effect on physical capital or capital and human capital stocks. The other non-financing methods have lower impacts on the long run economic growth, with labor tax being the most performing, output tax and capital tax. Simulation in results that even if the different methods of financing have a positive effect in the long run economic growth rate, their transactional impacts do differ. Evidence, financing increase in public expenditure through higher labor tax rates crowds-in private investment in the short run and has only a transitory crowding-out effect on consumption in the short and medium runs. The use of capital tax results in a crowding out of private capital in a proportion that is not sufficient to reduce the long run growth rate of the economy.

Table 2: Variable description and data source

Variables	Descriptions	Measurement Units	Source
GDP	Gross domestic products	Billions of U.S dollars	MEF
HOD	Household debts	Billions of U.S. dollars	MEF
LIT	Labor income tax	Billions of U.S. dollars	MEF
VAT	Value added tax	Billions of U.S. dollars	MEF
GES	Government education spending	Billions of U.S. dollars	MEF
GGS	General government spending	Billions of U.S. dollars	MEF
Dummy	Dummy for government social protection policy (2018) such as social security, social assistance for a good society.	D=1 after 2023, otherwise 0	MEF

The statistics data are converted into log form before applying the regression model to analysis.

Model Structure for Analysis



4. DISCUSSION OF FINDINGS

Descriptive statistics

PK, MO, and MM (2015) examined the Ricardian model, the simplest model that shows how differences between countries give rise to trade and gains from trade. In this model, labor is the factor of production, and countries differ only in the productivity of labor in different industries. While some of the predictions of the Ricardian model are clearly unrealistic, its basic prediction – that countries will tend to export goods in which they have relatively high productivity- has been confirmed by several studies. If we try to eye the government fiscal budget each year to boost economic development, as evidently in growth of total population, and better off society. As seen in the ASEAN's economy's improvement relationship with estimation of budget 2024 in the table 3.

Table 3: Asian economies estimated national budget 2024 by the law

ASEAN's economies	Budget 2024 (US$ billion)	Total population (million)	Sources
Cambodia	9.40	16.32	Oct 28, 2023, Xinhua.
Indonesia	216.00	279.97	Sept. 19,2023 Reuter.
Vietnam	69.80	101.30	Nov. 10, 2023. Vietnam+
Thailand	97.64	70.40	Sept. 18, 2023, Reuter.
Malaysia	83.29	33.97	Oct. 14, 2023, MOF.

To increase international trade with foreign countries meaning to perform distribution income by growing the GDP, household debts, labor income tax, consumption tax, government spending, and government education spending effects of the economic growth in the case of Cambodia. Seen, the regression model analysis shows directly relationships with economic growth significantly differently under conditions of the null hypothesis have been distributed and the alternative hypothesis is false to reject. IMF (2022) posited that related data collection with independent variables for analysis, as to find the accumulating finance on education, capital effects of the economic growth in terms of Cambodian economy outlook. Emiel, Sander (2006) they pointed out that in the worlds, the expected revenue is increasing in the financial externality, and each bidder's expected utility is independent of the financial externality of optimal auctions with financial externalities. Diane, David, and Greg (2016) they have pointed out in the fourteen economic facts on education and economic opportunity, because of educational attainment is a significant determinant of a range of measures of wellbeing, including an individual's likelihood of marrying, owning a home, or living a long life, as her likelihood of being arrested, educational attainment is also a key determinant of economic success. As

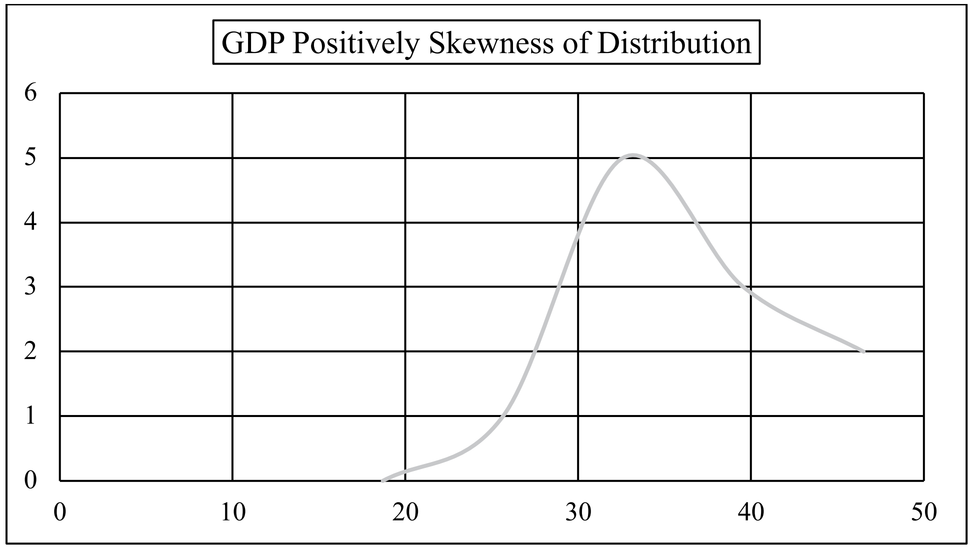
we see chapter 1 payoff to skill is high, such as perseverance, tenacity, and social skills play an important role in shaping economic outcomes. For example, Americans without college degrees constitute the highest educated member of 80 percent of household living below the federal poverty line, as related to highest educational attainment in household by income, relative to the federal poverty level. They have found that cognitive skills and noncognitive skills that an increase of 10 percentile ranks points in cognitive ability, as measured by the armed forces qualification test (AFQT), is associated with about a 15 increase in earning for men and an 11% increase for women. I would like to analyze regression model for a looking for effects of independent variables value increase that be reflected from the accumulating finance on education and capital resulting in the economic growth. We see that analysis of valuation of independent variables influence dependent variable, with the establishment of the multiple regression equation as *Y(t) = a +b1* HOD+b2*LIT +b3*VAT+b4*GES +b5*GGS +b6*DUMMY + error terms*. Representative as household debts *(HOD)*, labor income tax *(LIT)*, value added tax or consumption tax *(VAT)*, government education spending *(GES)*, and government general spending *(GGS)*, social behavior dummy value at 1, otherwise 0. As to look at the results of statistical analysis as followings:

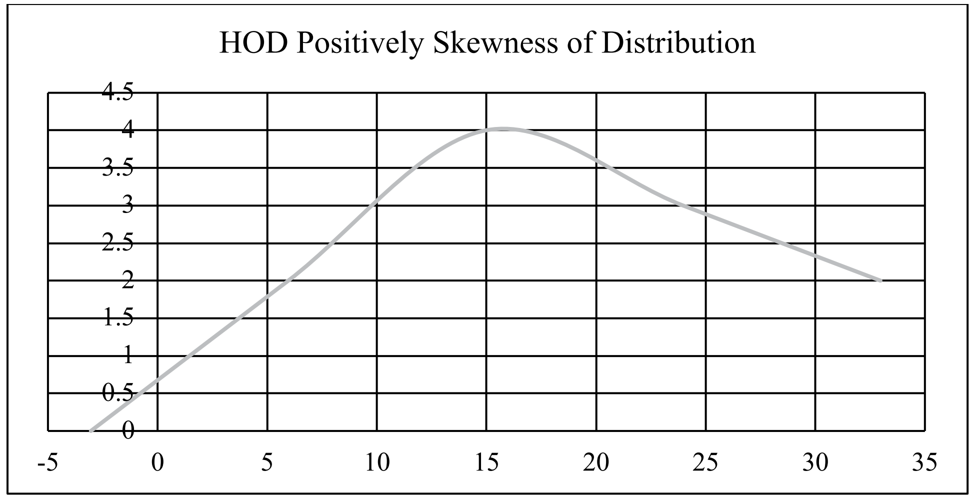
Table 4: Descriptive statistics for the variables

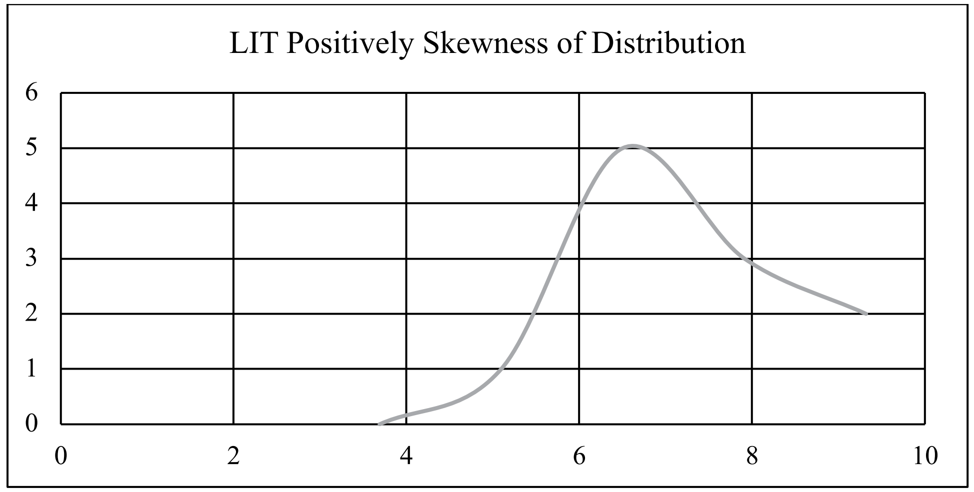
Statistics tools	GDP	GES	GGS	HOD	LIT	VAT
Mean	32.59818	0.200909	8.578182	14.96545	6.503636	3.243636
Median	30.94000	0.190000	8.250000	12.83000	6.190000	3.170000
Maximum	45.09000	0.260000	12.03000	31.01000	9.020000	4.640000
Minimum	24.60000	0.160000	5.070000	3.880000	4.920000	2.130000

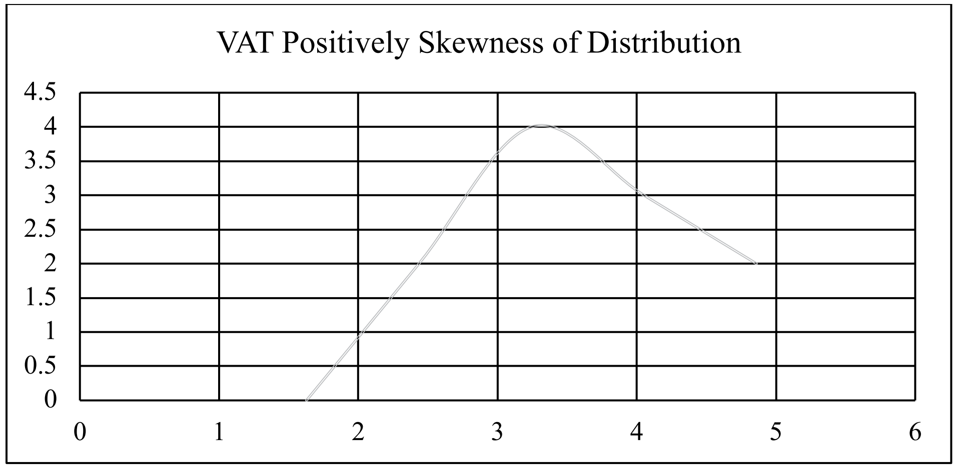
Std. Dev.	6.956364	0.032390	2.108292	9.003636	1.407532	0.808001
Skewness	0.538452	0.488852	0.094515	0.484936	0.528185	0.300643
Kurtosis	1.962878	2.021117	2.119337	1.984947	1.937571	1.991141
Jarque-Bera	1.024533	0.877304	0.371846	0.903367	1.028809	0.632198
Probability	0.599136	0.644905	0.830338	0.636556	0.597857	0.728987
Sum	358.5800	2.210000	94.36000	164.6200	71.54000	35.68000
Sum Sq. Dev.	483.9100	0.010491	44.44896	810.6547	19.81145	6.528655
Observations	11	11	11	11	11	11

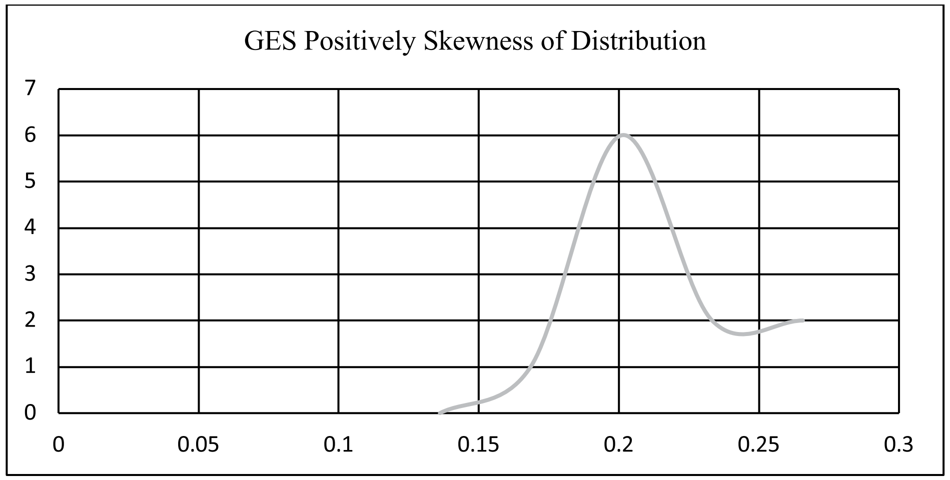
Table 5: Inferential statistics for skewness distribution











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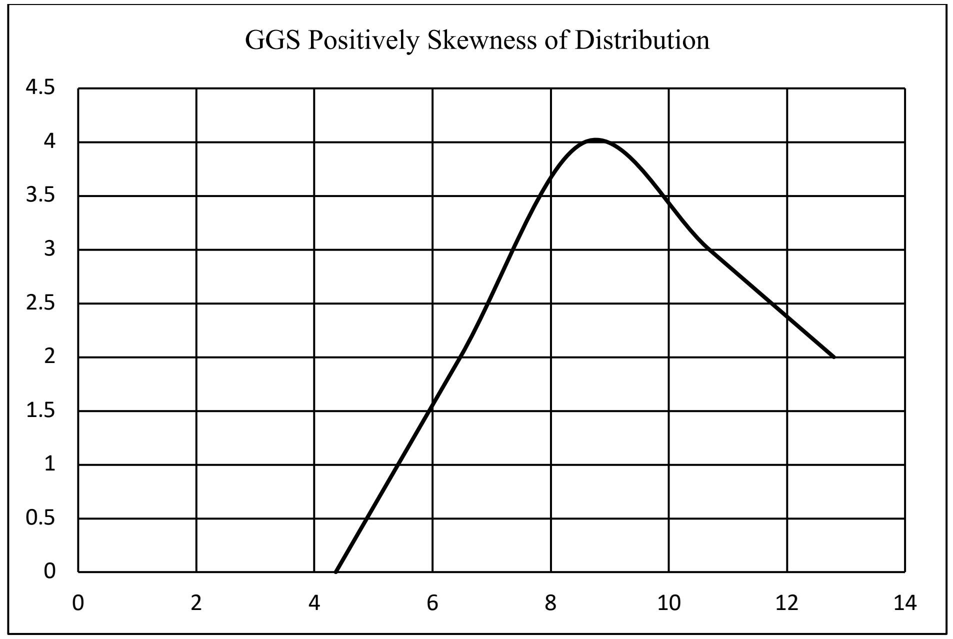

Table 6: ANOVA Analysis

Anova: Single Factor by Columns model						
SUMMARY						
Groups	*Count*	*Sum*	*Average*	*Variance*		
GDP	11	358.58	32.59818	48.391		
HOD	11	164.62	14.96545	81.06547		
LIT	11	71.54	6.503636	1.981145		
VAT	11	35.68	3.243636	0.652865		
GES	11	2.21	0.200909	0.001049		
GGS	11	94.36	8.578182	4.444896		
ANOVA						
Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*

Between Groups	7535.75865	5	1507.152	66.23076	3.87E-23	2.36827
Within Groups	1365.3642	60	22.75607			
Total	8901.12285	65				

Anova: Single Factor by Rows model

SUMMARY

Groups	*Count*	*Sum*	*Average*	*Variance*
GDP	11	358.58	32.59818182	48.39099636
HOD	11	164.62	14.96545455	81.06546727
LIT	11	71.54	6.503636364	1.981145455
VAT	11	35.68	3.243636364	0.652865455
GES	11	2.21	0.200909091	0.001049091
GGS	11	94.36	8.578181818	4.444896364

ANOVA

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	7535.759	5	1507.15173	66.23075645	3.87E-23	2.36827
Within Groups	1365.364	60	22.75607			
Total	8901.123	65				

Anova: Two-Factor with Replication

SUMMARY	HOD	LIT	VAT	GES	GGS	Total
Count	11	11	11	11	11	55
Sum	164.62	71.54	35.68	2.21	94.36	368.41
Average	14.96545455	6.503636	3.243636	0.200909	8.578182	6.698364
Variance	81.06546727	1.981145	0.652865	0.001049	4.444896	42.00384
Total						
Count	11	11	11	11	11	
Sum	164.62	71.54	35.68	2.21	94.36	
Average	14.96545455	6.503636	3.243636	0.200909	8.578182	
Variance	81.06546727	1.981145	0.652865	0.001049	4.444896	

ANOVA

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Sample	0	0	65535	65535	#NUM!	#NUM!
Columns	1386.753316	4	346.6883	19.6657	8.91E-10	2.557179
Interaction	1.13687E-13	0	65535	65535	#NUM!	#NUM!
Within	881.4542364	50	17.62908			
Total	2268.207553	54				

Table 7: Estimated variable value trends value in the time series

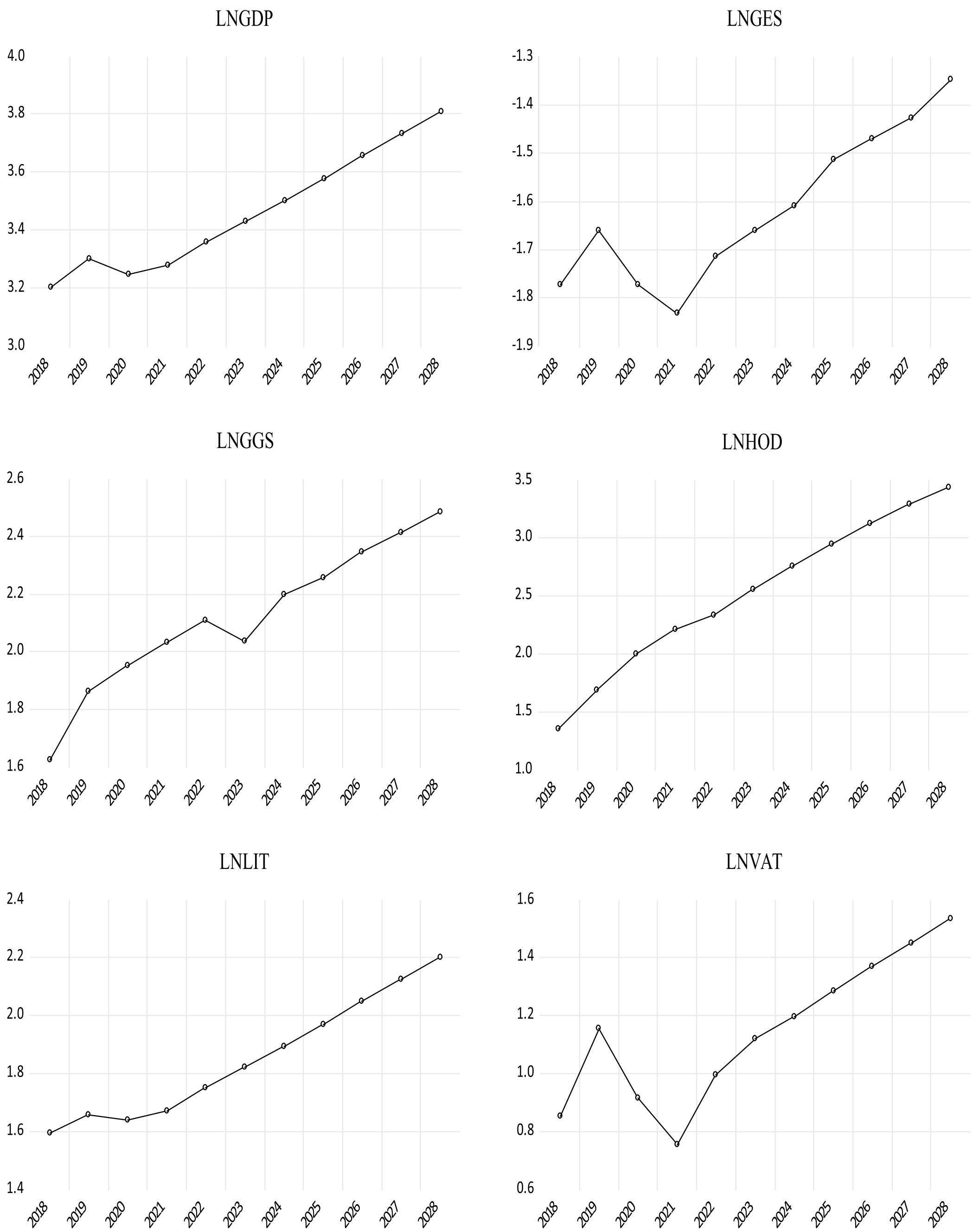

Table 8: Regression analysis

Dependent Variable: LNGDP				
Method: Least Squares				
Date: 04/17/24 Time: 11:01				
Sample: 2018 2028				
Included observations: 11				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
LNGES	-0.044723	0.186385	-0.239949	0.8199
LNGGS	0.070963	0.044299	1.601908	0.1701
LNHOD	-0.031978	0.031455	-1.016599	0.3560
LNLIT	0.931026	0.136020	6.844794	0.0010
LNVAT	0.092708	0.066591	1.392199	0.2226
DUMMY	1.491534	0.569553	2.618781	0.0472
R-squared	0.999558	Mean dependent var		3.464335
Adjusted R-squared	0.999117	S.D. dependent var		0.207440
S.E. of regression	0.006165	Akaike info criterion		-7.037437
Sum squared resid	0.000190	Schwarz criterion		-6.820403
Log likelihood	44.70590	Hannan-Quinn criter.		-7.174246
Durbin-Watson stat	3.764884			

5. CONCLUSION

As results of regression equation shows that effect of economic income tax may distribute to the economic growth. The coefficients of GES, HOD increases in one unit, the economic growth decreases in 0.044723 (or 4.45%) unit and 0.031978 (3.2%) unit. Regarding to accumulation of financial education and financial capital is different way of thinking of economists and policymakers to assess the strong distribution of education into the economic growth in the long term as to reflect the higher labor income tax, and financing capital increase is a more significant distribution into the economic growth. The empirical evidence suggests the most important determinant of independent variable is share of the economic growth that accrues to economic income tax and household debts. Public policy perspective, suggest government will have to pay attention to accumulating finance on education and capital for economic growth. The public policies support inclusive growth as the same of policies to maintain macroeconomics stability by increasing the national budget in education variable, other factors, and dummy variable, it may prevent the rise in households' economy and good society.

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Annex 1. Variables data collected in the analysis

Time	GDP	HOD	LIT	VAT	GES	GGS	Dummy
2018	24.60	3.88	4.92	2.35	0.17	5.07	0
2019	27.09	5.39	5.24	3.17	0.19	6.45	0
2020	25.77	7.36	5.15	2.5	0.17	7.04	0
2021	26.6	9.14	5.32	2.13	0.16	7.62	0
2022	28.82	10.37	5.76	2.71	0.18	8.25	0
2023	30.94	12.83	6.19	3.06	0.19	7.68	1
2024	33.23	15.78	6.65	3.31	0.2	9.01	1
2025	35.86	19.16	7.17	3.61	0.22	9.56	1
2026	38.78	22.91	7.76	3.93	0.23	10.47	1
2027	41.80	26.79	8.36	4.27	0.24	11.18	1
2028	45.09	31.01	9.02	4.64	0.26	12.03	1

Source: mainly MEF, and for data values of 2024, 2025, 2026, 2027, 2028 calculated by the Author.

Unit currency: U.S. Billion dollars. Foreign exchange: $1= 4,000 Riels.

LIMITED STOCK MARKET PARTICIPATION IN CAMBODIA STOCK EXCHANGE (CSX): EXTENSION OF THE THEORY OF PLANNED BEHAVIOR

Dr. SAU Lay[1] and Dr. LY Sok Heng[2]

ABSTRACT

The increasing important roles of financial market across the continent in economic development have been long recognized by many governments around the world including Cambodian government as well. Therefore, Cambodia's Stock Exchange (CSX) was established in July 2011. Since the establishment, the number of listed companies had been notably increased, unfortunately, the trading volumes were small numbers. The main objectives of this study are to find out factors influencing the stock holding puzzle, by using extension of the Theory of Planned Behavior (Ajzen, 1991) and also to access financial literacy and financial wellbeing of the participants. A survey questionnaire with 7-point Likert scale was collected through Google Form on a sample of 103 students, most were master degree, then descriptive statistics were used to assess the financial literacy, financial wellbeing and summated scale regression was used to determine the factors influenced the intention of stock market participation. The result of descriptive statistics revealed that participants had relative low knowledge in financial literacy, and low financial wellbeing satisfaction, low confidence or trust in the financial system, low inconvenience in trading process, fair (risk and return) investment, moderate positive attitude toward investment, and finally, the participants has slightly high intention to participation in the stock market. Meanwhile, a general to specific approach was used to build a regression model, four insignificant variables, such as economic information literacy, trust on issuing company, financial literacy application and trust on advising company were dropped from the model. As result, six factors remaining in the model. Interestingly, the regression result provided all signs of coefficient as the theory promises; attitude, perceived risk and return, perceived trust on regulator and financial auditing companies, financial wellbeing satisfaction, those were positively influencing the investment intention, whereas financial hassle or inconvenience was negatively affected the investment intention.

Keywords: *Stock exchange, investment intention, attitude, perceived risk, trust, financial wellbeing, and financial hassle.*

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1. INTRODUCTION

1.1 Background of the Study

Stock Market is one of the most important sectors, which plays an important role in contributing to the wealth of an economy. It helps to efficiently direct the flow of savings and investment in the economy in ways that make possible the stock piling of capital. Particularly, it fulfills a central function in the economy, which bring together savers and investors (providers of capital) and with companies and the state (borrowers) on the other. Being an important pillar of the economy of a country, the stock market plays a pivotal role in the growth of the industry and commerce which ultimately affects the economy of the country to a large extent (Muhammad et al., 2016). Many researchers have interested in exploring the relationship between the stock market and economic development. Levine (1996) conducted a wonderful investigation to empirically evaluate the relationship between stock market development and long-term growth using data on 41 countries. The result suggested that stock market development is positively associated with economic growth. Moreover, instrument variables procedure indicated a strong connection the predetermined component of stock market development and economic growth in the long run. While cross-country regressions imply a strong link between stock market development and economic growth. Other studies also confirmed that in the long-term, stock market development –is shown to have a significant and positive effect economic growth (Tan & Shafi, 2021; Choong et al., 2010). This is the rationale that the industrial bodies, government advisors and even the central bank of the country keep a close eye of observation on the activities of the stock market (Nazir et al., 2010).

The increasing important roles of financial markets across the world in economic development have been long recognized by many governments around the world including Cambodian Government as well. As results, Cambodia's Stock Exchange (CSX) was established in July 2011. Until now, there has been eleven listed companies on the exchange and their stocks are traded with relatively small volume. During 2019, the trading volume was about 20,000 dollars per day. This volume was very small amount in comparing with trading volumes in Thailand stock market, which was about 20 billion dollars per day (Sok Hour, 2019). Recent CSX statistics reported that the total volume trading was 206,308 KHR (million) or about 50.2 million US dollars in 2023 (csx.com.kh). At the same time, the total volume trading in cash account in Thailand's stock market was 24,561,927 THB (million) or about 706,372.87 million dollars (www.set.or.th). The level of participation in stock markets leads to a phenomenon called the stock holding puzzle (Banyen & Nkuah, 2015). Despite the extensive research conducted to find rational explanations to the stock holding puzzle. As results, there was a general agreement that financial literacy has been a main root of effect on the stock market participation. Recognizing the fact, Cambodia Stock Exchange (CSX) management has tried organizing extensive seminars to push the trade, finally, the trading volume in this stock market has relatively increased.

1.2 Research Objectives

Trading volume by individual investors at the Cambodia Stock Exchange (CSE) has been relatively low, and the reasons for the trading had not been well known. The aim of this study is to explore the behavioral factors that influencing individual or household investor's decision to participate in the CSX. Particularly, the aim consists of five objectives:

1. To assess financial literacy of participants on equity investment
2. To assess current financial wellbeing of participants
3. To evaluate perceived risk and return on CSX investment
4. To explore factors contributed to stock market participation intention
5. To provide some implication

1.3 Scope of the Study

This study focuses on factors influencing Cambodian working adults to make decision on equity investment by using the extension of the Theory of Planned Behavior TPB) of Ajzen (1991). A convenient sampling method was used to collect data from student, who are major in finance at the National University of Management (NUM), most of them were master degree, then descriptive and multiple regression were used to meet the research objectives.

2. LITERATURE REVIEW

2.1 Theoretical Background

The theory of planned behavior (TPB) was proposed Ajzen (1991). The theory is commonly used to predict and understand behaviors. It posits that determinants of intentions are *attitudes*, *subjective norms*, and *perceived behavioral control*. Attitudes refer to the extent to which a person has a favorable or unfavorable appraisal of a given behavior. Attitude consists of behavioral beliefs and outcome evaluations. Likewise, *subjective norm* refers to the belief that an important person or group of people will approve and support a particular behavior, and *perceived behavioral control* refers to a person's perception of the ease or difficulty of performing the behavior of interest. The *perceived behavioral control* includes self-efficacy

(internal factor) the resources and opportunities (external factors) available to a person to dictate the likelihood of behavioral achievement Ajzen (1991).

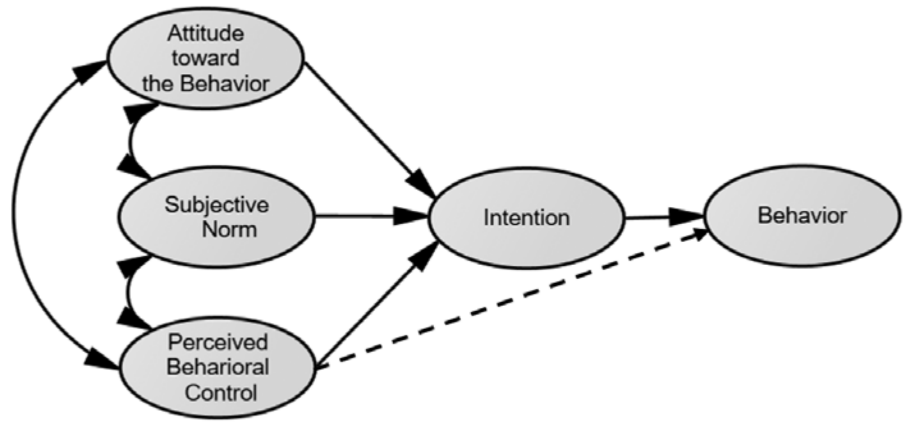

Figure 1: Theory of Planned Behavior (Ajzen, 1991)

2.2 Previous Study on Stock Market Participation

Stock market have important role in economic development, therefore it has been well documented in the literature reviews. Different researches employed different concept or and different theories. Among the theory based, the theory of planned behavior (TPB) has been widely used to predict the stock market participation. Example, Nadeem et al., (2020) used the TPB to determine the factors affected the stock market participation with a survey from 250 active investors. Similarly, Hwang and Lee (2020) and Yang et al., (2021) also used the TPB to predict the stock market participation. Meanwhile, Mosalamy and Metawie (2018) used The TPB to explore factors influence the stock market participation in Egypt. Another specific study by Cucinelli et al., (2016), who used the

TPB to investigate factors influenced customer and advisor financial decisions.

It is noted that the TPB is a psychological theory proposed by Ajzen (1991) to predict human social behavior. While stock market decision involves several complicated concepts. To make the TPB well apply to the stock market decision, some authors like to apply the theory with extension, for example, Raut et al., (2018) and Akhtar and Das (2019) used the TPB extension to predict the stock market participation in India. Two years later Bhatia et al., (2021) used the TPB extension and similar research method to predict the stock market participation in the country. Recently, Hwang and Lee (2020) also used TPB extension to investigate factors influence on investment decision.

2.3 Gaps in Previous Studies

Most previous studies measure the financial literacy and trust constructs in general, they rarely broke down these two constructs to facet. The current study classified the financial construct or variable into two facets-economic information literacy and financial literacy application, based on literacy definition from Lusardi and Mitchell (2014), because economic information analyses is very important steps for investment decision. Additionally, the study also broke down trust construct into four facets-regulator, issuing companies, advising firm and auditing firm trusts. The classification is analogue to trust definition of Guiso and Sodini (2013), who assert that stock market participation requires confidence in information sources, financial advisors, portfolio managers, and more generally, on the overall reliability of the financial system.

In general, conceptual framework outlines the concepts or variables being studied and their relationships. From the literature reviews, there are several factors influence on investment decisions of individual investors. Those factors are not influenced independently, but rather in combination. Therefore, a research framework should be established to capture the whole aspect of investment decisions. The current study is represented in Figure 2.

2.4 Operational Definition and Hypothesis

Financial Attitude: According to Ajzen (1991, attitude toward a behavior is defined as a person's overall evaluation of performing the behavior in question. While, financial attitude can be considered as the psychological tendency expressed when evaluating recommended financial management practices with some degree of agreement or disagreement (Parrotta & Johnson, 1998). Likewise, Arifin (2018), attitude refers to a person's viewpoint and mindset about how they handle their finances and make financial decisions. A number of researches have concluded that financial attitudes play an important role in determining a person's financial behavior intention (Jaffar & Musa, 2016; Ilyas et al., 2021)

H1: Financial Attitude (ATT) is positive influencing on investment intention among Cambodian working adults.

Perceived Risk and Return: Conventional theory often assumes that financial risk is objective and measured by the volatility of yields. Whereas, risk perception is highly subjective and affected by societal influences and cognitive biases. Pidgeon et al. (1992) (as cited in Diacon & Ennew, 2001) state that risk perception involves people's beliefs, attitudes, judgments and feelings, as well as the wider social or cultural values and dispositions. These characteristics are very similar the attitude construct of Ajzen (1991), which refers to behavioral beliefs and outcome evaluations. In investment analyses, rational investor usually decides to invest in any individual security based on risk and return perceived or evaluation. The expected return is the amount of profit or loss an investor can anticipate receiving on an investment. Most empirical studies revealed also that the investors' decision is affected by the expected risk and return, which are investment outcomes in the future. Additionally, the decision is not only influenced by future outcome, but also influenced by the past or realized return (Kempf et al., 2014; Merkle & Weber, 2014; Arrondel et al., 2014). In general, an investment with higher risk provides higher expected return; therefore, risk and return are trade-off. However, investors usually understand their bias, do not equally weigh the risk and return. According to Ganzach (2000), for unfamiliar assets are unidimensional perception on a continuum ranging from "good" to "bad". The judgments of risk and return are derived from this unidimensional attitudinal continuum. If an asset is perceived as good, it will be judged to have both high return and low risk, whereas if it is perceived as bad, it will be judged to have both low return and high risk. For familiar assets, perceived risk and return are determined by the actual values of risk and expected return; the higher the perceived return and the lower the perceived risk, the more favorable will be the global preference.

H2: Perceived Risk and Return (PRR) is positive influencing on stock market participation intention among Cambodian working adults

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Financial Literacy: Although several financial literacy (FL) definitions have been proposed, there is a universally accepted meaning. Most authors seen to be agreed on the definition of financial literacy- the ability to evaluate or use knowledge and skills to manage financial resources effectively for a lifetime of financial well-being (A. Hung et al., 2009; Mandell & Hanson, 2009; Mandell, 2008; Lusardi & Tufano, 2015). An individual also needs a sense of self-assuredness, or 'self-belief, in his or her own capabilities. This personal attribute is known, within the psychology literature, as 'self-efficacy' (CHONG et al., 2021). Meanwhile, Zait and Bertea (2015) classify financial literacy into four basic financial fields – knowledge, communication, abilities and confidence. Likewise Huston (2010) defined financial literacy as measuring how well an individual can understand and use personal finance-related information. All above definitions have similar characteristics with self-efficacy construct in the TPB of Ajzen (1991), who defined self-efficacy as internal factor dealing largely with the ease or difficulty of performing a behavior.

Interestingly, Lusardi & Mitchell (2014) provide definition financial literacy goes beyond the financial knowledge considered by previous definitions. They define FL as the ability of economic information analysis and informed financial decision-making. Based on the definition, FL can be classified into two financial literacy-economic information literacy (EIL) and financial application literacy (FAL). This classification is conformed to Huston (2010), who recommended that when developing an instrument to measure financial literacy, it would be important to determine not only if a person knows the information but also if he/she can apply it appropriately. Additionally, in an investment process, rational investor's behavior is always influenced by macro-economic information before making any investment activity. For example, when the economic information is positive, investors move into stocks with high beta. However, it is bad they move into low stock beta or bonds or keep money in the bank (Bodie & Kane, 2020).

H3a: Economic Information Literacy (EIL) is positive influencing on stock market participation intention among Cambodian working adults.

Financial literacy also refers to an individual's belief in his or her capacity to execute the behaviors necessary to produce specific performance attainments (Akhtar, 2008, as cited in CHONG et al., 2021). Kadoya et al., (2017) asserted that lack of financial literacy is the reason people's reluctance in stock market participation in Japan. Similarly Van Rooij et al., (2011) found that any investors who have low financial literacy are significantly less likely to invest in stocks.

H3b: Financial Literacy Application (FLA) is positive influencing on stock market participation intention among Cambodian working adults

Perceived Trust: Guiso et al., (2008) define trust as the subjective probability individuals attribute to the possibility of being cheated. This subjective probability is partly based on objective characteristics of the financial system. According to Guiso and Sodini (2013), the decision to participate in financial markets requires investors to form beliefs about the risk-return tradeoff achievable by investing in risky assets. It also requires confidence in information sources, financial advisors, portfolio managers, and, more generally, on the overall reliability of the financial system. In its most operational form, trust can be considered as the belief that another person or institution is carrying out actions that are beneficial or at least

not harmful to other people, regardless of their ability to audit these actions (Gaspar et al., 2020). Differences in educational background rooted in past history can create considerable differences in levels of trust across individuals, regions, and countries (Guiso et al., 2004). Guiso et al., (2008) developed a model to predict the impact of trust on portfolio decisions by using sample of household in Netherland. Not only does the model provide testable implications, but it also gives us a sense of the economic im portance of this phenomenon. The authors assert that there is evidence consistent with lack of trust being an important factor in explaining the limited participation puzzle in Europe member like Dutch and Italia as well as in cross-country data. On the other hand, specific trust in advice given by financial institutions represents a prominent factor for stock investing, compared to other tangible features of the banking environment (Georgarakos & Pasini, 2011). In management perspectives, corporation is governed by board of directors and its power is delegated by shareholder. But delegation requires trust. Thus, to invest money in assets other than cash, trust becomes more necessary for the less sophisticated the investor (Guiso et al., 2004). Interestingly, Changwony et al., (2015) confirmed that more trusting individuals are more likely to participate in the stock market.

H4a: Perceived Trust on Regulator (PTR) is positive influencing on stock market participation intention among Cambodian working adults,

H4b: Perceived Trust on Issuing Company (TIC) is positive influencing on stock market participation intention among Cambodian working adults,

H4c: Perceived Trust on Auditing Firm (AUT) is positive influencing on stock market participation intention among Cambodian working adults, *H4e: Perceived Trust on Advising Firm (ADT) is positive influencing on stock market participation intention among Cambodian working adults.*

Hassle Factor: Generally, perceived cost transaction effects investment decision. The costs may include time or and money spent in understanding basic investment principles as well as acquiring enough information about risks and returns to determine the household's optimal mix between stocks and risk-less assets. According to Bertaut (1998), information required for market participation to be costly relative to expected benefit in the US and the same as true in Europe (Guiso et al., 2003). Sivaramakrishnan et al.,(2017) and Handranata et al., (2023) asserted that hassle factor was negatively influenced stock market participation

H5: Perceived Hassle Factor (PHF) is negative influencing on stock market participation intention among Cambodian working adult.

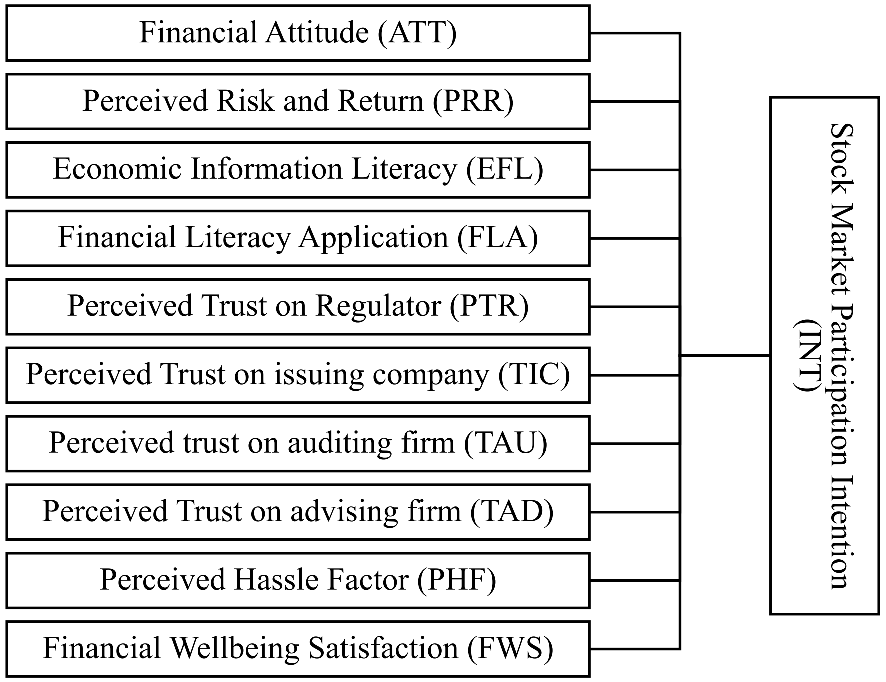
Financial Wellbeing Satisfaction: Derived from the definition of general wellbeing, Sivaramakrishnan et al., (2017) define financial wellbeing as a state of being financially healthy, happy, and free from worry and this could be the concept that should be addressed. This feeling of security can be based on objective factors like wealth, net worth or income or on subjective factors. Different individuals feel secure at different levels of wealth. Whereas, Muleke and Muriithi (2013, as cited Kamakia et al., 2017)) broadly define financial wellbeing of a person as a state of mind that measures their satisfaction with own financial matters.

H6: Financial Wellbeing Satisfaction (FWS) is positive influencing on stock market investment intention among Cambodian working adults.

Stock Market Investment Intention: Intentions are assumed to capture the motivational factors that influence a behavior. There are indications of "how hard people are willing to try, of how much of an effort they are planning to exert, in order to perform the behavior" (Ajzen, 1991). The behavioral intention is an dependent or endogenous variable in many experimental studies that use theory of planned behavior as theoretical background. Many studies also claim the strong involvement of intention in behavior performance in a way that increases the chance of the behavior being conducted. In the case of investment on stock market, behavioral intention is considered to present individual investor's motivation to make a specific investing decision (Njuguna, 2018). Several studies involving financial products have used investment intention as a dependent variable to measure the intention to invest in equity like Bhatia et al., 2021; Sivaramakrishnan et al., 2017; Yang et al., 2021.

2.5. Conceptual Framework

Figure 2: Conceptual Framework



Source: Extension of The Theory of Planned Behavior (Ajzen, 1991)

3. METHODOLOGY

3.1 Research Design

The study used quantitative method through a survey questionnaire to collect primary data. The questionnaire consists two parts. First, demographic factor and second, factors influencing the stock market participation intention.

3.2 Measures of Constructs

The present work is based on data collection through well-structured questionnaire. All items were measured by a seven point -Likert scale. Most items were adopted and some adapted from the previous studies.

Financial Attitude (ATT) construct was measure by four items, which adapted from Ramayah et al.,(2009), Perceived Risk and Return (PRR) construct was measured by two items adapted from Ganzach (2000). Financial Literacy was broke down into two constructs analogue to Huston (2010) definition. First, Economic Information Literacy (EIL) construct was measured by four general macro-economic factors such as unemployment rate, interest rate, inflation and tax, which derived from Bodie et al., (2013), and Financial Literacy Application (FLA) was also measured by four items, the first two items are adopted from Dam and Hotwani (2018) and other two were self-developed. Trusts was broke down into four constructs. First, Perceived Trust on Regulator (PTR) was measured by four items adapted from Sivaramakrishnan et al., (2017). Second, Perceived Trust on Issuing Company (TIC) was measured by seven items adapted from Ennew et al., (2011), and third, Perceived Trust on Financial Auditing Firms (AUT) was measured by four items and fifth, Perceived Trust on Financial Advising Firms (ADT) also adapted from Ennew et al., (2011). Meanwhile, Perceived Hassle Factor (PHF) was measured by three items adapted from Vissing-Jørgensen and Attanasio (2003). Whereas, Financial Wellbeing (FWB) was measured by five items adapted from Prawitz et al., (2006), and finally, Stock Market Participation Intention (INT), dependent variable, was measured by three items, adapted from Trang and Tho (2017) and item 4th adopted from Ajzen (2002). The number of constuct and items and sources are displayed in Table 1.

Table 1: Construct, Items and Sources

N^0	Construct/Variable	Item	Sources (adapted or adopted)
1	Stock Investment Intention (INT)	4	Item 1-4 adapted from Trang and Tho (2017)
2	Financial Attitude (ATT)	4	Ramayah et al., (2009)
3	Perceived Risk and Return (PRR)	2	Ganzach (2000)
4	Economic Information Literacy (EIL)	4	(Bodie et al., 2013)
5	Financial Literacy Application (FLA)	4	Item 1, 2 from Dam & Hotwani, (2018)and Item 3-4 self-develop
6	Perceived Trust on Regulator (PTR)	4	Sivaramakrishnan et al., (2017)
7	Issuing Companies Trust (ICT)	7	Ennew et al., (2011)
7	Auditing Firm Trust (AUT)	4	Ennew et al., (2011)
8	Advising Firm Trust ((ADT)	4	Ennew et al., (2011)
9	Hassle Factor (HF)	3	issing-Jørgensen & Attanasio (2003)
10	Financial Wellbeing Satisfaction (FWS)	5	Prawitz et al., (2006)
11	Intention (INT)	4	Trang and Tho (2017) and Ajzen (1991)

3.3 Sampling Method and Sample Size

After, the questionnaire was completely organized, a convenience sampling was used, the questionnaire was sent to student during the class through Google Form. Almost two weeks, a data of 103 responses was sent back, then coded into SPSS for screening and then analyzing.

3.4 Data Analysis

Before conducting analyses, Cronbach's alpha analysis was checked to meet the instrument validity requirements. At the same time, a profile analysis was also used to check characteristic of the sample. Then, the descriptive analysis was also conducted to the first three objectives and

finally summated regression analysis was employed to test the hypotheses and to explore the factors influenced the stock market participation intention to meet the fifth objective.

3.5 Model Specifications for Regression Analysis

To estimate the above conceptual model, a specification model is developed as follows:

$$INT_i = \beta_0 + \beta_1 ATT_i + \beta_2 PRR_i + \beta_3 ELI_i + \beta_4 FLA_i + \beta_5 PTR_i + \beta_6 TIC_i + \beta_7 AUT_i + \beta_8 ADT_i + \beta_9 PHF + \beta_{10} FWS_i + \varepsilon_i$$

$where$:

INT_i: Dependent variable as specified in the conceptual model

ATT, PRR, ELI, FLA, PTR, TIC, AUT, ADT, PHF, FWS: Independent variables

β_1 to β_{10}: Coefficients of each independent variable

$\beta_0 = Intercept\ or\ constant$

ε_i: Error term (i)

4. DISCUSSION OF FINDINGS

4.1 Demographic Profile Analysis

Table 2 shows that among 103 participants, there are 59 (57.5%) were female and 44 (42.7%) were male, and most of the respondents age were between 26-32 years, which account for 45.6 percent and between- 3-39 years, which account for 33 percent, and 81.6 percent of respondents who got master degree, and most of them employee in private company (52.4%) and only 9.7 percent business manager and 31.1 were public employee. Finally, the most monthly income were bewteen 500 to 1000 dollars. Interestingly, the number of respondents who experienced in investment was 15 respondents (14.5%), whereas non experienced investment was 88 people (about 85.5%).

Table 2: Respondent Profile Analysis

Profile Factor	Categories (N=103)	Frequency	Percentage
Gender	Female	59	57.3
	Male	44	42.7
Age	18-32 year	12	11.7
	26-32 year	47	45.6
	33-39 year	34	33.0
	40 and over	10	9.7
Education	Bachelor degree	19	18.4
	Master degree	84	81.6
Occupation	Businessman	1	1.0
	Public employee	32	31.1
	Private employee	54	52.4
	Business manager	10	9.7
	Student	1	1.0
	Others	5	4.9
Monthly Income	less than $500	23	22.3
	$500-$1000	47	45.6
	$1001-$1500	20	19.4
	$1501-$2000	5	4.9
	$2000-$2500	4	3.9
	Over $2500	3	2.9
Investment Experience	Yes	15	14.5
	No	88	85.5

4.2 Instrument Validity Analysis

Table 3: Instrument Validity Result

Variable	Item	Cronbach's Alpha
ATT	4	0.85
PRR	2	0.97
EIL	4	0.82
FLA	4	0.75
PTR	4	0.95
TIC	7	0.96
AUT	4	0.96
PHF	3	0.82
FWS	5	0.77
INT	4	0.97

Table 3. shows that the Cronbach's alpha of each construct is ranged from 0.75 to 0.97, which is 0.70 or higher. Those value of Cronbach's alpha are satisfied the instrument validity. Therefore, the instrument used in the current study was valid and could be used for further analysis.

4.3 Descriptive Statistics Analysis

Table 4: Mean and Standard Deviation of Variables

Variable	N	Missing	Mean	Std. Deviation
MATT	101	2	5.1262	1.02812
MPRR	103	0	4.4223	1.50613
MEIL	103	0	4.8495	1.23835
MFLA	103	0	4.7451	0.98268
MPTR	103	0	4.6553	1.37427
MTIC	103	0	4.6824	1.13529
MAUT	103	0	4.8083	1.16116

MADT	103	0	4.665	1.20281
MPHF	103	0	4.6278	1.16905
MFWS	103	0	4.4136	0.86829
MINT	102	1	4.7255	1.43873

Table 4 reveals that the means of each construct was ranked from 4.4136 to 5.1262. Notably, the mean of attitude toward (ATT) investment intention was 5.1262, highest mean among investigating variables, it lied between 5 and 6 (slightly agree and agree). Meanwhile, the means of other variables lied between 4 and 5 (no idea and slightly agree), most of them were appeared to be slightly agree with the statement.

4.4 Regression and Hypotheses Analyses

The initial regression output was showed in Table 5. From the table 5, it was noted that four variables, such as EIL, TIC, FLA, and ADT were insignificant.

Table 5: Preliminary Regression Output

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.905	.756		-1.197	.234
	MATT	.266	.125	.192	2.137	.035
	MPRR	.143	.079	.150	1.795	.076
	MEIL	-.011	.090	-.009	-.120	.904
	MFLA	.077	.122	.053	.630	.530
	MPTR	.224	.115	.216	1.950	.054
	MTIC	.073	.181	.058	.405	.686
	MAUT	.221	.166	.177	1.332	.186
	MADT	.084	.149	.071	.566	.573
	MPHF	-.175	.090	-.144	-1.950	.054
	MFWS	.292	.130	.178	2.238	.028
a. Dependent Variable: MINT						
b. F-Statistic= 12.360 (p=0.000)						
c. R-square = 0.58						
d. N=103						

Using the general to specific approach, those four insignificant variables, such as EIL, TIC, FLA, and ADT were dropped from the model. Finally, the regression result of the remaining six variables are showed in Table 6.

Table 6: Finalized Regression Output

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.864	.716		-1.207	.230
	MATT	.297***	.112	.214	2.657	.009
	MPRR	.159**	.072	.167	2.196	.031
	MPTR	.267***	.099	.257	2.702	.008
	MAUT	.313**	.120	.251	2.596	.011
	MPHF	-.173**	.085	-.143	-2.033	.045
	MFWS	.321**	.125	.196	2.568	.012
a. Dependent Variable: MINT						
b. F=21.135 (p=0.000), R-Square=0.577, N=103						
*** Significance at 1%						
** Significance at 5%						

Table 6 reveals that the value of F-statistic is 21.135 (p=0.000), highly significant and r-square of 0.58. Additionally, the model provides all of coefficients sign as the theory promises; four coefficients were significant at 5%-perceived risk and return (PRR) variable had a positive coefficient of 0.159 (p=0.031), financial auditing firm trust (AUT) had a positive coefficient of 0.313 (p=0.011), perceived hassle factor (PHF) has a negative coefficient of -0.173 (p=0.045) and financial wellbeing has a positive value of 0.321 (p=0.012). Whereas other two coefficients were significant at 1% significant level. Financial attitude has a positive coefficient of 0.297 (p=0.009) and perceived trust on regulator (PTR) has a positive coefficient of 0.267 (p=0.008).

Table 7: Hypotheses Results

Hypotheses Description	**Decision**
H1: Financial Attitude (ATT) is positive influencing on investment intention among Cambodian working adults.	Supported
H2: Perceived Risk and Return (PRR) is positive influencing on stock market participation intention among Cambodian working adults	Supported
H3a: Economic Information Literacy (EIL) is positive influencing on stock market participation intention among Cambodian working adults	Not supported
H3b: Financial Literacy Application (FLA) is positive influencing on stock market participation intention among Cambodian working adults	Not supported
H4a: Perceived Trust on Regulator (PTR) is positive influencing on stock market participation intention among Cambodian working adults.	Supported
H4b: Perceived Trust on Issuing Company (TIC) is positive influencing on stock market participation intention among Cambodian working adults.	Not supported
H4c: Perceived Trust on Auditing Firm (AUT) is positive influencing on stock market participation intention among Cambodian working adults.	Supported
H4e: Perceived Trust on Advising Firm (ADT) is positive influencing on stock market participation intention among Cambodian working adults.	Not supported
H5: Perceived Hassle Factor (PHF) is negative influencing on stock market participation intention among Cambodian working adult.	Supported
H6: Financial Wellbeing Satisfaction (FWS) is positive influencing on stock market investment intention among Cambodian working adults.	Supported

4.5 Findings and Discussion

The first objective of the research is to evaluate the financial literacy of participants. The financial literacy is divided into variables-economic information literacy (EIL), which refers to the ability to analyze the information related to stock market, and financial literacy application (FLA), which refers to the ability to apply financial knowledge. The result in Table 4 reveals that the means of EIL and FLA were 4.8495 and 4.7451 respectively. These numbers indicate that the financial literacy of the participants was above average. However, they had no effect on stock market participation intention, as evidence from preliminary regression result in Table 5 (p-value of the two variable 0.904 and 0.530 > 0.05, respectively). Similarly, perceived trust on issuing company (TIC) and perceived trust on advising company (ADT) had means score of 4.6824, and 4.665, respectively. These number indicate that the level of trust on issuing company and financial advising companies were above average.

However, the preliminary regression result in Table 5 reveals that those two variables had no influence on stock market participation intention (p-value of TIC in Table 5 was 0.686 >0.05 and that of ADT was 0.573>0.05). Finally, those four variables were dropped from the regression analyses.

Descriptive statistics in Table 4 reveals that the participants had a positive attitude toward equity investment with a mean score of 5.1262. This number indicate that the participants evaluated the equity investment as good behavior (lie between good and very good, but most likely to be good investment). Additionally, this variable was also influenced on stock market participation intention (p-value of MATT in Table 6 was 0.009 <0.05). The finding confirmed the result of Jaffar and Musa (2016) and Ilyas et al., (2021). Similarly, the participants perceived that the investment on equity in CSX was a fair investment, the mean score of perceived risk and return, MPRR in Table 4 was 4.4223, which lie between fair and good but most likely to be fair. Additionally, this variable was also influenced the investment participation intention (p-value of MPRR in Table 6 was 0.031 <0.05). This finding conformed the results of Kempf et al., (2014), Merkle and Weber (2014), and Arrondel et al., (2014), who found that the investors' decision was affected by the expected risk and return, which are investment outcomes in the future and also affected by the past or realized return. Interestingly, Table 4 reveals perceived trust on regulatory (PTR) had a mean of 4.6553, which lie between slightly trust and trust, but it most likely to be trust. This variable was highly significantly influenced on the stock market investment intention (p-value of MPTR in Table 6 was 0.008<0.000). Meanwhile, mean score of perceived trust or confidence on financial auditing firm, MAUT variable was 4.8083, which lie between slightly trust and trust, but it most likely to be trust, and it was positively

significantly influenced on investment intention (p-value of MAUT in Table 6 was 0.011<0.05). This finding also confirmed the results of Changwony et al., (2015), and Guiso et al., (2008), who found that more trusting individuals are more likely to participate in the stock market. Whereas, perceived hassle factor (PHF) had a mean score of 4.6278, which lie between neutral and low inconvenience, but is most likely to be low convenience. This variable was significantly negatively influenced on investment intention (p-value of MPHF in Table 6 was 0.045 <0.05). This finding conformed to the finding of Sivaramakrishnan et al.,(2017) and Handranata et al., (2023), who found that hassle factor was negatively influenced stock market participation intention. Finally, financial wellbeing satisfaction (FWB) had a mean score of 4.4136, lie between no idea and slightly satisfactory. This variable was positively significantly influenced the investment intention. This finding was not consist with the result of Sivaramakrishnan and Srivastava (2019) and Sivaramakrishnan et al., (2017), who found that financial wellbeing satisfaction was negatively influence the stock market participation intention. The difference finding may result from different social security system or culture between Asian and European. Furthermore, it is also noted that the mean score of financial wellbeing satisfaction in this sample was still low, just slightly satisfactory degree. This indicates that the financial wellbeing the participants may not be secured enough for long run expenditure. Therefore, they needed to improve or increase the financial wellbeing to a secured level by making investment in equity market.

5. CONCLUSION, IMPLICATION AND FUTURE RESEARCH

5.1 Conclusion

The objectives the study is to evaluate the financial literacy, financial wellbeing, the intention of participation in stock market, especially factor(s) influencing the stock market participation intention, by using the extension of the Theory of Planned Behavior of Ajzen (1991) and a survey questionnaire with 7-point Likert scale, most adopted and some adapted from previous studies. A sample of 103 respondents took part in the survey, 81.6 percent were master degree, and 14.5 percent of them were experienced in stock market investment. According to descriptive statistics, participants had relative low knowledge in financial literacy, and low financial wellbeing satisfaction, moderate positive attitude toward investment, low confidence or trust in the financial system, low convenience in trading process, fair (risk and return) investment and finally, the participants has slightly high intention to participation in the stock market. Interestingly, the regression result provided all signs of coefficient as the theory promises, additionally there were several factors contributed to the stock participation intention such as attitude, perceived risk and return, perceived trust on regulator and financial auditing companies, financial wellbeing satisfaction were positively influence the investment intention, whereas, financial hassle or inconvenience factor was negatively affected the investment intention.

5.2 Implication

To motivate the investors to participation in stock market, building trust in the whole financial system is seen necessary, specifically, the trust ranges from financial auditing firms to regulator. Moreover, the financial system

should have a mechanism to protect investors, who lose from being cheating. However, the trust may not enough, unless the investors perceive that investment in stock market is a good investment or opportunity, additionally simplifying the trading procedure is seen to be necessary as well. Whereas financial literacy may not be important, because most of participants in the survey were master degree in finance. At the same time, financial information and application literacy may not be obstacle for them to make investment decision.

5.3 Future Research

The purpose of the research is to investigate factors contributed to the limited stock market participation by using the extension of the Theory of Planned Behavior of Ajzen (1991), and Intention as dependent variable. Future research may extend Intention to Behavior, adding more variables like gender, income level, and classification trust level by age and other variables as well. Additionally, due to the time was very limited, the sample size was only student or working adults, rather small, future studies may extend larger sample, and more diversity. At the meantime, the technical analyses employed in current study was multiple regression with summated scale without conducting confirmatory factor analysis (CFA), future studies may use CFA process and structural equation modelling (SEM), which is a powerful technique frequently used by most researchers in the world.

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DETERMINANTS OF TOURISTS' LOYALTY ON VISITING PHNOM PENH, CAMBODIA

IM Sophat[1], Dr. TAN Saroeun[2], and Dr. SOUN Hong[3]

ABSTRACT

The purpose of this study is to determine what factors affect travelers' decisions and loyalty to Phnom Penh as a travel destination. The study focusses on aspects such as the city's high crime rate (62.18% in 2018), which has increased by 73.08% in the previous three years. This problem is exacerbated by elements including perceived risk, brand knowledge, and E-WOM. Destination brand knowledge is the dependent variable, while electronic word-of-mouth and destination brand knowledge are the independent variables, according to the literature. Furthermore, it has been established that tourists' loyalty is a dependent variable and perceived risk is a mediating variable. The model uses non-probability sampling to collect data from 384 respondents utilizing a correlational research design and quantitative research approach. Additionally, SPSS version 27 is performed for the statistical analysis tools approach. The study examines the relationship between perceived risk, electronic word-of-mouth (E-WOM), destination brand knowledge, and tourists' loyalty in Phnom Penh, Cambodia, based on statistical results. It was discovered that there was a favorable relationship between E-WOM and destination brand knowledge, which affected tourists' choices and loyalty. It also showed a negative correlation between tourists' loyalty and perceived risk, pointing to tactics for enhancing trust and reducing risk. Policymakers and stakeholders in the tourism industry can use the findings to promote sustainable tourism growth and improve Phnom Penh, Cambodia's competitiveness as a destination.

Keywords: *Tourist's loyalty, Destination brand knowledge, Perceived risk, e-WOM*

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1. INTRODUCTION

The tourist sector is a crucial sector in contemporary society, exhibiting significant growth rates and exerting a substantial influence on the sustainable economic development of multiple countries. It arises as a result of population growth, urbanization, industrialization, and technical improvements, which promote social and economic progression as well as higher disposable money, longer leisure times, and an increase in the number of tourist attractions. The Asia-Pacific area, especially Southeast Asia, is witnessing significant expansion in the growing global interest in tourism. A total of 1,464.3 million foreign visitors arrived in the world in 2019, with 3.8 million more arriving in Southeast Asia than in the year before. The private sector in Cambodia has flourished, especially in the areas of lodging, travel, and tour guides, as the Royal Government of Cambodia envisioning the country as a premier tourist destination. Tourism contributed 12.1% to Cambodia's GDP in 2019, supporting over 2.2 million jobs. Key attractions drawing tourists to Cambodia include its rich cultural heritage, stunning natural landscapes, and ongoing efforts to enhance tourism infrastructure. With 17.2 million people, Cambodia is a prominent country in Southeast Asia that is well-known for its economic dynamism. 6,610,592 foreign visitors were welcomed into the nation in 2019, a 6.6% rise from the year before. According to World Tourism Travel Council (2020) projections, Cambodia is expected to receive 8,037,000 foreign visitors by 2027, which will generate 3,389,000 jobs, or 33 percent of the country's total employment. It is anticipated that this growth trajectory will result in spending of almost USD 7 billion. Due to its rich cultural history, a wide variety of man-made and natural sites, recreational activities, shopping malls, and other tourist amenities, the capital city of Phnom Penh is a highly sought-after travel destination for both local and foreign travelers. Nevertheless, safety worries are still present in 2018; the average crime rate is 62.18%, having increased by 73.08% in the previous three years. expressing concerns about what influences travelers' decisions to visit and their fidelity to the destination, especially in Phnom Penh. To counter this, a thorough investigation into how brand awareness, perceived risk, and electronic word-of-mouth (E-WOM) interact to influence travelers' decisions and fidelity to Phnom Penh as a travel destination has been conducted. The capital city Phnom Penh is a highly sought-after destination for both domestic and international tourists due to its rich cultural heritage, diverse natural and man-made attractions, recreational facilities, shopping opportunities, and tourist amenities. However, in 2018 the safety concerns persist, the average crime rate stands at 62.18%, with a 73.08% increase over the past three years. particularly in Phnom Penh, raising questions about factors influencing tourists' decisions to visit the destination and their loyalty to the destination. To challenge this, a comprehensive study examining the interplay between factors such as electronic word of mouth (E-WOM), brand knowledge, and perceived risk contributes to tourists' decisions and loyalty to visit Phnom Penh, Cambodia as a tourism destination.

2. LITERATURE REVIEW

2.1 Tourism Industry in Cambodia

Cambodia's tourism sector has seen significant growth, with international tourism earnings reaching $1.41 billion in 2022, and domestic travelers contributing $650 million. This accounted for 3.6% of the country's GDP.

In 2022, international tourists reached 2.28 million, a 1058.6% increase from the previous year. National tourism also saw a surge, with 13.93 million domestic tourists recorded. The tourism industry has become a key driver of job creation, providing employment opportunities for around 320,000 individuals. The Ministry of Tourism anticipates welcoming approximately 4.5 million international tourists and 16 million domestic tourists in 2023. Tourism Minister Thong Khon expects a surpassing of pre-Covid-19 tourist numbers by 2025. The Asian Development Bank and World Bank forecast an acceleration in Cambodia's growth trajectory due to ongoing tourism recovery. Chinese tourist arrivals have shown signs of recovery following the country's reopening.

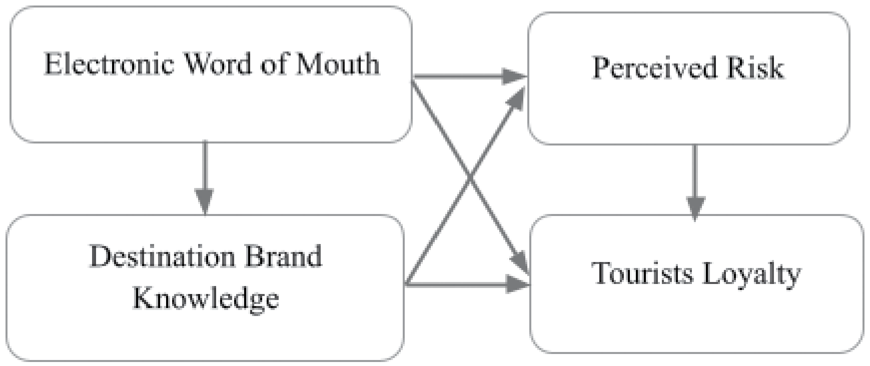
2.2 Tourist Destinations and Plants in Phnom Penh

In addition to the previously mentioned attractions, Phnom Penh hosts several other significant tourist sites and landmarks. The Tuol Sleng Genocide Museum, once a school transformed into a prison during the Khmer Rouge era, provides a poignant insight into Cambodia's tumultuous history. Likewise, the Killing Fields of Choeung Ek, situated on the outskirts of the city, stand as a poignant memorial to the victims of the Khmer Rouge regime's atrocities. Furthermore, the Independence Monument and the lively Riverside Promenade are favored destinations for sightseeing and leisurely walks.

2.3 Factors Influencing Tourists' Loyalty to Revisit.

Destination loyalty involves tourists' commitment to continue patronizing or visiting a destination in the future, as well as recommending it to other potential travelers (Hurriyati, 2015). To ensure tourists remain loyal to destinations, it is imperative to offer excellent and dependable services that encourage repeat visits, even in the face of potential situational influences or marketing endeavors that may alter individuals' behavior (Rizal, Rachma, & Priyono, 2019). Tourist loyalty holds critical importance for destination stakeholders within the tourism sector, influencing tourists' repeat visitation behaviors, positive word-of-mouth referrals, and overall destination image (Zhou, 2018).

Figure 1: Conceptual Framework



2.3.1 Electronic Word of Mouth (E-WOM) and Destination Brand Knowledge (DBK).

E-WOM, according to Cheung & Thadani (2012), is the sharing of ideas, advice, and firsthand accounts on travel destinations using digital platforms such as blogs, forums, social networking sites, and online review sites. Furthermore, this phenomenon is essential for creating and disseminating knowledge about the destination, encouraging participation, and enabling communication between visitors and stakeholders (Hudson et al., 2016). According to Hudson et al. (2016), E-WOM is a strategic tool that destination management organizations

and tourism businesses use to build relationships with travelers, encourage brand advocacy, and enhance destination brand understanding.

H1: Electronic word of mouth (E-WOM) has a positive impact on destination brand knowledge (DBK).

2.3.2 Electronic Word of Mouth (E-WOM) and Perceived Risk (PR)

Electronic Word of Mouth (E-WOM) has been shown by Praharjo and Kusumawati (2016) to have a substantial impact on customers' perceptions of risk, especially in the travel and tourism sector. E-WOM can reduce perceived risk by disseminating knowledge, comfort, and social validation via digital channels like social media. Customers' perception of danger with relation to their desired destinations is significantly reduced by electronic word-of-mouth (e-WOM). By obtaining reliable information about the goods, they intend to buy, consumers can reduce the risk associated with online transactions (Zhang & Hou, 2017). Additionally, customers who post unpleasant experiences or cautions online help others make better selections by broadening our understanding of the risks involved. In this way, visitors rely more heavily on E-WOM to reduce perceived risk and uncertainty, which influences their choices and plans for making reservations (Tsao et al., 2015; Tsao et al., 2015; Hussain et al., 2017).

H2: Electronic word of mouth (E-WOM) has a positive impact on perceived risk (PR).

2.3.3 Electronic Word of Mouth (E-WOM) and Tourist Loyalty (TL)

Travelers engage with like-minded people and join an online travel community by exchanging experiences, advice, and recommendations on digital platforms, which increases advocacy and loyalty. Young people are willing to participate in the E-WOM context when it comes to online communication, and they like to read and write comments and evaluations on websites, which supports the significant online influence of this demographic (Yan et al., 2018). Furthermore, E-WOM has a significant impact on how travelers perceive a place by influencing its reputation and image (Xiang et al., 2017; Kanwel et al., 2019). E-WOM has impacted consumer behavior more and more, according to Hu & Kim (2018), particularly among Generation Y.

H3: Electronic word of mouth (E-WOM) has a positive impact on tourist loyalty (TL)

2.3.4 Destination Brand Knowledge (DBK) and Perceived Risk (PR)

Destination Brand Knowledge (DBK) is the understanding and familiarity that travelers have with a destination's brand. It includes important aspects like brand awareness, brand image, and brand experiences, all of which have an impact on how tourists perceive perceived risk in a variety of contexts, most notably the tourism sector. Citing Buhalis & Foerste (2015), it was highlighted that integrated marketing communication methods are critical in forming brand perceptions and mitigating perceived risk, which in turn increases tourist trust and credibility (Litvin et al., 2018). By employing consistent messaging across a variety of platforms, including public relations, social media, and advertising, destination marketers can improve brand awareness and image. Communication that is in line with visitor preferences helps foster trust and lower perceived danger. Positive reviews and recommendations can verify perceived risk, whereas negative brand image can deter travelers (Gretzel et al., 2015).

Additionally, Choi et al. (2023) discovered that travelers who possess thorough destination brand experiences typically perceive reduced levels of danger while considering a trip. According to earlier studies, visitor happiness and destination loyalty are positively correlated with unique travel experiences (Azis et al., 2020).

H4: Destination brand knowledge (DBK) has a positive impact on perceived risk (PR)

2.3.5 Destination Brand Knowledge (DBK) and Tourist Loyalty (TL)

Positive brand associations such as safety, authenticity, and uniqueness cultivate emotional bonds with the destination, nurturing long-term loyalty. A favorable brand image influences tourists' perceptions of value and satisfaction, fostering repeated visitation and advocacy (Su et al., 2017; Zhang et al., 2014). Not far from the above concepts Wisker et al., (2023) highlighted that consumers are inclined to favor a brand aligned with their self-perceived identities. The congruence between consumers' self-images and the functional aspects they associate with a brand contributes to bolstering destination brand loyalty. The cognitive assessments of image and risk perceptions usually refer to the knowledge on a destination and are normally evaluated based on characteristics (Shim and You, 2015). Additionally, brand image mirrors the positive attributes of a travel destination, although perceived risk will typically focus on its drawbacks (Chew and Jahari, 2014). Moreover, a few dangers might be more notable than others in a given objective, and awareness of the risk may deter tourist from making a trip to that destination, hindering visitors’ arrivals (Law, 2006, Fuchs, 2013). Furthermore, the tourism experience is also defenseless against the effects of a broad range of frequent and man-made risk events, such as infectious diseases, natural catastrophes, problems with language and culture, criminal activity, and terrorist strikes (Reisinger and Mavondo, 2005).

H5: Destination brand knowledge (DBK) has a positive impact on tourist loyalty (TL)

2.3.6 Perceived Risk (PR) and Tourist Loyalty (TL)

Psychological risk, as defined by McLeay et al. (2018), encompasses feelings of anxiety or discomfort stemming from anticipated post-behavioral emotions like worry and tension, which can decrease tourist loyalty toward a destination. High crime rates, political instability, or natural disasters can foster negative safety perceptions, resulting in decreased TL and potential reputational harm. Unexpectedly perceived risk can elevate the likelihood of negative evaluations and decrease loyalty toward the destination (Sohn et al., 2016). Moreover, managing perceived risks effectively can foster a positive feedback loop wherein satisfied and loyal tourists advocate for the destination or brand (Han et al., 2018).

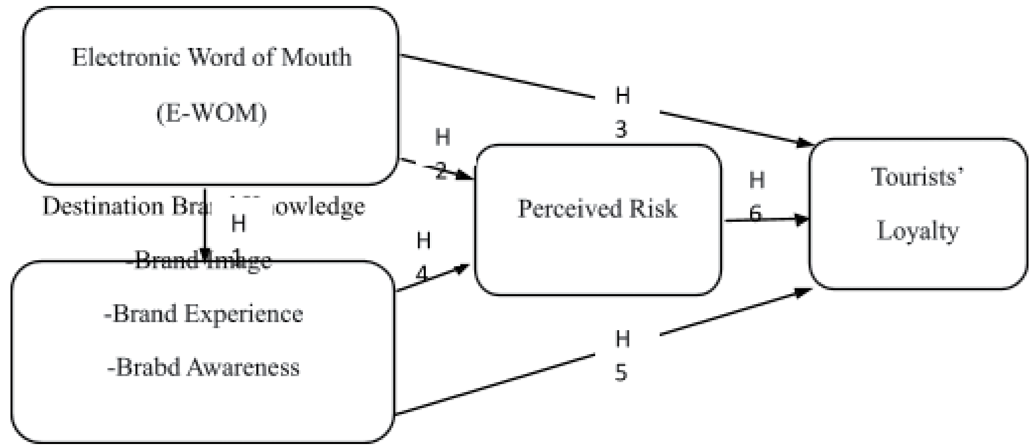
H6: Perceived risk (PR) has a negative impact on tourist loyalty (TL)

Simultaneously, in Cambodia, perceived risk may negatively influence loyalty across various sectors, including the tourism industry. Addressing risk perceptions and implementing strategies to mitigate risk factors are critical for destination stakeholders to cultivate long-term loyalty and satisfaction among visitors. Consequently, the following hypothesis is posited:

2.3.7 Conceptual Framework Proposed

Bases on the literature, the electronic word of mouth and the destination brand knowledge have been considered as the independent variable, while the destination brand knowledge has been examined as dependent variable. Further, the perceived risk has been taken as mediating variables, and tourists' loyalty has been regarded as dependent variable. In the case, the following figure is showed below:

Figure 2: Hypothesis Development



3. RESEARCH METHODOLOGY

3.1 Sampling and Sample Frame

With the use of 384 samples (the Cochran formula for an unknown population) chosen through non-probability sampling, the current study examines the variables influencing tourists' decisions to return to Phnom Penh, Cambodia. The sample includes travelers under 20 years old who have been to the city for at least three months. When the population size is unknown and indivisible, non-probability sampling is used; methods such as convenience, purposive, and snowball sampling were used. Convenience sampling entails approaching foreign visitors at different locations and is dependent on the researcher's accessibility. Snowball sampling is used to pick a sample based on referrals within a network, whereas purposeful sampling is chosen to provide the most pertinent information for the study. Snowball sampling was used to distribute questionnaire surveys to individuals who have visited Phnom Penh, Cambodia, with referrals from acquaintances to expand the respondent pool.

3.2 Research Instrument

This study collected primary data from domestic and foreign tourists through direct personal interviews and a structured questionnaire. The questionnaire included questions about respondents' profiles, such as gender, age, occupation, income, and nationality. The hypothesis development aimed to determine the effects of destination advertisement (E-WOM) on brand knowledge such as brand image, experience, and awareness. The study also sought to understand the impact of advertisement groups and destination brands on tourist loyalty. The questionnaire was pre-tested and modified before finalization. Secondary sources were collected in a structured format. The research instruments used included normal scales, such as age, gender, occupation, education, and monthly income, and a Likert scale (1=Strongly disagree, 2=Disagree, 3=Undecide, 4=Agree, 5=Strongly agree) to measure for hypothesis development.

Table 1: Exploratory Factor Analysis and Reliability Test

	Factor Analysis					
Code	Descriptive	FL ≥60	KMO ≥50%	Eig> 1	Cum >60 %	α ≥ 60
Electric Word of Mouth						
EW7	Through the internet, I get the information Phnom Penh city that Phnom Penh city is the right choice.	.816	0.68**	2.65	0.614	0.78
EW11	Through the internet, I know that Phnom Penh visitors help other travelers know Phnom Penh City, Cambodia	.811				
EW10	I'm interacting on social media for information about Phnom Penh city.	.755				
EW6	The E-WOM recommends Phnom Penh, Cambodia destination to my relative and close friends.	.751				
Perceived Risk						
PER5	A terrorist attack that can destroy your personal properties and lives may happen unexpectedly.	.876	0.88**	3.96	0.661	0.89

PER3	Unexpected natural disasters, such as floods, landslides, Storms, etc. may happen.	.859				

PER6	The unexpected political restrictions may limit the places you are visiting and traveling.	.797				
PER7	The unfriendliness of Cambodian people may happen to you regarding the different cultures and social beliefs.	.786				
PER4	Unexpected crimes may happen while visiting Phnom Penh city.	.784				
PER2	Diseases, such as SARS, Bird Flu, Covid 19, etc. may happen to affect your health during visiting Phnom Penh city.	.771				
Destination Brand Knowledge						
Destination Brand Image						
BI4	Phnom Penh city offers a variety of outdoor activities.	.846	0.67**	1.96	0.655	0.85
BI6	Phnom Penh city offers good quality tourist information.	.807				
BI17	Phnom Penh city is a safe place to visit.	.774				

Destination Brand Experience						
BE10	I engage in a lot of thinking when I am in Phnom Penh city.	.869	0.64**	1.97	0.658	0.73
BE11	Phnom Penh city does not make me meditate.	.841				
BE8	Phnom Penh city gives me bodily experiences.	.717				
Destination Brand Awareness						
BA3	I can recognize Phnom Penh city among similar.	.809	0.68**	1.93	0.645	0.72
BA4	Some characteristics of Phnom Penh city come to my mind quickly.	.808				
BA2	I am aware of Phnom Penh city as a travel destination.	.793				
Tourists' Loyalty						
TLO 6	You always have good memory and experiences for surely revisiting Phnom Penh now and then.	.859	0.84**	3.27	0.647	0.86
TLO 5	You always recommend other people to visit Phnom Penh city.	.830				
TLO 4	You plan to visit Phnom Penh city again in near the future.	.825				
TLO 7	Good memory of visiting Phnom Penh makes you decide to come back again.	.752				
TLO 3	You often visit Phnom Penh city regarding its attractive differences from other cities.	.751				

3.3 Data Analysis

A vital tool for analyzing the variable structure in a study is factor analysis (Hair, Black, Babin, and Anderson, 2019). To provide dependable results, an exploratory technique was employed in this study to find inconsistencies and improve the dataset. The dependability of the research variables was evaluated using a reliability test. The suitability of the sample for factor analysis was evaluated using the Kaiser-Meyer-Olkin (KMO) test. A factor loading score of 0.6 or higher, a cumulative percentage of variance explained exceeding 60%, eigenvalues exceeding 1, inter-total correlation values of 0.5 or higher, and a Cronbach alpha (α) value greater than or equal to 0.6 are the recommended specifications for factor analysis and reliability tests, as stated by Hair et al. (2014).

4. DISCUSSION OF FINDINGS

4.1 Personal Profiles Analysis

The data shows that 12.12% of males and 9.13% of females are over 50, while 27.27% of males and 14.16% of females are in the 40-49 age bracket. The majority of respondents have Bachelor's degrees, with 23.96% having Master's degrees. The majority of respondents are businessmen, government officers, and employed in private organizations. The geographic diversity of the respondents is significant, with the largest proportion hailing from ASEAN at 35.94%. European respondents constitute 28.91%, while Chinese respondents accounted for 10.42%.

Table 2: Personal Profiles

Demographic	Category (384)	Frequency	Percent
Gender	Male	165	43.0
	Female	219	57.0
	Total	**384**	**100.0**
Ages	Under 20	5	1.3
	20-29	136	35.4
	30-39	127	33.1
	40-49	76	19.8
	Over 50	40	10.4
	Total	**384**	**100.0**
Education	High School	42	10.9
	Bachelor	236	61.5
	Master	93	24.2
	Doctoral	13	3.4
	Total	**384**	**100.0**
Occupation	Student	15	3.9
	Government officer	74	19.3
	Private Org	49	12.8
	NGOs	28	7.3
	Businessman	170	44.3
	Farmer	4	1.0
	Retirement Or Pension	29	7.6
	Wife house	8	2.1
	other	7	1.8
	Total	**384**	**100.0**
Nationality	Asean	146	38.0
	Asian	25	6.5
	Chinese	39	10.2

	Korea	10	2.6
	USA	23	6.0
	Japanese	3	.8
	Australia	21	5.5
	New Zealand	8	2.1
	European	109	28.4
	Total	**384**	**100.0**

4.2 Regression Analysis

4.2.1 First sub-model

Referring to the conceptual framework, the regression equation model is divided in two stages. First, the simple regression to investigate electronic word-of-mouth (E-WOM) has been considered as independent variable, while destination brand knowledge, perceived risk, and tourists' loyalty has been taken as dependent variables.

Figure 2.1: Model I Simple regression

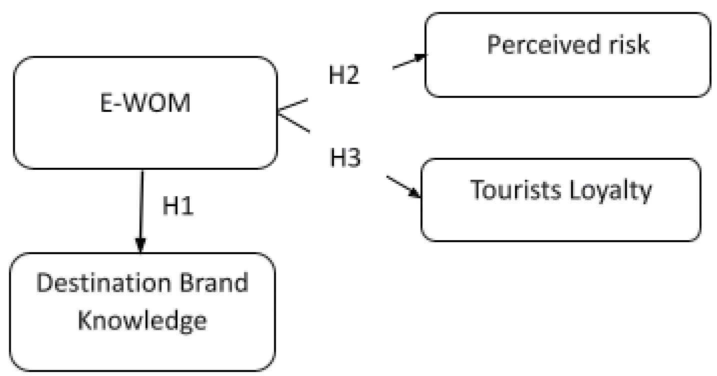


Table 3: Result of Simple regression

Variables	R^2	Adj.R^2	ANOVA	β	t-value	P-value
EWM-DBK	0.321	0.320	180.89***	0.59	13.45	<0.01
EWM-PER	0.146	0.144	65.54***	0.59	13.45	<0.01
EWM-TLOY	0.207	0.205	99.56***	0.55	9.97	<0.01

The symbol (*) indicates rejection of null hypothesis at 10%, (**) indicates rejection hypothesis at 5% and (***) indicates rejection of null hypothesis at the 1% level.

H1: Electronic Word of Mouth and D. brand knowledge (EWM-DBK)

The study reveals that electronic word of mouth significantly influences destination brand image in Phnom Penh, Cambodia. The regression coefficient for destination brand image is 0.54, with a significance level of less than 1%. The dependent variables, destination brand knowledge, were also significantly influenced by electronic word of mouth. Therefore, the null hypothesis "H1: electronic word of mouth has a positive significant impact on destination brand knowledge" is accepted, indicating that electronic word of mouth significantly influences destination brand image. as evidenced by prior studies (Anubha and Shome, 2021; Aprilia and Kusuma Wati, 2021; Gretzel et al., 2015; Hudson et al., 2016; Wang et al., 2015; Xiang et al., 2017).

H2: Electronic Word of Mouth and Perceived risk (EWM-PER)

The statistical analysis revealed that electronic word-of-mouth significantly influences perceived risk, with a regression coefficient of 0.59 and t and p values of 13.45 and 0.000, respectively. This indicates that electronic word-of-mouth has a positive significant impact on the dependent variable, thereby accepting the hypothesis "H2: electronic word-of-mouth has a positive significant impact on perceived risk"., To aligning with prior research (Hu & Kim, 2018; Hussain et al., 2017; Lim, 2016; Luo & Zhong, 2015; Praharjo and Kusumawati, 2016; Tsao et al., 2015; Zhang and Hou, 2017).

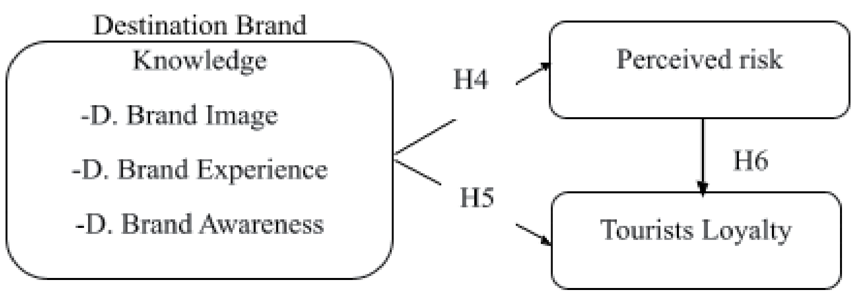
H3: Electronic Word of Mouth and Tourists' loyalty (EWM-LOY)

The study found that electronic word-of-mouth significantly impacts tourists' loyalty in Phnom Penh, Cambodia. The regression coefficients showed a 0.55 coefficient for tourists' loyalty, with a significance level of less than 1%. The hypothesis "H3: electronic word-of-mouth has a positive significant impact on tourists' loyalty" is accepted, indicating that electronic word-of-mouth significantly influences tourists' loyalty in the area, as evidenced by previous studies (Xiang et al., 2017; Kanwel et al., 2019; Hu & Kim, 2018; Buhalis et al., 2020).

4.2.2 Second sub-model.

The second sub-model of the multiple regression, the destination brand knowledge, such as destination brand image, brand experience and destination brand awareness have been considered as independent variables, while the perceived risk and tourists' loyalty has been taken as dependent variable.

Figure 2.2: Model II Multiple Regression



H4: Destination brank knowledge and perceived risk (DBK-PER)

Table 4: Result of Weight Arithmetic Mean and Correlation Matrix

Variables	Mean	SD	PER	BIM	BEX	BAW
Perceived risk	3.2018	.99767	1	.264**	.415**	.277**
Destination brand image	3.5712	.90777		1	.585**	.579**
Destination brand experience	3.3767	.88659			1	.527**
Destination brand awareness	3.6155	.81364				1

*1.Strongly disagree, 2. Disagree, 3. Fairly Agree, 4. Agree, 5. Strongly Agress. and **. Correlation is significant at the 0.01 level (2-tailed).*

With reference to Table 4's weighted arithmetic mean result, the item scales tended from "Agree to Fairly agree" level. With the exception of perceived risk and destination brand experience, which tended to fairly agree and have a standard deviation of less than 1, the destination brand image and brand awareness tended to level of accord. Additionally, the correlation matrix's results are applied to all variables discovered throughout the formal factor analysis and reliability test phases. All of the variables have a significant relationship, according to the results.

Table 5: Result of Multiple regression (DBK-PER)

Dependent Variable	$R=0.429$	$F=27.19$
Perceived Risk	$R^2 = 0.177$ Adjust $R^2 = 0.170$	Sig.=0.000

Independent Variable	Regression Coefficient	t-value	P-value	Collinearity	
				Tolerance	VIF
Brand Image	-0.001	-0.011	.991	.556	1.798
Brand Experience	0.419	6.222	.000	.604	1.655
Brand Awareness	0.099	1.358	.175	.611	1.637

The regression model shows a significant relationship between electronic word of mouth and brand experience, with a significant R square of 0.177 (17.70%). The Adjust R square is good, indicating the IVs and DV have common arranged the model of 17%, showing the generalization of the results (Adjust $R^2 > 0.10\%$). The F value is 28.50, indicating that the outcome of the predictors is related to population scores, indicating that the independent variable has jointly influenced the dependent variable.

H4a: The destination brand image and perceived risk (DBI-PER)

The regression results in Table 5-6 show that the destination brand image had no significant impact on perceived risk in Phnom Penh, Cambodia. The coefficients for perceived risk were -0.001, and t and p-value of -0.011 and 0.991 indicating that the destination brand image did not significantly influence the dependent variable because the level of significance was over 5%. It confirmed that the hypothesis (H4a) that the destination brand image had a positive significant impact on perceived risk is rejected. In other word, it is concluded that the destination brand image had insignificant impact on perceived risk in the area, Phnom Penh, Cambodia.

H4b: The destination brand experience and perceived risk (DBE-PER)

The regression results show that the destination brand experience has a significant impact on perceived risk in Phnom Penh, Cambodia. The coefficients of perceived risk are 0.419, with t and p-value of 6.22 and 0.000, a significance level of less than 1%. Therefore, the hypothesis H4(b): "Destination brand experience has a positive significant impact on the perceived risk" is accepted, indicating that the destination brand experience significantly influences perceived risk in the area, Phnom Penh city.

H4c: The destination brand awareness and perceived risk (DBA-PER)

The regression results show that destination brand awareness has no significant impact on perceived risk in Phnom Penh, Cambodia. The coefficients for perceived risk are 0.099, with t and p-value of indicating that destination brand awareness has no significantly influence the dependent variable. The level of 1.358 and 0.175, over 5% (insignificance), confirming the hypothesis (H4c): "destination brand awareness has a positive significant impact on perceived risk." is rejected. In other word, destination brand awareness does not significantly influence on perceived risk in the tourism destination, Phnom Penh capital. Thus, the H4 (H4(a), H4(b), and H4(c)): Destination Brand Knowledge inversely impacts perceived risk in tourism. tourists become familiar with a destination's brand; their perception of associated risks decreases. a finding consistent with previous research in tourism (Buhalis & Foerste, 2015; Choi et al., 2023;

Gretzel et al., 2015; Litvin et al., 2018; Loureiro & Kastenholz, 2011; Wang et al., 2012).

H5: The Destination brand knowledge and tourists' loyalty to visit Phnom Penh, Cambodia

Table 6: Result of Weighted Arithmetic Mean and Correlation Matrix

Variables	Mean	SD	TLO	BIM	BEX	BAW
Tourists' Loyalty	3.6542	.84630	1	.529**	.485**	.572**
Destination brand image	3.5712	.90777		1	.585**	.579**
Destination brand experience	3.3767	.88659			1	.527**
Destination brand awareness	3.6155	.81364				1

*1.Strongly disagree, 2. Disagree, 3. Fairly Agree, 4. Agree, 5. Strongly Agress. Further, the symbol of **. Correlation is significant at the 0.01 level (2-tailed).*

With regard to the weighted arithmetic mean result showed (in table 5) that the tendency of the scale has from "Agree to Fairly agree" level. Tourists 'loyalty, destination brand image and destination brand awareness tended to "agree" level, except destination brand experience tended to "fairly agree" level, and SD is less than 1. Further, the current study presents the correlation matrix findings, which include all variables identified throughout the formal factor analysis and reliability test phases. All of the variables have a significant correlation, according to the results.

Table 7: Result of Multiple regression (DBK-TLO)

Dependent Variable Tourists' Loyalty	R=0.634 R^2 = 0.402 Adjust R^2 =0.393		F = 85.29 Sig.= 0.000		
Independent Variable	**Regression Coefficient**	**t-value**	**P-value**	**Collinearity**	
				Tolerance	VIF
Brand Image	.212	4.271	.000	.556	1.798
Brand Experience	.158	3.247	.001	.604	1.655
Brand Awareness	.367	6.962	.000	.611	1.637

The regression model reveals a significant relationship between destination brand knowledge and tourists' loyalty, with a 0.634 (63.40%) larger than 60%, indicating that the relationship between DBK and TOY is strong. The R square value of 0.402 (40.20%) indicates that the dependent variable is explained by the independent variables, with 40.20%, the remain account being (100% - 40.20%) an error term. The Adjust R square value of 0.559 is close to 0.555, indicating good generalization of results (Adjust R^2 > 0.10%). The F value of 85.29 (p-value < 0.01) indicates that the outcome of the predictors is related to the population score. In other word, the independent variables have jointly influenced the dependent variable.

H5a: The Destination Brand Image and Tourists' Loyalty (DBI-TLO)

The regression results show that the destination brand image did not significantly impact tourists' loyalty in Phnom Penh, Cambodia. The coefficients for tourists' loyalty were 0.530, the correspondent of the coefficient, t and p-value are t equal 4.271 and 0.000 with a significance level of less than 1%. Therefore, the hypothesis "H5(a): destination brand image has a positive significant impact on tourists' loyalty" is accepted, indicating that the destination brand image has a significant influence tourists' loyalty to revisit Phnom Penh.

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H5b: The Destination Brand Experience and Tourists' Loyalty (DBE-TLO)

The regression results show that the destination brand experience did not significantly impact tourists' loyalty to revisit Phnom Penh, Cambodia. The coefficients for tourists' loyalty were 0.137, the correspondent of regression coefficient, t and p-value is 3.247 and 0.001, less than 1% level of significance. Therefore, the hypothesis "H5(b): the destination brand experience has a positive significant impact on the tourists' loyalty" is accepted, indicating that the destination brand experience had a significant influence tourists' loyalty to revisit Phnom Penh, Cambodia.

H5c: The Destination Brand Awareness and Tourists' Loyalty (DBA-TLO)

The regression results show that destination brand awareness does not significantly impact tourists' loyalty in Phnom Penh, Cambodia. The coefficients for tourists' loyalty are .367, the correspondent of the regression coefficients of t and p-value is 6.962 and 0.000, less than 1% of the significant level. Therefore, the hypothesis "H5(c): destination brand awareness has a positive significant impact on tourists' loyalty" is accepted. In other word, it is concluded that destination brand awareness has a significant influence tourists' loyalty to visit Phnom Penh, Cambodia.

The study supports hypothesis Ho5 (Ho5a, Ho5b, Ho5c), indicating that destination brand knowledge positively influences tourist loyalty to revisit Phnom Penh. in line with various studies in the tourism sector (Azis et al., 2020; Hankinson, 2012; Hosany & Martin, 2012; Kim, 2018; Su et al., 2017; Wisker et al., 2023; Zhang et al., 2014).

H6: Perceived risk and Tourists' Loyalty (PER-TLO)

Table 8: Result of Simple regression (PER-TLO)

Variable	R^2	Adj.R^2	ANOVA	β	t-value	P-value
PER-TLOY	0.015	0.013	5.94**	-0.172	-2.84	0.005

The study found that perceived risk negative significantly impacts on tourists' loyalty to visit Phnom Penh, Cambodia. The regression coefficients of tourists' loyalty showed a -0.172, with the correspondent of t and p-value of -2.84 and 0.005, a significance level of less than 1%. The hypothesis "H6: Perceived risk has a positive significant impact on tourists' loyalty" was rejected, indicating that perceived risk has a negative significantly influences tourists' loyalty to revisit the area. In other word, perceived risk has not improved the tourists' loyalty to revisit Phnom Penh, Cambodia. Based on the previous research findings (Chen & Chen, 2010; Hall & Page, 2014; Han et al., 2018; Huang & Hsu, 2009; McLeay et al., 2018; Sharif Pours et al., 2014; Sohn et al., 2016).

2.2.3 Assumption Check

To make sure the present study didn't violate any regression assumptions before submitting the results to research science, the study tries to analyzing whether one or more predictor variables account for the dependent (criterion) variable is known as linear regression. There are three main assumptions in the regression such as linear, homoscedastic, normal, and multicollinearity.

Normality Check

The normal distribution graph (Figure 3) below illustrate that the data is in normally distributed as zero is the center of the graph and data is between -3 to +3. The graph has bell curve shaped which is good distributed of the data. Following by this graph below shows that, it can assumption that the approaches are normality distributed. In addition, the model of variables is good enough to run the multiple regression.

P-P Plot

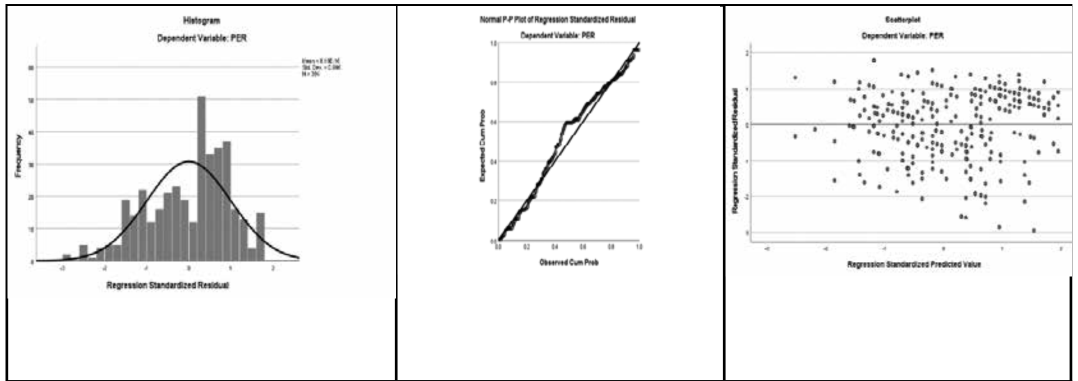
In the P-P plot of data revealed that it is a good normality as shown in (Figure 3) below, the little circles follow the normality line. It shows perfectively align of the data sample survey, which the data deviation is relatively. Base on this graph below shows that, it can assumption that the approaches are normality distributed. Furthermore, the model of variables is good enough to run the multiple regression.

Homoscedasticity check

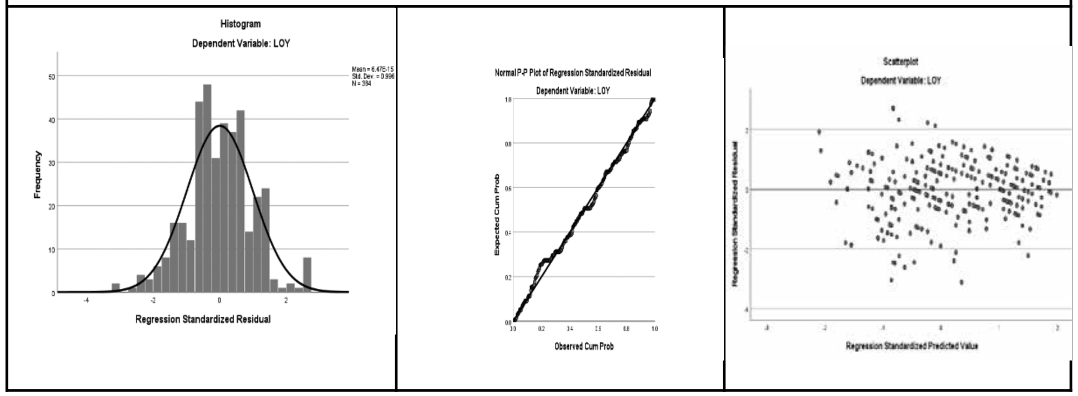
The result of homoscedastic data from the scatterplot in (Figure 3) below shows that the plots are close to the straight line which is from the ZRESID (Y axis of regression standardize residual) against ZPRED (X axis of regression standardize predict value). The data are well distributed close to zero on the X axis between -2 to +2, and on Y axis is also close to central of zero, in variance from -3 to +3. In short, the predicted variables are related to dependence variable.

Figure 3: Assumption result

Multiple regression (DBK – PER)



Multiple Regression (DBK-TLO)



Multicollinearity Check

The analysis of collinearity statistics shows the assumption has been met, as VIF (the variance inflation factor) scores were well below 5, and tolerance scores above 0.20. For the current study of the both multiple regression all the values of the independent variables' VIF < 5 and their tolerant >0.20 (See table 4 & 5).

Summary hypothesis

The hypothesis of the whole model results that the simple regression of Ho1, Ho2, Ho3 are significant (rejected), except Ho6 is negative significant. In addition, the hypothesis test of the multiple regression

Ho4b, Ho5a, Ho5b and Ho5c are significant (Rejected), while H4a, H4c are insignificant (accepted).

Table 9: Summary of Hypothesis test

Hypothesis		Significant	Interpretation
H1	E-WOM has no positive significant impact on destination brand knowledge.	13.45**	Supported
H2	E-WOM has no a positive significant impact on perceived risk.	4.14**	Supported
H3	E-WOM has no a positive significant impact on tourists' loyalty to visit Phnom Penh.	9.97**	Supported
H4	Destination Brand Knowledge and Perceived risk		
H4(a)	DBI has no a positive significant impact on perceived risk.	-0.011	Not supported
H4(b)	DBE has no a positive significant impact on perceived risk.	6.22**	Supported
H4(c)	DBA has no a positive significant impact on perceived risk.	0.17	Not supported
Ho5	Destination brand knowledge and Tourists' loyalty to visit Phnom Penh.		
H5(a)	DBI has no a positive significant impact on tourists' loyalty to visit Phnom Penh.	4.27**	Supported
H5(b)	DBE has no a positive significant impact on tourists' loyalty to visit Phnom Penh.	3.24**	Supported
H5(c)	DBA has no a positive significant impact on tourists' loyalty to visit Phnom Penh.	6.96**	Supported
H6	Perceived risk has no a positive significant impact on tourists' loyalty to visit Phnom Penh.	-2.84**	Not supported*

***denoted that p-value is significant at (0.01) 1 percent.*

**Result of regression coefficients has a negative sign and t, p-value is significant, otherwise the perceived risk (IV) has increased, tourists' loyalty (DV) has decreased.*

5. CONCLUSION AND IMPLICATIONS

5.1 Conclusion

In Phnom Penh, Cambodia, this study sought to investigate the relationship between Electronic Word of Mouth (E-WOM), Destination Brand Knowledge, Perceived Risk, and Tourist Loyalty. The study analyzed data from 384 samples using SPSS for both simple and multiple regression. The study's main goal was to identify tourist resources, with a particular emphasis on perceived risk, destination brand knowledge, and E-WOM as important factors. The study discovered a favorable relationship between E-WOM and destination expertise, which in turn affected travelers' choices and loyalty. The study also looked at the relationship between perceived risk and visitor loyalty; it discovered a negative association, which led to the development of risk-reduction and trust-building initiatives. By identifying factors impacting travelers' decisions and loyalty, the study made an indirect contribution to our understanding of the opportunities and problems facing Phnom Penh's tourism development. Techniques for reducing perceived dangers, enhancing safety perceptions, and building trust among travelers in order to promote loyalty were discussed. The study also looks closely at how tourists' loyalty is impacted by perceptions of risk, experience, and image of the location.

5.2 Implications and Recommendations

The study accepted (supported) hypothesis H1 by finding a positive association between Electronic Word-of-Mouth (E-WOM) and Destination Knowledge. E-WOM improves knowledge about areas, including Cambodia's tourist sites, improving visitors' experiences and

creating a sense of community that may increase tourist loyalty. The experiences of tourists are improved by this greater understanding. For the actual destination, positive online reviews about safety measures and infrastructure in Cambodia enhance tourists' perception of safety, reducing risk perception and increasing satisfaction and likelihood of future visits. This study supports hypothesis H2, which states that exposure to E-WOM mitigates perceived risks associated with traveling to Cambodia. The study refutes the hypothesis H3, suggesting a positive relationship between E-WOM and tourist loyalty, indicating that online reviews and social media recommendations do not singularly influence loyalty. It revealed that online reviews and recommendations do not solely influence loyalty. Personal experiences and connections with the destination are crucial for fostering lasting loyalty, beyond the influence of online reviews and recommendations. The study confirms that H4: Destination Brand Knowledge inversely impacts perceived risk in tourists. As tourists become familiar with a destination's brand, their perception of associated risks decreases. This enhances confidence in visiting a destination, contributes to satisfaction, and increases the likelihood of recommending it. The study supports (rejected) hypothesis H5, indicating that destination brand knowledge positively influences tourist loyalty. This knowledge leads to increased familiarity with Cambodia's brand, resulting in increased recommendations and repeat visits. This loyalty also boosts Cambodia's reputation as a tourist destination. Hypothesis H6 shows a negative correlation between perceived risk and tourists' loyalty to Cambodia. Thus, it suggested that increased risks may deter tourists from recommending the destination. This highlights the need for effective risk management strategies and destination branding to maintain loyalty. Policymakers, destination managers, and other stakeholders in Cambodia can benefit greatly from this study's insightful recommendations, which will help them create plans for sustainable tourism growth, destination competitiveness, and visitor loyalty.

5.3 Limitation and Future Research

There are limitations to the study on destination brand knowledge and electronic word-of-mouth (E-WOM) in Phnom Penh, Cambodia. It concentrates on a select group of variables, including sociocultural, environmental, and economic elements that affect tourism. The study lacks a thorough examination of issues related to tourism development, moderating factors, contextual subtleties, and the effect of media and destination image on visitor loyalty. Since the results are unique to Phnom Penh, more investigation is necessary.

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ECO-TOURISM DEVELOPMENT IN TONLE BATI TOURISM DESTINATION IN TAKEO PROVINCE, CAMBODIA

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ABSTRACT

One of the main forces behind economic development is tourism. Ecotourism, which is defined as responsible travel, seeks to promote socioeconomic development, cultural education, and environmental preservation. In order to investigate stakeholder perspectives of ecotourism development in the Tonle Bati destination, Takeo Province, Cambodia, this study uses a qualitative phenomenological technique. Twenty important stakeholders, including local vendors, tourists, government officials, and community leaders, participated in semi-structured interviews using purposive sampling. The six-step theme analysis framework was used to examine the data in order to pinpoint the main issues and prospects. The results show a stark contrast between Tonle Bati's high natural and historical potential—described as an "unprocessed diamond"—and its present ecological vulnerability as a result of environmental contamination and poor waste management. The report highlights important problems such as economic leakage to the private sector, a lack of hospitality skills among local merchants, and disjointed interdepartmental cooperation, even though ecotourism generates essential revenue through visiting fees. The study comes to the conclusion that improved community education and a participatory governance approach are necessary to achieve a "triple balance" between environmental, socio-cultural, and economic sustainability. These findings lay the groundwork for creating enduring policies that will guarantee the Tonle Bati community's long-term survival.

Keywords: *Tourism, Eco-tourism, Tonle Bati destination, Takeo Province, Cambodia*

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1. INTRODUCTION

Tourism is recognized as the largest industry in the world and serves as a major driver for global economic growth. It is a complex phenomenon encompassing social, cultural, and economic spheres, defined primarily as the movement of people to external locations for business, education, or pleasure (Hole, et al.2019; Amerta, et al.2018; Arintoki, et al.2020). Within the international sector, sustainable tourism is a rapidly expanding phenomenon. Community-based tourism (CBT) has emerged as a successful model for advancing this sustainability at the local level by preserving cultural heritage and promoting environmental conservation (Han, et al. 2019; Ellis, 2011).

Ecotourism is a specific type of responsible travel intended to educate travelers while raising funds for environmental conservation and the advancement of human rights. In developing nations, the primary goal of ecotourism is to raise the standard of living for rural populations. However, a significant challenge to successful implementation is the lack of education and awareness regarding sustainable practices (Akshay, & Nizar, 2022; Mvula, 2001; Scheyvens & Momsen, 2008).

In the Tonle Bati community of Takeo Province, Cambodia, the growth of ecotourism faces serious threats from uncontrolled growth, soil erosion into the lake, and water contamination from waste dumping. This study aims to examine the advantages and challenges of eco-tourism development in Tonle Bati to provide a foundation for long-lasting policies.

2. LITERATURE REVIEW

Tourism can facilitate significant economic development and poverty reduction by distributing socioeconomic advantages, such as steady employment and income-earning opportunities, to host communities (Asker et al., 2010; Ibnescu et al., 2018). Ecotourism also fosters an entrepreneurial spirit, allowing locals to generate income through the sale of handicrafts, food, and traditional performances (Akshay & Nizar, 2022; Wondirada & Ewnetu, 2019). Despite these benefits, a major concern is "economic leakage," where tourism enterprises are owned by external interests, preventing financial gains from supporting the local economy (Hameed & Khalid, 2018; Hussain, 2022).

Moreover, sustainable tourism preserves the living cultural history and traditional values of host communities while promoting intercultural understanding (Asker et al., 2010). Ecotourism acts as a tool for community revitalization by turning culturally significant attractions into sustainable consumer goods (Basak & Barman, 2023; Chatkaewnapanon & Lee, 2022). Involving environmental factor, ecotourism communicates a message about our relationship with nature (Hameed & Khalid, 2018). It is essential to maintain a balance between tourism growth and the natural environment to protect biodiversity and vital ecological processes (Deng & Chen, 2024). Success in ecotourism management often depends on the collaboration between local governments and residents to prevent environmental exploitation (Siregar et al., 2022).

So that sustainable development is built upon three guiding concepts: ecological, socio-cultural, and economic sustainability (Amerta, 2018). Achieving this requires the equitable use of natural and human resources

to ensure that the industry remains long-term and benefits future generations. Government and local authorities must reach an agreement to minimize pollution and protect the environment to ensure the enduring success of the community (Strydom et al., 2019).

3. RESEARCH METHOD

3.1 Research Design

This research was organized as a qualitative case study (Yin 2014). Eco-tourism is one of the tourism industry phenomena that is best investigated through a qualitative approach as opposed to depending just on quantitative indicators. This methodology allows for the identification of emerging themes and provides a rich, comprehensive narrative that honors the eco-tourism development environment while addressing the issues.

3.2 Research Setting and participants

This methodology will allow the study to determine the underlying causes and importance that the community attaches to their development by emphasizing the participants' perceptions and feelings. A popular tourist location in Takeo province, Cambodia, Tonle Bati, was selected for this study. The participants were selected using non-probability purposive sampling, taking organizational variables, roles, and gender into account. This non-probability approach comprises the deliberate selection of individuals who possess specialized knowledge or experience pertinent to the research issue. The following inclusion criteria will be used in the study: be a citizen of Cambodia and have some knowledge and experience in tourism development.

Table 1: Participants' profile

No	Code	Gender	Position
1	P1	M	Community member
2	P2	M	Village leader
3	P3	F	Village resident around Bati tourism community
4	P4	F	Village resident around Bati tourism community
5	P5	M	Public officer in ministry of tourism
6	P6	M	Monk stay around Bati tourism community
7	P7	M	Public officer in ministry of tourism
8	P8	M	Expert in eco-tourism
9	P9	F	Public officer in ministry of tourism
10	P10	M	Tourism students
11	P11	M	Community leader
12	P12	F	Seller
13	P13	F	Boat server
14	P14	F	Village resident around Bati tourism community
15	P15	M	Tourism Students
16	P16	M	Temple keeper
17	P17	F	Temple keeper
18	P18	F	Tourism teacher
19	P19	M	Sanitizer around temple
20	P20	F	Seller

3.3 Data Collection Method

In order to ensure participants' comfort and clarity, interviews are expected to last between sixty and seventy minutes. They will be logged, audio recorded, and accompanied by a consent form. Furthermore, the primary instrument for collecting data is the Semi-Structured Interview Guide. The following set of questions will serve as a guide for the in-person interviews. Participants are encouraged to give detailed, narrative responses because of their open-ended format. The introduction and demographic data are covered in the first section, while the tourism growth of Tonle Bati is the subject of the second.

3.4 Data Analysis

The data will be examined using thematic analysis, following the six steps. This methodical procedure includes the following: First, familiarizing yourself with the data: To thoroughly comprehend the content, read the transcripts multiple times. Next, create the initial codes: Third refers to the methodical process of identifying and categorizing interesting data bits that are relevant to the research questions: Fourth, classifying the codes into potential overarching themes and analyzing them: Creating a thematic map and assessing if the themes hold true for both the entire dataset and the coded extracts, fifth, specifying and labeling themes: continuous examination to improve the details of every theme and the narrative the analysis conveys as a whole, and last, putting together the report.

4. FINDINGS AND DISCUSSION

4.1 Demographic information of Participants

The study utilized a sample size of 20 participants. These individuals were selected through non-probability purposive sampling based on their specialized knowledge and experience in tourism development.

Table 2: Frequency and Percentage of Participant Demographics ($N=20$)

Variable	Category	Frequency (f)	Percentage (%)
Gender	Male (M)	11	55%
	Female (F)	9	45%
Stakeholder Role	Community & Residents	6	30%
	Academic (Students/Teachers)	4	20%
	Public Sector (Ministry/Officers)	3	15%
	Service Providers (Sellers/Boats)	3	15%
	Experts & Specialists	2	10%
	Site Staff (Temple/Sanitizer)	2	10%

Table 2 shows that there are 11 men (55%) and 9 females (45%) in the sample. This suggests a well balanced gender representation, enabling a range of viewpoints on the actual ecotourism experience in Tonle Bati. Residents and members of the local community make up the largest group of participants (n=6, 30%), which is crucial for examining the "community-based" feature of the tourism destination. Teachers and students make up a sizable chunk of the sample (n=4, 20%), while public servants and professionals make up another category (n=5, 25%). This gives the conclusions about governance and policy a technical and scholarly basis. 25% of the sample (n=5) consists of service providers (boat servers and sellers) and site workers (sanitizers and temple keepers), who provide firsthand knowledge of the hospitality gaps and day-to-day operational difficulties noted in the theme analysis.

4.2 Thematic Analysis of Eco-Tourism in Tonle Bati tourism destination

Theme 1: Environmental Vulnerability vs. Natural Potential

The destination's abundant natural resources and its current ecological state stand in stark contrast, according to the research. Tonle Bati's asset richness is characterized by a "diamond in the rough" potential, with a sizable natural lake and a variety of landscapes. However, there are serious problems with trash dumping along the lake, excessive plastic use, and insufficient waste management systems, and the environment is threatened by soil flowing into the lake reserve, river contamination, and uncontrolled tree planting by private companies. Additionally, there is a noticeable lack of education regarding environmental exploitation and a lack of planning to lessen the impact of tourism on natural landscapes.

Theme 2: Socio-Cultural Preservation and Hospitality Gaps

This theme examines the conflict between the lack of structured cultural promotion and the historical treasure that already exists. The 12th-century Taprum Temple and traditional pagodas, which are the main cultural attractions in the Tonle Bati area, are historical assets. However, locals are frequently excluded from the planning and decision-making processes for tourism projects. Another major issue is the lack of hospitality expertise among local vendors, particularly flower vendors, which degrades the visitor experience and meets a lack of effort to promote local arts, crafts, and performances, which are crucial for genuine cultural exchange.

Theme 3: Economic Leakage and Financial Constraints

Although tourism generates revenue for the area, the community cannot completely reap the benefits due to the current economic framework. In actuality, the community oversees vehicle and motorcycle gate fees but is unable to collect money from food vendors or boat operators. Additionally, private businesses occupy essential amenities like public restrooms, which causes economic leakage because visitor fees do not reach the communal budget. In the meanwhile, the destination's development is impeded by the government's lack of funding and the inability to obtain funds from private or non-profit organizations. Although eco-tourism opens up small-scale business options for food and beverage vendors, the absence of conference spaces or homestays restricts the expansion of the economy.

Theme 4: Ineffective Governance and Policy Implementation

The administrative obstacles to sustainable development are highlighted in the last theme. The commune, district, and tourism and cultural departments don't work well together. Because mass tourism receives more funding and governmental support than ecotourism, eco-tourism policies are frequently ignored. This study suggests that the destination needs a participatory governance plan to project a holistic and ethical image to tourists, and there is an acknowledged need for better procedures to assure visitor safety and security because present efforts are deemed insufficient.

Summary Table: Thematic Overview

Theme	Key Drivers	Primary Barriers
Environment	Natural Lake, Fresh Air	Plastic Pollution, Soil Erosion
Socio-Culture	Taprum Temple, Khmer Cuisine	Lack of Hospitality Skills
Economy	Ticket Fees, Local Selling	Private Sector Dominance, Revenue Leakage
Governance	Local Management Rights	Lack of Inter-departmental Coordination

4.3 Discussion

The development of eco-tourism in Tonle Bati is a multifaceted process that involves balancing community growth, environmental protection, and cultural preservation. While the destination possesses significant natural and historical wealth, the research identifies critical gaps in management and sustainability.

4.3.1 Potential of Tonle Bati Destination Resources

Tonle Bati is referred to as an "unprocessed diamond" and a "pioneer" tourist site. The 12th-century Taprum Temple, a sizable natural lake, and regional religious pagodas are among the natural and historical features that are considered the main draws. There is a culinary appeal to this appealing location. Unique Khmer dishes like grilled chicken with fresh palm juice and natural crab fat attract tourists. Furthermore, the yearly water festival and the existence of a brand-new, sizable airport nearby offer a solid basis for future expansion in the area of infrastructure. This is consistent with the findings of Chan and Marzuki (2021), who point out that the quality of eco-tourism depends on the authenticity of natural resources and the co-creation of stakeholder experiences.

4.3.2 Environmental Factors and Eco-Tourism

Despite its potential, Tonle Bati's environmental integrity is under danger due to waste and pollution. The study discovered that the disposal of trash into land and rivers, especially in the vicinity of the Taprum temples, causes excessive contamination. Additionally, there are gaps in community management, unclear land use and waste reduction planning, and a failure to restrict single-use plastics. On the other hand, there is the issue of water quality monitoring. Despite the lake's millions of meters of water, there are no safeguards in place to prevent tourism from contaminating this resource. As noted by Hussain (2022) and Deng and Chen (2024), tourism has both direct and indirect effects on the environment, requiring a balance between growth and ecological efficiency. In Tonle Bati, this balance is currently missing.

4.3.3 Socio-Cultural Factors and Eco-Tourism

Ecotourism relies heavily on cultural interaction, yet social integration is a problem in Tonle Bati. In actuality, the planning and decision-making processes for tourism projects do not adequately incorporate the local population. Additionally, we observed that local merchants had poor awareness of hospitality services and that flower sellers had competence gaps. In order to preserve cultural treasures, the commune and the Department of Culture and Art do not coordinate well. This is in line with the concerns raised by Asker et al. (2010), who stress that sustainable tourism needs to protect the host communities' traditional values and live cultural history.

4.3.4 Socio-Economic Factors and Eco-Tourism

For locals, economic empowerment is crucial, but financial "leakage" is still an issue. The community does not accept donations from booths, boat drivers, or waterfront merchants, but it does collect fees for vehicles (3,000 riel) and motorbikes (1,000 riel). Private businesses occupy essential facilities like public restrooms, depriving the community of valuable revenue. The lack of public transportation, conference facilities, and homestays restricts the destination's economic potential. According to Hameed and Khalid (2018), financial benefits frequently do not boost the local economy when businesses are run by outside interests. This is seen in Tonle Bati, where neither the government nor non-governmental organizations provide financial support to the community.

5. CONCLUSION AND IMPLICATIONS

5.1 Conclusion

The sustainable growth of ecotourism in the Tonle Bati destination is essential for the mutual benefit of the environment and the local business community. While the area possesses significant "unprocessed diamond" resources—including the 12th-century Taprum temple, a vast natural lake, and unique Khmer cuisine—the current state of development remains in its infancy. Findings indicate that existing attractions are not yet managed effectively to ensure long-term viability. This is largely due to a lack of need-based education, limited entrepreneurial aptitude, and a shortage of funding from the government and community initiatives.

Ultimately, the only viable solution for the Tonle Bati community and the broader Cambodian economy is a sustainable development strategy that strikes a "triple balance" between environmental preservation, socio-cultural protection, and economic viability. Ecotourism serves as the ideal answer for sustainable rural life as it generates industry and jobs with minimal investment by utilizing local natural assets.

5.2 Implications and Recommendations

The following policy and practice implications are noted in order to promote the ecotourism industry in Tonle Bati: In order to present a comprehensive picture of ethical responsibility, authorities should implement a participatory governance plan that incorporates non-governmental decision-making processes. Public authorities, business professionals, and nonprofit groups cannot engage in stakeholder collaboration to create policies targeted at enhancing the caliber of tourism services and providing incentives for marketing efforts. Additionally, the community should prioritize management and infrastructure: The discharge of sewage and wastewater into the lake ecology needs to be addressed immediately.

To reduce environmental effects, the community also needs to make land-use planning more clear. Authenticity should be improved for sustainable ecotourism development. The perception of authenticity is what drives tourists to return, thus managers must concentrate on preserving and restoring the original landscape and cultural items. However, local community education and training cannot be neglected. Local shopkeepers and flower vendors should participate in training programs to increase their understanding of hospitality and environmental consciousness.

5.3 Limitation

Every research effort has limitations that need to be recognized in order to put the results in perspective. This study's sample size and scope are among its drawbacks. Although the qualitative method yielded detailed accounts from 20 participants, the findings are unique to the Tonle Bati village in Takeo Province and might not apply to all Cambodian ecotourism destinations. To gather perspectives and real-world experiences, this study used theme analysis and qualitative interviews. It did not make use of quantitative indicators, such as accurate longitudinal ecological data on water contamination levels or statistical modeling of tourist expenditure.

Additionally, the data collection reflects a certain moment in time; nonetheless, seasonal variations and shifting government policy support might affect the Bati district's tourism trends and environmental conditions. Even though the researchers included a variety of groups, if they had been more widely represented in the sample, some private sector organizations—like the companies that manage restrooms and grow trees—might have offered different viewpoints.

5.4 Suggestions for Further Research

This work can be expanded upon in future research to produce a more thorough understanding of sustainable tourism in Cambodia. In order to quantify the "economic leakage" found in this study, future research should use quantitative techniques. Specifically, the precise ratio of revenue collected by the local community vs outside private interests should be calculated. In order to assess the efficacy of new conservation measures, a long-term research is required to track the ecological health of Tonle Bati Lake, concentrating on the effects of wastewater dumping and soil erosion over a number of years. comparative research. To find "best practices" that Takeo Province may use as a standard, researchers could compare Tonle Bati to other more well-known ecotourism areas in Cambodia, such Kampi or Trapaing Sangke. In order to determine whether education greatly enhances the visitor experience and site sustainability, future research might examine the effects of certain hospitality and environmental training programs on local vendors, such as flower merchants.

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FACTORS INFLUENCING STUDENT RETENTION IN THE FACULTY OF TOURISM AT THE NATIONAL UNIVERSITY OF MANAGEMENT (NUM) IN CAMBODIA

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ABSTRACT

This study investigates the factors influencing student retention within the Faculty of Tourism at the National University of Management (NUM), Cambodia. Utilizing a mixed-methods case study approach, data were collected via a closed-ended questionnaire from 232 tourism students, selected through non-probability purposive sampling. Multiple regression analysis was employed to determine the relationship between four key dimensions and student retention. The results indicate that academic performance, student support services, and socio-economic factors are positively and significantly correlated with retention ($R^2 = .638$, $p < .05$). Academic performance emerged as the strongest predictor. Conversely, social engagement did not show a statistically significant impact in this specific context. The study concludes that the faculty must prioritize enhanced academic resources, financial aid awareness, and robust support interventions to sustain high enrollment and graduation rates.

Keywords: *student retention, tourism education, National University of Management, Cambodia*

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1. INTRODUCTION

1.1 Background of the Study

In the contemporary era, postsecondary education has become a fundamental necessity as individuals seek to acquire new skills and expand their knowledge to meet evolving workforce requirements (Arhin & Laryea, 2020). Higher education institutions (HEIs) are under increasing pressure to improve retention and graduation rates for all undergraduate students (Breyfogle & Daubman, 2024). Student retention, defined as the continuation of a student's enrollment in an institution over an extended period, serves as a primary benchmark for institutional success (Costello, 2003).

Ensuring that students remain enrolled and successfully complete their programs is a global challenge for HEIs (Aljohani, 2016). Higher completion rates generally convey a more favorable impression of an institution’s financial, administrative, and academic standing. Consequently, increasing student retention is a priority for universities to ensure sustainability and support national human capital growth.

1.2 Problem Statement

Understanding the motivational orientations of students is essential for maintaining enrollment in tourism degrees (Buzinde et al., 2018). Research indicates that low motivation—often caused by time constraints and external obligations—is a primary factor in program dropout (Arhin & Laryea, 2020). At the National University of Management (NUM), several critical barriers have been identified such as socio-economic barriers that refers to students from low-income backgrounds frequently face difficulties finishing their studies due to the costs of tuition, accommodation, and travel (Tzafea & Sianou, 2018). And also cannot see the factor of instructional dissatisfaction that many students express a need for more innovative, technology-driven, and "learning-by-doing" approaches, such as study tours, rather than strictly traditional teaching methods. Meanwhile, one factor can not be pay an attention is vague expectations that it often occurs when institutions are not transparent about academic and personal expectations, leading to a lack of student persistence (Costello, 2003).

1.3 Research Questions

This research seeks to answer the following specific questions:

1. What are the dimensions and key factors influencing tourism student retention at the National University of Management?
2. How do academic performance and student support services impact retention rates?
3. What role do financial and socio-economic issues play in student persistence?

1.4 Research Objectives

The primary aim of this study is to identify the variables that influence tourism student retention to help improve institutional outcomes. The specific objectives are:

- To determine the influence of academic performance, socio-economic status, and support systems on retention.
- To explore the relationship between student engagement in extracurricular and community activities.
- To evaluate the effectiveness of institutional support services, such as counseling, tutoring, and career guidance.

- To investigate how financial constraints and family obligations impact students' decisions to remain in their studies.

2. LITERATURE REVIEW

One crucial indicator of student achievement, but not the only one, is retention. Student retention is the continuation of a student's enrollment in a school for a prolonged amount of time. There was no uniform definition of retention presented, and there are currently several conflicting interpretations in use, even in developed nations' higher education. According to Seery et al. (2021), student performance and retention rates have an impact on students, organizations, and the job market overall. Retention is essential for an institution to succeed in the long run. More information about a school's ability to produce graduates can be found in the percentage of retained students than in the total number of enrolled students. Academic achievement, institutional support, social support networks, and financial assistance can all have an impact on retention (Codallo, 2019).

Moreover, One of the main indicators of whether a student will continue to graduate is their academic achievement. Instructional resources must focus on improving both student satisfaction and the quality of education. For students to study more effectively, instructors, library materials, and audiovisual equipment must be readily available (Buliba, 2023; Buliba et al. 2023). Additionally, research by Qvortrup and Lykkegaard (2022) shows that the structure of the academic system affects how students interact intellectually with their instructors and classmates. This suggests that pedagogical integration plays a crucial role in supporting student retention. In the meantime, "learning-by-doing" in tourist education through field trips and internships enables students to match their academic coursework with the demands of the real world industry (El-Houshy, nd.). Additionally, as a way to promote academic success and a sense of belonging, which may have a bigger positive impact on students' social welfare, coordinated support services are crucial (Emekako and Westhuizen, 2021). Effective academic advising gives students the direction they need to manage challenging academic requirements (Seery et al., 2021), hence institutions must prioritize advisory services. Additionally, administrative quality must be mentioned in order to retain students: The level of student integration is influenced by the quality of institutional experiences, such as registration and the accessibility of student facilities (Mutsotso and Abenga, 2010 & Aljohani, 2016). In the meantime, Haverila et al. (2020) discovered that by providing support to lessen students' career indecision, institutions can enhance retention.

And the other hand, one of the most important factors influencing a student's decision to continue is their financial situation (Haverila et al. 2020; Muhtadin et al. 2023; Branson & Whitelaw, 2024). In fact, students from lower socioeconomic backgrounds are statistically more likely to drop out than those from higher-income backgrounds (www.upp-foundation.org). In the meantime, rising tuition, housing, and travel expenses frequently force students from low-income backgrounds to drop out of their programs (Kostell and Warrington, 2018), but universities prioritize financial aid programs from the outset to support students from economically disadvantaged families (Buliba et al. 2023; Whitelaw & Branson, 2024). Actually, Increasing student accomplishment and institutional engagement requires social engagement

and integration of students (Horm, 2011). Students' attachments to the school are strengthened via social networks and leisure pursuits like sports and cultural events, and involvement in student organizations improves retention (Sá, 2023: Seery, et al. 2021; Demetriou, & Sciborski (n.d)) but a lack of social and intellectual integration may cause kids to drop out of school early or not complete their course of study. It's crucial to remember that Tinto sees academic and social integration as distinct but connected ideas. This implies that when there is a clear deficiency in one area, failing in social or intellectual integration alone won't be enough for college success. Because children's reasons for dropping out of school are strongly correlated with their socioeconomic status, social injustices continue to exist (Tzafea & Sianou, 2018). Meanwhile, students who have pleasant connections with teachers and staff, receive support, and use learning strategies might develop new skills, improve their grades, and feel more satisfied with their educational experience (Isaeva, et al. 2023).

3. METHODOLOGY

3.1 Research Design and Sampling

This study employed a cross-sectional survey approach, collecting data from various respondents at a single point in time. The target population consisted of 536 students enrolled in the tourism program at the National University of Management (NUM) in Phnom Penh. A mixed-method approach was utilized, combining quantitative structured questions with qualitative unstructured questions. The researcher used non-probability purposive sampling and census sampling methods to select participants.

While 350 questionnaires were initially distributed, after data cleaning and verification, a final sample of 232 usable responses was analyzed.

For this study, the sample was determined using the Taro Yamane formula**.**

The formula is given below:

$$n = N / [1 + N(e)^2]$$

Where:

n – Sample Size

N – Population Estimate (536 regulars' users)

e – Margin of error (0.05)

n = 536 / [1 + 536(0.0025)] = 536 /2.34 = **229**

3.2 Instrumentation and Data Collection

Primary data were gathered via a self-administered Google Form questionnaire. The instrument utilized a five-point Likert scale, ranging from "1: Strongly Disagree" to "5: Strongly Agree". To ensure the validity of the results, the survey questions were developed based on an extensive literature review and were pre-tested before full implementation.

3.3 Data Analysis

The Statistical Package for the Social Sciences (SPSS 26) was used for data analysis. The researcher performed descriptive statistics (means, standard deviation, and frequencies) and multiple regression analysis to test the relationships between the variables. Reliability was confirmed

using Cronbach's Alpha, with all dimensions exceeding the 0.70 threshold, indicating high internal consistency.

4. FINDINGS AND DISCUSSION

4.1 Descriptive Statistical Analysis

Presenting the demographics of the survey participants could be beneficial. Respondent characteristics are shown in Table 1. The majority of respondents are female, with 150 (67.9%) more than male, with 75 (32.3%), according to the data acquired from the 232 sample divided by gender. Promotion 29 is 89 (38.4%), Promotion 30 is 42 (18.1%), Promotion 31 is 54 (23.3%), and Promotion 32 is 47 (20.3%) of the students that are enrolled in classes. The majority of the money used to support students' education comes from their families 154 (66.4%), followed by the students themselves 48 (20.7%), scholarships (26, or 11.2%), and other sources 5 (1.7%). The majority of participants 145(62.5%) got jobs. If not, the number of students who choose to study at NUM is 140 (60.10%) for educational quality, 82 (35.20%) for curriculum, 73 (31.30%) for career opportunity, 70 (30%) for NUM's image, 67 (28.80%) for location, 56 (24%) for lecturers, and 5 (2.20%). In the meantime, 196 students (84.10%) chose to major in tourism due to self-study, followed by career opportunity 80 (34.30%), curriculum match to the tourist market 69 (29.60%), family 22 (9.40%), and other (0.40%), respectively.

Table 1: Characteristics of the Respondents Respondent' Characteristics

	Frequency	Percentage
	Gender	
Male	75	32.3

Female	157	67.7
Promotion		
Promotion 29	89	38.4
Promotion 30	42	18.1
Promotion 31	54	23.3
Promotion 32	47	20.3
Fund Source		
Family support	154	66.4
My self	48	20.7
Scholarship	26	11.2
Other	4	1.7
Job available		
No	87	37.5
Yes	145	62.5
Decision to Study in NUM		
Image	70	30.00
Lecturer	56	24.00
Job opportunity	73	31.30
Location	67	28.80
Curriculum	82	35.20
Educational quality	140	60.10
Others	5	2.20
Decision to Study Tourism		
Family	22	9.40
Job opportunity	80	34.30
Sefl interest	196	84.10
Curriculum match market	69	29.60
Other	1	0.40

As table 2 below, researcher mention about five highest and lowest average score shown that faculty of tourism of National University of

Management have to encourage students to research/study tour/internship; motivating students learning with doing (Internship, study tour). Meanwhile, faculty also focus on activities involved to community such as sport, culture and environmental and try to inviting honorable guest speakers share knowledges and exact experiences to students. And the other hand, faculty also concentrate on the job opportunity announcement from different companies/organization to inform students.

Table 2: Descriptive Statistics of average

	N	Mean	Std. Deviation
Establish friendship with peer	232	4.00	.574
Develop mentor and connect to members	232	3.98	.588
Activities involved to community, sport, culture and environmental	232	**4.13**	.643
Student and family income	232	3.57	.705
Financial aid	232	3.81	.759
Study cost	232	3.66	.750
Cost–benefits match	232	3.59	.751
Job opportunity	232	**4.03**	.803
Proper guidance in choosing program before enrolling	232	3.93	.667
Consultant service on study,	232	3.90	.680
Inviting honorable guest speakers involved course	232	**4.12**	.649
Mental, physical, learning consultant service	232	3.83	.803
Learning center, tutorial and office hour	232	3.95	.643
Entourage students to research/study tour/internship	232	**4.16**	.683
Connecting students to academic life	232	3.90	.629

Curriculum match labor market	232	4.09	.697
Physical learning and teaching (in class)	232	4.01	.744
Learning with doing (Internship, study tour)	232	**4.15**	.689
Hybrid learning	232	3.35	1.102
Students engaged and progressing toward their academic goals until they complete their intended programs of study	232	3.99	.574
Keep enrollment	232	3.93	.487
supportive and effective learning environment	232	3.87	.582
Usually talk about this university with my friends	232	3.67	.628
If I have chance, I will tell people about my happy campus life here	232	3.65	.705
When I tell my friends about tourism skill of this university, I describe it in detail	232	3.81	.665
I always say well about tourism skill for this university to people	232	3.78	.706
I am honor to tell people that I am studying in this university	232	3.86	.707

Table 3 reports the results of reliability checks for both dependent and explanatory variables. Cronbach's alpha values of all variables are high, exceeding the 0.7 cutoff recommended by Hair et al (2010). As can be also seen from table 3, Cronbach's alpha estimated for academic performance scale was 0762; the student supporting service scale was 0.846; social-economic scale was 0.766; social engagement scale was 0.701 and tourism student retention scale was 0.788, respectively. As the Cronbach's alpha in this study was higher than 0.7, the constructs were therefore deemed to have an adequate reliability (Hair et al., 2010). Based on estimated reliability coefficients, it is apparent that the all dimension is a good reliable instrument.

Table 3: Reliability checks for individual variables in time series

	Case	Reliability Statistics	
Dimensions	No. of Obs.	Cronbach's Alpha	No. of Items
Academic Performance	232	0.762	7
Student Supporting Service	232	0.846	5
Social-Economic	232	0.766	4
Social Engagement	232	0.701	3
Tourism Student Retention	232	0.788	3

4.2 The Empirical Data Analysis

Base on the table 4 shown that some factors relates to positively and strongly on student retention such as academic performance, followed by supporting drive service, and socio-economic factor, respectively. For dimension that impact strongly on student retention refers to the factor of academic performance.

Table 4: Model Summary

Model Summary	
R-square (R^2)	.638
Adjusted R^2	.631
F-vale	99.896
Significant (p-value)	.000
t-value	4.441

Table 5:

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Const.)	.785	.177		4.441	.000		
	SE	.030	.051	.031	.589	.556	.583	1.715
	SEF	.077	.038	.095	2.017	.045	.721	1.386
	SSS	.230	.051	.285	4.555	.000	.409	2.446
	AP	.465	.059	.490	7.817	.000	.406	2.466

a. Dependent Variable: Student Retention
b. Independent Variable: Social Engagement; Social Economic Factor; Student Supporting Service; Academic Performance

The researcher employed multiple regression analysis to identify the predictors of student retention as shown above table 4 and 5. The model was statistically significant, F(4, 227) = 99.896, p < .001, and explained 63.8% of the variance in student retention (R^2 = .638). Collinearity diagnostics indicated that multicollinearity was not an issue, as VIF values were well below the threshold of five. The specific contributions of the independent variables were as follows dimension of academic performance was the strongest predictor of retention (β = .490, t = 7.817, p < .001). A unit change in academic performance leads to an estimated change of 0.465 in retention levels and followed by student supporting service factor significantly and positively influenced retention (β = .285, t = 4.555, p < .001); social-economic factor was also a significant positive predictor (β = .095, t = 2.017, p = .045) and social engagement dimension

did not reach statistical significance (β = .031, t = .589, p = .556) and thus this factor failed to support the hypothesis.

4.3 Discussion

The findings of this study demonstrate that student retention is not the result of a single factor, but rather a combination of institutional quality and student support. While the regression model explained 63.8% of the variance in retention, the individual dimensions provided specific insights into the tourism student experience at NUM.

The best indicator of student retention was found to be academic achievement. This implies that students are much more likely to persevere when they believe that their education is of good quality and that the curriculum aligns with the demands of the workforce. For proof that the outcome is in line with Qvortrup and Lykkegaard's (2022) assertion that the academic system's framework and the chance for intellectual engagement are essential to reducing dropout. Additionally, the emphasis on "learning with doing" through study tours and internships at NUM (Mean = 4.15) seems to be a key factor in this achievement. This is consistent with research by Buliba et al. (2023), which emphasizes that practical curriculum completion and the availability of instructional resources are crucial facilitators of student learning and retention. According to the study, student support services significantly and favorably affect retention. Announcements of employment openings and invitations to guest speakers were particularly appreciated by students (Mean = 4.03). This result is consistent with Seery et al. (2021), who found that mandatory orientation, academic skill development, and career-related support significantly contribute to student success. Additionally, according to Haverila et al. (2020), institutional support helps lessen "career indecision," which would otherwise result in attrition. The NUM data demonstrates that mental health consultation and appropriate guidance prior to enrollment are crucial elements of the retention plan.

Retention was positively impacted by socioeconomic characteristics, albeit to a lesser extent. The family's financial security is a recurring problem because 66.4% of students depend on family assistance. Tzafea and Sianou (2018) discovered that students from low-income households are more likely to not complete their programs within the allocated time limit, supporting the importance of this aspect. Focusing on financial aid programs from the outset is a "good way of assisting students," as suggested by Buliba et al. (2023) and Branson and Whitelaw (2024), particularly in unequal societies where income differences effect higher education completion. In this study, social involvement had no discernible effect on retention, in contrast to several foreign studies. Although making friends was valued by students (Mean = 4.00), these social activities did not result in a statistically significant cause for program retention. This is in contrast to Sá (2023) and Demetriou and Schmitz-Sciborski (n.d.), who contend that campus culture and social integration are the main sources of persistence. When choosing whether to continue their education, students in the Cambodian environment seem to place a higher priority on academic and professional results than on extracurricular social integration.

5. CONCLUSION AND IMPLICATIONS

5.1 Conclusion

The empirical results of this study conclude that student retention within the Faculty of Tourism at NUM is significantly influenced by three primary dimensions: academic performance, student support services, and socio-economic factors. The multiple regression model demonstrated that these variables collectively explain 63.8% of the variance in student retention (R^2 = .638).

Among the investigated factors, academic performance emerged as the most powerful predictor of student persistence. This highlights that tourism students prioritize the quality of the curriculum, the availability of instructional resources, and the practical "learning-by-doing" opportunities provided by the faculty. While student support services and socio-economic factors also play vital roles in sustaining enrollment, social engagement—including extracurricular activities and peer integration—was found to be statistically insignificant in this specific Cambodian context. Ultimately, the study confirms that institutional quality and financial accessibility are the cornerstones of student loyalty at the National University of Management.

5.2 Recommendations

Based on the research findings, the following recommendations are proposed to enhance student retention rates:

Strengthening Academic Quality

Enhance Practical Learning: Students gave field trips, study tours, and internship possibilities excellent ratings, therefore the teachers should encourage experiential learning. Modernize Curriculum: To guarantee that students understand the practical applications of their degrees, the tourism curriculum must be continuously aligned with the changing labor market. Resource Optimization: Academic departments should make sure that contemporary teaching resources, such as hybrid learning platforms and audio-visual aids, are consistently available.

Improving Student Support Systems

Career and Academic Counseling: Create official career counseling and mental health programs to assist students in navigating curriculum requirements and the unpredictability of the labor market. Job Placement Services: Teachers should actively promote job openings and invite guest speakers from the sector to share their precise professional experiences with students. Mentorship Programs: To lessen feelings of loneliness while studying, implement peer-mentoring and advisory services with an appropriate student-to-staff ratio.

Addressing Socio-Economic Challenges

Financial Aid Transparency: To help students from low-income households, universities should advertise and grow their financial assistance and scholarship programs, especially from the beginning of the student's journey. Cost-Benefit Management: Especially in light of fluctuations in the world economy, educational institutions should continue to be mindful of how to balance the expenses of tuition with the benefits of education.

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PUBLIC MANAGEMENT IMPROVES EFFECTIVENESS OF INSTITUTIONAL PERFORMANCE

Dr. SENG Bunthoeun[1]

ABSTRACT

This study is intended to prove and analyze the effectiveness of public management on institutional performance variables. The research design of this paper is mixed-method. An inferential and descriptive statistical tool using SPSS and NVivo software is used to analyze data. The result of the study showed that effectiveness of public management and institutional performance variables have positive and significant influence on each other. It is concluded that public management has become the mediating and significant variable on instructional performance variables, which then significantly influences employee's performance in public institutions.

Keywords*: Public management, Institutional performance, Effectiveness*

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1. INTRODUCTION

1.1 Background of study

Today, there are millions of professionals practicing the complex profession of public management all over the world (Bozeman & Feeney, 2014; Cooper et al., 2006; Pollitt & Bouckaert, 2017). (Hughes, 2017; McGuire, 2006; Savas, 2000) Public management has advantages for corporations, government organizations, professional and trade groups, non-profit charities, educational institutions, healthcare facilities, and a wide range of other organizations. However, as public management has moved toward increased status among those who have entered the profession, according to Klijn and Koppenjan (2000) and Ferlie (2008). Public management, without a doubt, has drawn increasing attention due to its significant impact on organizational growth and development through good public management practice (Kapucu et al., 2009). Institutional performance can be characterized in both financial and non-financial terms. It is the outcome of a company as assessed against its planned aims. (Andrews et al., 2006; Ahmed & Shafiq, 2014) Public management functions have been acknowledged as making it easier for organizations to formulate strategies to improve institution performance.

According to Walker et al. (2011), public institutions engaged in institutional restructuring and management process improvement to improve institutional performance. Recently, the focus has switched to concerns with governance, networking, and the implementation of service improvement tactics centered on strengthening institutional and management capabilities. In spite of the fact that public management reform is becoming more and more important globally, comparatively little research has been done to assess how public management improves

government performance (Forbes & Lynn Jr, 2005). While performance-based initiatives are widely supported as a means of addressing shortcomings in service delivery, there is conflicting empirical data supporting their efficacy and ambiguous conceptual boundaries (Brinkerhoff & Wetterberg, 2013).

1.2 Problem Statement

Based on the veritable role of public management in achieving reciprocal relationships within an institution and its target audience in general (Aucoin & Heintzman, 2000; Kristmundsson, 2002; Walker et al., 2011), the fact that effective public management can ensure positive institutional performance cannot be overridden. Therefore, it is essential to have excellent public administration to guarantee good institution performance (McGuire, 2006). The communication between an institution and its stakeholders has been the subject of several research (Andrews & Boyne, 2010; Meier & O'Toole Jr, 2002; Nicholson-Crotty & O'Toole Jr, 2004; Paul Battaglio & Condrey, 2009). Based on the above, it can be said that public management is crucial to institutional performance (Bess, 2012; Bryson et al., 2014). However, studies have demonstrated that even with public administration, most institutions fall short of expectations. It is impossible to pinpoint the precise causes of this subpar performance. With a focus on three public higher education institutions in Phnom Penh, this study aims to examine the effectiveness of public management on institutional performance.

1.3 Research Questions

i. What is the effectiveness of public management on institutional performance in three of the public higher education institutions in Phnom Penh?

ii. To what extents does public management influence institutional performance in three of the public higher education institutions in Phnom Penh?

iii. What are the challenges facing the activities of public management towards ensuring effective institutional performance in three of the public higher education institutions in Phnom Penh?

1.4 Research Objectives

i. To investigate the effectiveness of public management on institutional performance in three of the public higher education institutions in Phnom Penh.

ii. To explore the influences of public management on institutional performance in three of the public higher education institutions in Phnom Penh.

iii. To examine the challenges facing the activities of public management towards ensuring effective institutional performance in three of the public higher education institutions in Phnom Penh.

1.5 Scope and limitation

The study will only include 50 of the 100 higher education management boards from the three public higher education schools in Phnom Penh and will be conducted at three of the public high education institutions. This study demonstrates the positive effectiveness of public management has on institutional performance. Additionally, because this survey is one of the first in this field and the researcher wants to have a comprehensive knowledge, other demographic factors including gender, age groups, ownership of digital devices, and income are also not included.

Next, this study only examines the effectiveness of public administration on institutions performance while examining how strongly independent and dependent variables are related to one another. However, due to the sensitivity of the survey's results, questions about how the results of the survey were handled were included in the quantitative section since they might have an impact, particularly on public management and institutional performance.

1.6 Significance of study

The findings of this study are important to many groups involved in public management education generally. Policymakers in the Cambodian Ministry of Education, Youth, and Sport (MoEYS), which offers public management programs in public higher education institutions, may find the research's findings valuable. The necessity for the Cambodian government to mobilize public management education in the hopes of developing improved regulations for workplace requirements serves as additional support for this. Because it is a method that integrates learning materials and how students interact with such excellent coursework, public management taught using a Cambodian course syllabus enhanced with institutional performance has the ability to increase students' critical thinking skills.

Also, this research has the potential to be very beneficial. Educators can use the study's findings as a starting point for developing written material for public management and choosing the most useful course syllabus components by following the information and advice provided in the study's findings. Along with the importance of assigning duties, this is also true. As this study continues, it will apply a few pertinent theories on public management and institutional performance.

2. LITERATURE REVIEW

According to Birdsall (2018), performance management systems are being used by governments more and more to increase institutional responsibility and effectiveness. The institution's strategy and goals are the main focus of management control systems, which also aim to ensure that the institution creates and executes programs that are both successful and efficient (Verbeeten, 2008).

In order to manage organizational performance, performance indicators are used, and differences between targets and realized figures are analyzed. Performance management is a more general term (Modell, 2009; Otley, 1999). Per Gomes and Mendes (2023), public management is a significant organizational process feature that results from public management reform and impacts performance on its own (Walker et al., 2011).

2.1 Relationship Management Theory

Elton (1920) developed the concept of relationship management by fusing dialectical and exchange theories. A relationship is an ongoing process, and the state of the preceding process has an impact on how the current relationship develops. When an organization recognizes its connection with other parts of the institutional environment and recognizes the important role that each stakeholder plays in the institution's efficient functioning, a relationship and interaction between the institution and the public can begin.

2.2 Theory for Public Management

Contemporary public management theory is broadly encapsulated within the New Public Management (NPM) paradigm. The genesis of this body of theory has been well-analyzed elsewhere (for example, McLaughlin et al., 2009; Thomas, 2012). It arose as a response to three lines of critique of the traditional public administration premise of the “politics—administration dichotomy” (Svara, 2008). The first of these queried the enactment of this dichotomy in practice (Pressman, 1975; Vroom & Yetton, 1973).

The daily operations of public administration appear to have been relatively unaffected by Simon's positivist decision-theory, and the language, justifications, and influence of management principles in public organizations remain remarkably "proverbial." The ideas of these "New Public Management" doctrines, as they have been dubbed, are widely used in the contemporary practice of public administration. Ferlie (1996) defined public management as the formal and informal methods that direct human interaction toward public organizational goals.

Contemporary public management theory is broadly encapsulated within the New Public Management (NPM) paradigm. The genesis of this body of theory has been well-analyzed elsewhere (for example, McLaughlin et al., 2009; Thomas, 2012). It arose as a response to three lines of critique of the traditional public administration premise of the "politics—administration dichotomy" (Svara, 2008). The first of these queried the enactment of this dichotomy in practice (Pressman, 1975; Vroom & Yetton, 1973).

2.3 Theory for Institutional Performance

According to contingency theory, decisions are influenced by a variety of internal and external factors since the optimum choice may vary from institution to institution. As a result, an organization's leaders' decisions ultimately determine whether or not it will be successful (Van de Ven & Drazin, 1984).

2.4 Previous Studies

According to other previous studies, the effectiveness of public management on organizational performance includes actual results or outputs as opposed to intended outputs (Ahmed & Shafiq, 2014; Bozeman & Feeney, 2014; Cooper et al., 2006; Pollitt & Bouckaert, 2017; Paul Battaglio & Condrey, 2009). The three key outcomes that are the subject of the examination are market performance, financial performance, and performance as measured by shareholder value. The degree to which the company, with some informational, financial, and human resources, places itself effectively in the business market is referred to as institutional performance, as seen in the illustration.

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Therefore, there is a close relationship between institutional performance and public management.

2.5 Research Gaps

According to the literature, there hasn't been enough study of how well public management affects institutional performance. To yet, no one has applied any of the additional, as-yet-undiscovered traits found in the research mentioned in the context of Cambodia. These previously unidentified elements that have an impact on institutional performance in the context of public management in higher education institutions seem important and merit further study.

3. METHODOLOGY

3.1 Research design

According to Morse (2016), this study is set up as a mixed-method design. A statistical analysis is performed on each study question. The researcher will test the data for each variable in accordance with research questions 1 and 2 to display the p-value. In order to study in-depth interviews on institutional performance based on public management, the researcher concentrates on addressing research question 3.

3.2 Research instruments

There are two variables in this study: an independent variable (public management) and a dependent variable (institutional performance). The questions for the quantitative part will be adapted from Sciarelli et al. (2020) and Verbeeten (2008). As for the qualitative part, the interview questions will be adapted from Biron et al. (2011).

3.3 Data collection

The researcher will spend three months gathering data for this mixed method design through face-to-face questionnaire distribution and direct campus interviews.

3.4 Target population

The 75 management boards from three public higher education schools in Phnom Penh will be the subject of the researcher's study.

3.5 Sample Size

Israel (1992) stated that a sample size of 50 should be used if the population is 100. As a result, the researcher will give questionnaires to 50 management boards for the quantitative part. For the qualitative part, the researcher will interview with 12 people in-depth.

Additionally, according to Teddlie and Yu (2007), 30 instances ought to be adequate for a mixed-method design where purposive sampling helps address particular research concerns based on the context. As a result, the sampling technique is judged to be valid and adequate. According to Creswell (2015), the qualitative sample for qualitative sampling should be taken from the quantitative sample pool. An acceptable sample size would be between 5 and 50 participants (Dworkin, 2012).

3.6 Analytical tools

Correlation coefficient tools are used to analyze the collection data in SPSS version 23 in order to produce quantitative results (Pallant, 2020). The interview transcripts are transcribed using Nvivo 10 software based on thematic analysis to produce qualitative results (Zamawe, 2015).

3.6.1 Quantitative Data Analysis Procedure

The questionnaire is created after a thorough analysis of the published literature. Each question was scored using a Likert-type scale with five possible outcomes, ranging from 1 (Strongly Disagree) to 5 (Strongly Agree) and (1=not at all, 5=always). Close-ended survey questions that ask the management board whether or not they agree with the statement are subjected to quantitative analysis. The English version of the survey is sent out.

3.6.1.1 Statistical Tools

The researcher uses the Correlation Coefficient. The Correlation Coefficient is the single value or number which establishes a connection between the two variables (Dastmard, 2013; Senthilnathan, 2019). Gogtay and Thatte (2017); Landau and Everitt (2003) express how to calculate the Pearson Correlation Coefficient in the SPSS (version 23). The Correlation Coefficient (r) addresses between -1 and +1, i.e., $-1 \leq r \leq +1$ is adopted from Kothari (2004); Mukaka (2012); Schober et al. (2018). Besides, the researcher uses the probability value (P-Value) to determine whether the hypotheses of the research study are rejected or accepted based on Greenland et al. (2016); and Hubbard and Lindsay (2008). Also, the researcher addresses the significance levels of P-Value adopted from Almquist et al. (2014); and Nuzzo (2014).

3.6.2 Interview protocol

In order to direct the interview process, the researcher also creates an interview protocol that includes details about the interview, an introduction, the questions, and a closing remark (Creswell & Creswell, 2018). The protocol also specifies that the management board must verbally consent before giving the researcher access to study data, and that the researcher will record, interpret, analyze, and report study data anonymously. Through exploring deeper into the implications of the findings, the researcher's reflections, and viewpoints, as well as through contrasting and contrasting the findings with the literature, the research question is answered. Each interview is scheduled for an average of 45 minutes and is done in the same location for all management boards as a face-to-face session in order to give the management board the opportunity to share their experiences (McCracken, 1988). According to Bayram and Bkmaz (2018), the researcher's participation is crucial and needs to be acknowledged in a qualitative study. As a result, the researcher can fully understand the interview because she speaks Khmer fluently as a first language (Baumgartner, 2012).

4. DISCUSSION OF FINDINGS

The researcher has raised some main aspects related to:

i. Public management is a global profession that millions of people practice and that helps enterprises, governments, professional associations, charities, educational institutions, hospitals, and hotels.
ii. Due to its major contribution to institutional growth and development through successful practice, public management has come to be recognized as a management function and has received more attention.
iii. Public management functions, which assist in developing strategies to improve an organization's performance, facilitate

institutional performance, as determined by financial and non-financial goals.
iv. Public institutions that have recently placed a priority on governance, networking, and service improvement techniques when restructuring and enhancing management procedures to increase performance.
v. Good public management is essential for strong institutional performance because it promotes ties between institutions and the people they are trying to reach. According to studies, accomplishing this goal requires efficient communication between institutions and stakeholders.

4.1 Results of Quantitative Data

4.1.1 Demographic Data

In this section, the researcher first used descriptive analysis to find numerical patterns in the respondents' data. Next, using Correlation Coefficient, the overall data set is put into context, based on descriptive statistics of the respondents and variables. The overall quantitative findings are summarized accordingly.

4.1.2 Descriptive Statistics of the Respondents and Variables

Based on Table 1 the majority of respondents are female. They all are in Master’s Degree level in the age between 30 to 45 years old. The demographic details were used to ensure that none of them were in different grades and to gather feedback that are important for permission purposes especially for those that were not adults. It was found that the majority of gender were female with the age between 30 to 45 years old.

Table 1: Demographics of Respondents

		Description	
		Freq.	**Percent (%)**
Gender	*Male*	20	40%
	Female	30	60%
Age	*30-45yrs*	50	100%
Grade Level	*Master's Degree*	50	100%

Table 2 showed that there was a significant relationship between the public management (PM) and institutional performance (IP). Furthermore, each dimension of PM has a high positive correlation with IP. Each correlation value illustrated a high positive correlation or a marked relationship with a statistically significant level of 0.01 ($p < 0.01$).

Table 2: Result Correlation Coefficient

Variables	Correlation Coefficient	P-Value
PM	0.80	0.00
IP	0.75	0.00

Note: Correlation is significant at the 0.01 level (2-tailed)

4.2 Results of Qualitative Data

In this section, the researcher focuses on answering research question 3 (RQ3) to explore in-depth interviews on institutional performance: planning, monitoring, reviewing, and rewarding. Therefore, ten interview questions were used (Appendix A) and verbatime from 12 respondents to gather this information, as suggested by Monrouxe and Rees (2020).

According to Michelene (2009), this strategy is important to represent the difference in the cognitive processes involved.

4.2.1 Descriptive Statistics of the Respondents

Based on Table 3, the majority of respondents is male. 100% of them are in Master's Degree level in the age between 30 to 45 years old.

Table 3: Demographics of respondents

Description			
		Freq.	**Percent (%)**
Gender	*Male*	10	80%
	Female	2	20%
Age	*30-45yrs*	12	100%
Grade Level	*Master's Degree*	12	100%

The findings from the interview were analyzed based on positive and negative valance (Table 4) to enable the researcher to quantify the findings for the study. Therefore, a deductive coding strategy was used to determine the valance. This was followed by identifying themes to describe the findings based on institutional performance: planning, monitoring, reviewing, and rewarding.

Table 4: Findings from Interview

Sub-theme	*Perception*	*Code/ themes*	*Reason*
Q1	*Positive*	- Effective management (n=6) - autonomy (*n=3*) - good rewards (*n=8*)	Respondents claimed slight improvement in management, and need for better management in some areas. Next the interaction between management board improved their performance in how they apply what they perform and communicate in the institution.
	Negative	- No direction in learning objective (*n=2*)	*Respondents claimed that they prefer to have some direction about the task that will be done in the institutions if possible..*
Q2	*Positive*	- Accessibility (*n=4*) - New methods of management(*n=1*)	*Respondents stated that they performed well with the tasks assigned.*
Q3	*Positive*	- Clear leadership interaction (*n=2*) - Effective instructions and recommendations (*n=4*)	*Respondents expressed that they knew what to do next based on each instruction from management board..*
Q4	*Positive*	- Scale 3" Moderate" (*n=1*) - Scale 4" High" (*n=4*) - *Beneficial (n=3)*	*Majority of respondents claimed high effort, however they agree it was beneficial in helping them focus on those practices better.*
Q5	*Positive*	*Learning from mistakes is good (n=4)*	*Respondent illustrated that learning from mistakes was good because the outcome of performance was acceptable and fruitful.*
	Negative	*Inactive sometime (n=5)*	*There would be great if the tasks provided are actively followed up by leaders closely.*

Based on the interview question for institutional performance: planning, monitoring, reviewing, and rewarding, the respondent (R) indicated a lack of performance as they would prefer to be more prepared and followed up by management board closely. Respondent R1-R12 explained

> *"We didn't have clear plans beforehand for a variety of reasons. In any case, in the institution, we discussed to exchange our*

points of view. It would be beneficial if tasks were explained and instructed well, so that we may review and perform the tasks effectively."

However, overall, they indicated a positive perception as they found the intervention as slightly effective. Respondent R1-12 stated, "*We have progressed a bit for performing the tasks in the deadline set.*" Next, while respondents were to manage their performance better, "*We have discovered that we must prepare myself*" and autonomy as they can control the tasks assigned to understand the instructions, performance was reflected in their communication in the institution. R1-12 described this, "*We are forced to think about tasks in flexible ways and try to apply them to the real situation rather than listening to instructions.*"

They indicated a positive perception as they found good interaction in management activities. Next, concerning performance, the respondents indicated improved participation in advancement of tasks to be more fruitful by cooperation well. Respondent R1-12 explained, "We like it better since the clear recommendations appealed to us. We can also access it at any moment". R1-12 stated, "*We prefer not to submit the tasks later since at the end of the day, we will get the rewards.*"

In addition, they interacted the most with the performance materials and tasks provided during the good time. R1-12 explained, *"I think the tasks are good with clear instructions".* The respondents expressed that clear instructions are the main features for achieving activities set the management board. Therefore, they interacted the most as shown by

R1-12 "*The deadline is ok to me. The interaction from management board is also great.*"

According to respondents' putting effort in performance activities, they stated that they focus on the tasks with better improvement as mentioned by R1-12, "*We try our best to perform well. We scale of 4 in how much effort in engage from management board* ". The high effort scale is stated by R1-12, *" We feel like we focus on tasks better*."

4.3 Discussion of Findings

4.3.1 Data Analysis of Quantitative Data

The summary of the quantitative findings for this study is described in Table 5.

Table 5: Summary of Quantitative Findings

Research Questions (RQ)	*Hypotheses*	*Outcome*	*Findings*
RQ1: What is the effectiveness of public management on institutional performance in three of the public higher education institutions in Phnom Penh?	*Ho1*	Null hypothesis accepted	No significant difference
RQ2: To what extents does public management influence institutional performance in three of the public higher education institutions in Phnom Penh?	*Ho2*	Null hypothesis accepted	No significant difference
RQ3: What are the challenges facing the activities of public management towards ensuring effective institutional performance in three of	*Ho3*	Null hypothesis accepted	No significant difference

the public higher education institutions in Phnom Penh?			

4.3.2 Data Analysis of Qualitative Data

Based on the qualitative outcome, the researcher summarized the overall institutional performance (Table 6), following the frequency of the positive themes generated from the students' statements. Based on Table 6, it was observed that the public management has effectiveness on institutional performance observed were related to confidence in their performance due to the tasks provided.

Table 6: Themes Comparison for Institutional Performance

Themes generated from the participants' statements	Instances cited by Respondents
Theme 1: Beneficial from leadership	4
Theme 2: Leadership autonomy	2
Theme 3: Effective management	2
Theme 4: Confidence on performing tasks	4

4.3.3 Discussion of Results/Findings

The purpose of this study is to investigate the public management has effectiveness on institutional performance. Therefore, the objectives of the study were:

i. To investigate the effectiveness of public management on institutional performance in three of the public higher education institutions in Phnom Penh.

ii. To explore the influences of public management on institutional performance in three of the public higher education institutions in Phnom Penh.

iii. To examine the challenges facing the activities of public management towards ensuring effective institutional performance in three of the public higher education institutions in Phnom Penh.

The three research objectives were achieved in this study through a deeper understanding of engagement, a mixed-method approach was used for explanatory purposes to support the findings of the quantitative findings. The discussion section will be elaborated based on the RQ1 to RQ3 to support both quantitative and qualitative data.

Public management

Public management is essential in supporting good attitudes and behaviors in staff and improving success and the sense of ownership in tasks performance. Public management is important in instructional performance improvement if there is an appropriate instruction given as it reflects staff tend to work hard in achieving their performance goal. Based on the findings, $H_0$1 to Ho3 was accepted as there were no significant differences between public management on institutional performance. Furthermore, it was also found that high and low levels of Effectiveness did not affect the differences between both variables, therefore also accepting $H_0$1 to Ho3. Next, level of Effectiveness also did not moderate outcomes of overall institutional performance.

Based on the qualitative findings where respondents provided feedback and recommendations in each interview question set, it was observed respondents found the intervention as beneficial as it improved leadership autonomy and effective management. Nevertheless, only a few respondents indicated an improvement in leadership confidence, which overall did not influence the difference at all, which was also indicated in the non-significant outcome from the quantitative findings.

Institutional Performance

There was no difference between institutional performance and its interaction effect on public management, thus $H_0 1$ and $H_0 3$ fail to be rejected. The outcome of the study improved as they became more comfortable practicing and performing well in an effective management setting. Similarly, they were also found to be more confident in their tasks as well-progressed due to actively monitoring on the effort, they had to embed to achieve all the tasks. This includes collaborating and having more discussion with peers and management board to fulfill a task as they are assigned to do accordingly.

5. CONCLUSION AND RECOMMENDATIONS

5.1 Conclusion

This study has provided appropriate findings that public management really effects on institutional performance, particularly the performance of public institutions in Phnom Penh, Cambodia. At the same time, the study is also expected to show that the findings to generate some recommendations that can be taken into consideration by public institutions which would in turn contribute to a better institutional performance and eventually to improve the services provided by these institutions to Cambodian people.

Furthermore, the effectiveness of public management on institutional performance was positive and significant, indicating that management board and subordinates who work in a strong culture feel more

committed to perform tasks with fruitful results. In addition, this significant relationship indicates that people who work in a cooperative culture feel more committed. It appears from the research that there is a link between public management and institutional performance.

Furthermore, to be able to draw conclusions that are generalizable across Cambodian context as well as other developing countries with similar cultural practices, replicating the present study is encouraged. In addition, the model of the present study can be validated to other countries that have unique and strong public management practices on institutional performance. This study had considered effectiveness of public management on institutional performance as great variables. This study concludes that public management is more important in enhancing staff performance, satisfaction and commitment. Public management plays a critical role in improving institutional performance in public institutions through the mediation of strong commitment of management board and subordinates.

5.2 Recommendations

Since institutional performance was found to mediate the effectiveness of management board, the present study recommends appointing a manager/leader who has good management qualities to achieve better institutional performance. Therefore, leaders and the management of the institutions should understand their subordinates' performance in each institution. In addition, people with such leadership qualities should be appointed to lead the public institution of Cambodia. To improve the performance of public institutions, the Royal Government of Cambodia should amend the policies to more utilize subordinates' skills and talent and should award recognition to them.

Future research is recommended to consider using a case study approach to observe and examine the dynamic nature of the relationship between institutional culture, leadership styles, organizational commitment, and job satisfaction. The case study approach will enable researchers to understand the complex relations over time. The complexity of institutional performance should be understood from the sophisticated and intricate government management systems and components that collectively make up performance of the public-sector institutions. By using a case study, detailed and meaningful insights could be obtained into the potential success factors. Apart from a case study approach, a longitudinal research design can also be employed to detect changes over time as a result of the interactions between institutional culture, leadership styles, institutional commitment, and job satisfaction practices on institutional performance.

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MARKETING STRATEGIES OF KNAI BANG CHATT BY KEP WEST

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ABSTRACT

This research investigates the marketing strategies of Knai Bang Chatt by Kep West, focusing on their impact on sales performance and the challenges encountered during implementation. The study is guided by two primary research questions: What are effects of marketing strategies on sales performance of Knai Bang Chatt resort? What are the challenges of the marketing strategies of Knai Bang Chatt? The general objective of the study is to determine the effect of marketing strategies on the resort's sales performance. Specifically, the study aims to examine the impact of these strategies on sales performance and to identify and analyze the challenges faced by Knai Bang Chatt in their implementation. A mixed-methods approach was employed to achieve these objectives. Quantitative data was gathered from the resort's sales records to measure the correlation between marketing efforts and sales performance. Additionally, qualitative data was collected through interviews with key stakeholders, including management, marketing staff, and customers, to gain a deeper understanding of the challenges and perceptions surrounding the marketing strategies. The findings of the study indicate that the marketing strategies employed by Knai Bang Chatt have a positive impact on sales performance. Effective promotional campaigns, digital marketing initiatives, and personalized customer experiences were identified as significant contributors to sales growth. However, the research also highlighted several challenges, such as budget constraints, competition from other resorts, and a lack of advanced digital marketing tools and expertise. This study provides valuable insights into the effectiveness of marketing strategies at Knai Bang Chatt and identifies key challenges that need to be addressed for continued success.

Keywords: *Marketing Strategies, Sales Performance, Digital Marketing, Implementation Challenges.*

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1. INTRODUCTION

1.1 Background of the Study

Knai Bang Chatt, officially established in 2005 as Knai Bang Chatt (Cambodia) Co., Ltd., is a 5-star barefoot luxury boutique resort located on Cambodia's southern coast in Kep Province. The resort is renowned for its Wabi Sabi-inspired minimalist aesthetic, embracing simplicity, natural elegance, and the beauty of imperfection. It features 18 elegantly restored rooms housed in 1950s villas, surrounded by lush tropical gardens. As a pioneer in sustainability, Knai Bang Chatt became the first hotel in Cambodia to receive the Green Growth 2050 certification in 2016. The resort also hosts Cambodia's first Sailing and Discovery Center—recognized by the National Sailing Federation—which offers curated experiences promoting both cultural immersion and environmental awareness. Since its inception, Knai Bang Chatt has undergone a steady evolution. Initially a preserved private property reflecting Kep's colonial heritage, the resort began operating commercially between 2006 and 2012 with 11 rooms. From 2012 to 2022, it expanded its facilities to include 18 rooms, launched the Sailing Club, and deepened its commitment to corporate social responsibility. In 2023, the resort entered a new phase of transformation by rebranding as "Knai Bang Chatt by Kep West," repositioning itself as a holistic luxury beach destination designed for experiential travel and regenerative tourism. Knai Bang Chatt's mission is to deliver iconic and innovative guest experiences that reflect the charm of its romantic beachfront setting and high-end, culturally rich environment in Kep. The resort is dedicated to creating meaningful stays by blending minimalist elegance, personalized service, and a strong commitment to sustainability. Its vision is to establish Kep West as a leading destination for discerning global travelers who are seeking not only luxury and comfort but also opportunities to reconnect with nature, embrace wellness, and experience authentic moments of tranquility and cultural immersion.

In today's highly competitive global hospitality industry, effective marketing strategies are essential for attracting diverse international clientele and ensuring long-term sustainability. This study examines the case of Knai Bang Chatt, a luxury resort located in Kep Province, Cambodia. Despite its tranquil setting, high-end offerings, and strong local reputation, the resort has experienced a noticeable decline in international sales. This signals an urgent need for a strategic marketing intervention to restore its competitiveness in overseas markets. The hospitality industry continues to face rapid shifts driven by changing consumer behavior, increased global mobility, and digital transformation. Marketing plays a critical role in shaping brand perception, driving guest loyalty, and ultimately influencing revenue—especially in international markets where expectations and cultural preferences vary widely. The COVID-19 pandemic further intensified these challenges, severely disrupting global tourism. In Cambodia, a 2021 survey of 1,000 tourism-related enterprises revealed that 47% had ceased operations, and only 22% were able to operate without significant disruption. For resorts like Knai Bang Chatt, which rely heavily on international visitors, the impact has been profound. As the global tourism sector slowly recovers, there is a pressing need for resorts to adopt updated, data-driven marketing strategies. This study aims to identify and recommend tailored marketing approaches that align with Knai Bang Chatt's unique value propositions, with a particular focus on enhancing its brand visibility and

appeal to foreign guests. Through an evaluation of market trends, internal performance data, and strategies employed by comparable establishments, this research provides practical insights for strengthening Knai Bang Chatt's international positioning. The findings offer relevance not only to Knai Bang Chatt but also to other hospitality businesses navigating post-pandemic recovery in Southeast Asia and beyond.

1.2 Problem Statement

A review of Knai Bang Chatt's financial performance indicates a net loss of USD 198,128 in 2021, improving slightly to a loss of USD 184,266 in 2022. Although this suggests a marginal recovery, the resort's sales have not mirrored the sharp growth seen in national tourism statistics. According to the Cambodia Tourism Statistics Annual Reports, a total of 4,663,082 Khmer visitors and 279,278 foreign visitors were recorded in 2021, with the coastal zone receiving 2,050,865 Khmer and 105,892 foreign visitors. In 2022, these numbers increased significantly, reaching 13,934,150 Khmer visitors and 1,877,187 foreign visitors overall, including 7,115,856 Khmer and 424,189 foreign visitors specifically in the coastal zone.

Despite this resurgence, Knai Bang Chatt has not experienced corresponding improvements in overseas guest numbers or revenue, indicating a gap in its international marketing strategy.

1.3 Research Question

The following research questions were designed to guide the study:

1. What are effects of marketing strategies on sales performance of Knai Bang Chatt resort?

2. What are the challenges of the marketing strategies of Knai Bang Chatt?

1.4 Objective Of Study

The general objective of the study was to find the effect of marketing strategies. However, the specific objectives are to:

1. To examine the impact of marketing strategies on the sales performance of Knai Bang Chatt resort.
2. To identify and analyze the challenges faced by Knai Bang Chatt in implementing their marketing strategies.

1.5 Significance Of the Study

This research is significant in its potential to support Knai Bang Chatt's recovery and long-term competitiveness in the international market. By addressing declining overseas sales, the study provides actionable recommendations for marketing optimization. Furthermore, it contributes to the academic and professional understanding of marketing practices in post-pandemic hospitality recovery.

For students, researchers, and industry practitioners, the study offers insights that can inform strategic decisions in similar resort contexts. The focus on Knai Bang Chatt serves as a case study with broader implications for luxury resorts operating in developing tourism markets.

1.6 Scope And Limitations

This research is limited to Knai Bang Chatt and concentrates specifically on the 7Ps marketing mix framework: Product, Price, Promotion, Place, People, Physical Evidence, and Process. While this focused scope enables an in-depth analysis of the resort's strategies, it may also limit the

broader applicability of the findings to other resorts or contexts. Additional limitations include the exclusion of broader external influences such as macroeconomic shifts or geopolitical events, the potential for bias arising from internal stakeholder perspectives, and a reliance on qualitative data over quantitative measures. Despite these constraints, the study provides a valuable foundation for understanding key marketing challenges and opportunities not only for Knai Bang Chatt but also for similar hospitality businesses seeking to enhance their strategic approach.

2 LITERATURE REVIEW

2.1 Sales Performance

Sales performance evaluates how well an organization meets its revenue targets through various metrics: sales revenue, customer acquisition, retention rates, and conversion efficiency (Churchill et al., 2019; Reichheld, 2003). Effective marketing strategies are essential in optimizing these KPIs, especially in service sectors like hospitality.

2.2 The 7ps Marketing Strategy and Sales Performance

Marketing is a core business function centered on understanding customer needs and facilitating value-driven exchanges through goods, services, or ideas. Historically, the term "marketing" dates back to the sixteenth century, evolving into a modern concept of customer-centric business practices by the late 1800s. Marketing history has two main branches: the practice of marketing and the evolution of marketing thought. Scholars debate its origins—some link it to early consumer culture in 17th-century Europe, others to developments after the Industrial Revolution. The discrepancy lies in whether marketing is defined narrowly as distribution or more broadly as strategic planning involving segmentation, positioning, and communications. Marketing planning is likened to a journey, requiring preparation, market analysis, and strategic direction to reach objectives. It is a structured process that aligns goals, strategies, and customer needs. Early theorists like Kotler emphasized marketing as an exchange process that creates mutual value and satisfaction. Modern marketing integrates brand building, innovation, communication, and relationship development to generate demand, meet organizational goals, and support sustainability. Strategic marketing emerged as a distinct discipline in the 1970s, reinforcing the connection between business goals and customer-focused actions. A marketing strategy functions as a game plan, outlining the target market, positioning, pricing, channels, and promotions. Choosing the right target market, crafting a compelling value proposition, and differentiating products are essential for competitive advantage. The 7Ps model (Product, Price, Place, Promotion, People, Process, Physical Evidence) provides a comprehensive framework for marketing strategy, especially in service industries. Each element impacts customer behavior and, consequently, sales performance:

A product includes tangible and intangible offerings that satisfy customer needs. Its quality, design, differentiation, and innovation significantly influence customer satisfaction and purchase intent (Kotler & Armstrong, 2018; Zeithaml, 1988). Strong product development aligned with consumer preferences leads to higher sales performance and competitive advantage.

H1: Product has a significant effect on sales performance.

Price serves as a critical determinant of customer perception and profitability. Elements like price fairness, competitiveness, and discount strategies affect customer behavior and satisfaction. Dynamic pricing and value-based strategies are especially effective in the hospitality industry (Kotler et al., 2013; Nagle et al., 2016).

H2: Price has a significant effect on sales performance.

Place relates to the accessibility and distribution channels used to deliver products and services to the target market. In hospitality, a combination of physical presence and digital platforms maximizes reach and convenience. A well-executed place strategy boosts visibility and facilitates conversions (Kotler & Keller, 2016; Coughlan et al., 2006).

H3: Place has a significant effect on sales performance.

Promotion encompasses tools such as advertising, public relations, digital marketing, and sales promotions to raise awareness and persuade customers. Strategic alignment with target audience behavior ensures effectiveness, while over-promotion risks brand dilution (Kotler & Armstrong, 2018; Chaffey & Ellis-Chadwick, 2016).

H4: Promotion has a significant effect on sales performance.

People refer to employees and service staff interacting with customers. Their engagement, knowledge, and service quality shape customer perceptions and loyalty. While technology aids sales, human interaction remains crucial in hospitality settings (Zeithaml et al., 2012; Armstrong & Taylor, 2014).

H5: People have a significant effect on sales performance.

Process denotes the systematic operations ensuring service delivery and customer experience consistency. Streamlined, automated, and customer-centric processes enhance satisfaction, efficiency, and ultimately, revenue (Davenport, 2013; Chase & Jacobs, 2018).

H6: Process has a significant effect on sales performance.

Physical evidence includes the tangible elements of service—ambiance, cleanliness, staff uniforms, digital platforms—which affect brand trust and first impressions. A well-designed environment improves customer experience and encourages repeat visits (Bitner, 1992; Kotler & Keller, 2016).

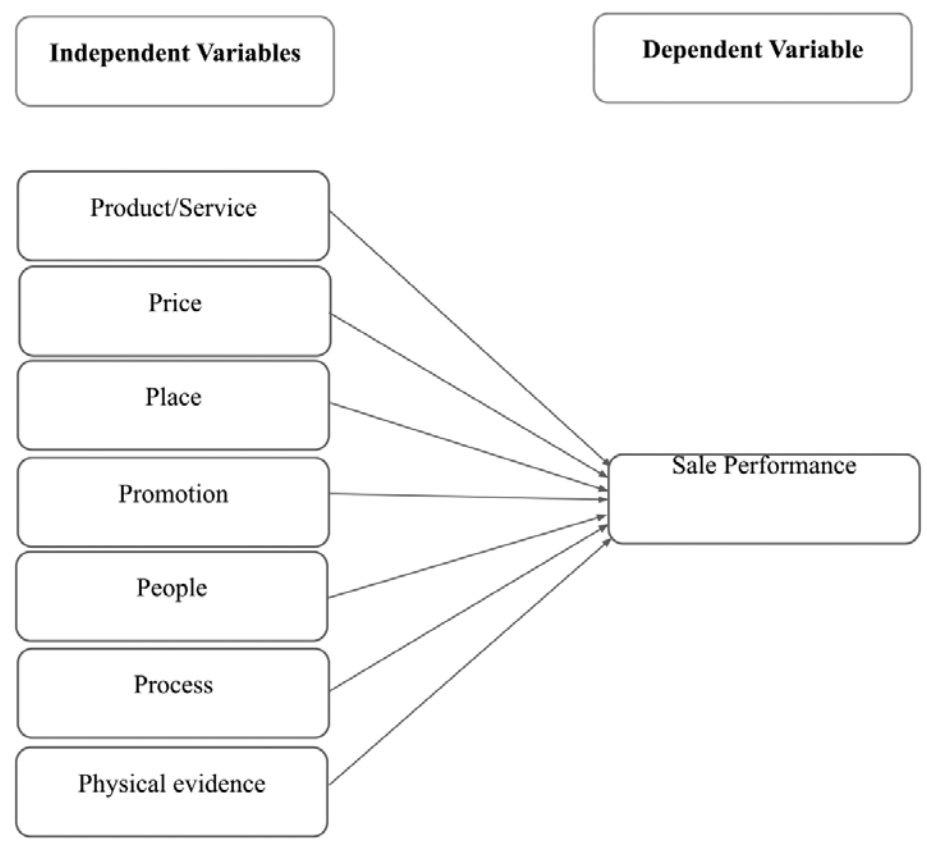
H7: Physical evidence has a significant effect on sales performance.

The 7Ps model, introduced by Booms and Bitner (1981), extends McCarthy's original 4Ps to address the complexity of service industries. This framework offers a comprehensive lens to evaluate marketing effectiveness in service-based businesses such as luxury resorts. While useful, it is often applied alongside segmentation, positioning, and communication strategies for full strategic alignment.

2.3 Conceptual Framework

The conceptual framework illustrates how the independent variables—Product, Price, Promotion, Place, People, Process, and Physical Evidence—interact with the dependent variable, , Sales Performance within the context of Knai Bang Chatt, a luxury resort in Cambodia. These marketing mix elements, commonly referred to as the **7Ps**, form the basis for evaluating how strategic marketing activities impact customer acquisition, retention, and revenue.

Figure 1: Conceptual Framework



3. METHODOLOGY

3.1 Research Design and Approach

A mixed-methods approach was utilized, combining both quantitative and qualitative techniques. Quantitative data were analyzed using descriptive and inferential statistics, while qualitative insights were obtained through key informant interviews. Descriptive statistics (mean, standard deviation, frequencies) and inferential methods, specifically multiple regression analysis, were conducted using SPSS version 22.0 and Microsoft Excel to explore the relationship between the 7Ps of marketing and sales performance.

3.2 Target Population and Sampling

The study focused on 150 individuals, comprising marketing and sales professionals at Knai Bang Chatt Resort and its affiliated Destination Management Companies (DMCs). These participants were selected due to their direct involvement in planning and implementing marketing strategies and their knowledge of market behavior and sales trends.

While customer input was not included, DMC representatives were considered a more reliable source of performance-related insights due to their intermediary role in bookings and travel decisions (Morrison & O'Neill, 2016).

3.3 Sample Size Determination

The sample size was calculated using a standard formula for a known population:

$$n = \frac{N}{1+Ne^2}$$

Where:

n = sample size

N = Population (150)

e = Sampling error (0.5)

1 = Constant (given)

By Substitution:

$$n = \frac{150}{1+150(0.05)^2}$$

$$n = \frac{150}{1+150(0.0025)}$$

$$n = \frac{150}{1+0.375}$$

$$n = \frac{150}{1.375}$$

$$n = 109.09 = 109$$

This yielded a sample size of **109 respondents** to ensure valid statistical inference (Cooper & Schindler, 2014).

3.4 Data Sources

Primary data were collected via structured questionnaires and interviews with staff and partner DMCs. **Secondary data** included internal documents such as sales records, marketing reports, and operational insights from Knai Bang Chatt's management.

3.5 Data Collection Methods

In this research, two primary research tools were employed to collect data for this study. First, survey questionnaires were distributed to 109 marketing and sales staff, designed to assess perceptions of the 7Ps marketing mix and its influence on sales performance. The questionnaire utilized a 5-point Likert scale, ranging from 1 (Very Dissatisfied) to 5 (Very Satisfied), following the approach recommended by Malhotra and Birks (2006). Second, key informant interviews were conducted with executives from Knai Bang Chatt as well as representatives from destination management companies (DMCs). Notably, responses from the CEO, Mr. Jef Moons, and the Marketing Manager, Mr. David Moons, were collected through structured questionnaires that were completed remotely due to scheduling constraints. These tools allowed for a comprehensive understanding of both internal and external perspectives on the resort's marketing strategies.

3.6 Research Instrument Design

The questionnaire was developed in English and structured into three main sections: respondent profile, evaluation of the 7Ps marketing mix, and assessment of their impact on sales performance. The respondent profile section collected basic demographic and professional information, such as the participant's role and level of experience. The second part focused on evaluating each element of the 7Ps—Product, Price, Place, Promotion, People, Process, and Physical Evidence. The final section measured the perceived impact of these elements on the resort's sales performance. To ensure the questionnaire's content validity, the instruments were pre-tested and reviewed by the study supervisor, following Creswell's (2014) recommendations. Additionally, the Content Validity Index (CVI) was applied to confirm that all items were aligned with the research objectives.

Multiple Regression Analysis was used to determine how each of the 7Ps independently influences the dependent variable—**sales performance**. The regression model is represented as:

Formulas for Multiple Regression Analysis - Regression Equation:

$Y = a + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_7 + e Where\ Y = Sales\ Performance$

X_1 = Product/ Service

X_2 = Price

X_3 = Place

X_4 = Promotion

X_5 = People

X_6= Process

X_7 = Physical Evidence

β_1, β_2, β_3, β_4, β_5, β_6, β_7 is are the regression coefficient of the independent variables (7Ps)
a = Intercept term

e = Error term

This technique enables the identification of the most significant predictors of sales performance.

3.7 Validity And Reliability

To ensure methodological rigor:

- Content Validity: The questionnaire was vetted and pre-tested to confirm item relevance.
- Reliability: Internal consistency was tested through a pilot survey. Results indicated stable and dependable metrics (Creswell, 2014).

3.8 Data Gathering Procedure

Respondents were contacted through direct visits, phone calls, and virtual platforms. Questionnaires were administered with instructions emphasizing confidentiality and the importance of full participation. Responses were reviewed and validated prior to analysis.

3.9 Ethical Considerations

Participation was voluntary, and anonymity was guaranteed. Respondents were informed of the study's objectives and provided consent.

4. DATA ANALYSIS

This chapter presents the results of the data analysis conducted to examine the effects of marketing strategy on sales performance at Knai Bang Chatt Resort. The analysis includes quantitative findings based on 113 respondents and qualitative insights from key informant interviews.

4.1 Reliability Of Research Instrument

Cronbach's Alpha was used to measure internal consistency across items. All variables exceeded the threshold of 0.70, indicating high reliability:

Variable	Items	Cronbach's Alpha	Interpretation
Product	7	0.973	Very Reliable
Price	5	0.967	Very Reliable
Place	3	0.962	Very Reliable
Promotion	6	0.969	Very Reliable
People	6	0.970	Very Reliable
Process	7	0.968	Very Reliable
Physical Evidence	6	0.969	Very Reliable
Sales Performance	3	0.948	Very Reliable

4.2 Demographic Profile of Respondents

Among the 113 respondents, 51.3% were male and 48.7% female. The majority were aged 18–30 (64.6%), held a bachelor's degree (59.3%), and had 0–5 years of industry experience (48.7%).

4.3 Descriptive Statistics of Marketing Strategy Components

The study assessed the 7Ps of marketing mix with Likert-scale items. Mean scores suggest general agreement with the effectiveness of most strategies:

- **Product**: Generally agreed (M = 3.41). The resort offers high-quality, diverse, and appealing products.
- **Price**: Somewhat agreed (M = 3.18). Prices are perceived as fair, competitive, and aligned with cost structures.
- **Place**: Somewhat agreed (M = 3.38). Distribution channels and physical access were seen as moderately effective.
- **Promotion**: Mixed results (M = 3.38). Digital marketing and influencer campaigns were used, though ROI remains limited.
- **People**: Strong agreement (M = 3.55). Staff training, service consistency, and empowerment were noted as strengths.
- **Process**: Agreement across all items (M = 3.48). Services are delivered consistently, efficiently, and customized.
- **Physical Evidence**: General agreement (M = 3.42). Ambience, design, and hygiene contributed to customer satisfaction.

4.4 Descriptive Statistics for Sales Performance

Sales performance was rated moderately (M = 3.17). Acquisition and retention of customers were perceived positively, but sales revenue satisfaction was only average.

4.5 Regression Analysis

Model Summary				
Model	R	R Square	Adjusted R Square	Std. The error in the Estimate
1	.881[a]	.777	.762	.49673
a. Predictors: (Constant), Physical Evidence, Price, Process, People, Place, Product/Service, Promotion				

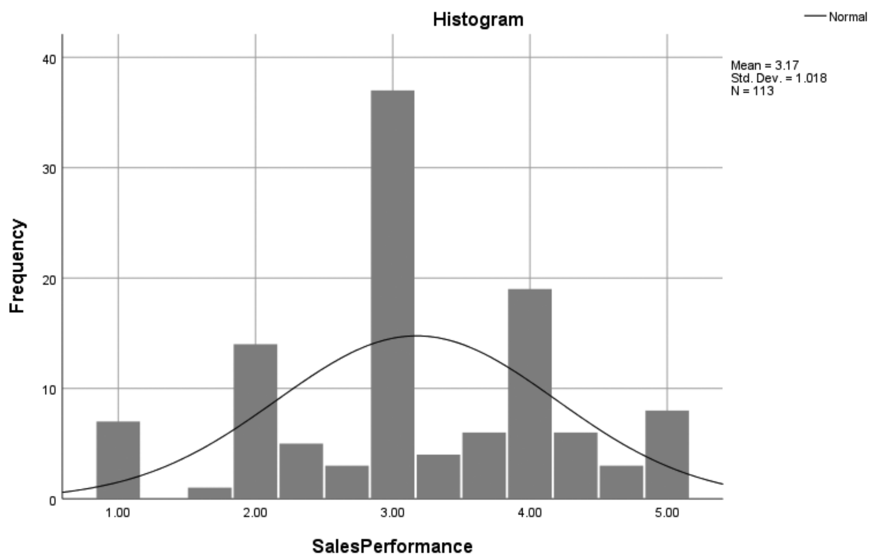
A multiple regression analysis was conducted to assess the extent to which the 7Ps marketing mix elements predict sales performance at Knai Bang Chatt. The model yielded an R value of 0.881 and an R^2 of 0.777, indicating that approximately 77.7% of the variance in sales performance can be explained by the combined effect of the 7Ps. The adjusted R^2 of 0.762 confirms the model's robustness, even after accounting for the number of predictors. The ANOVA results showed that the regression model was statistically significant ($F = 52.174$, $p < .001$), affirming the relevance of the 7Ps framework in this context. Among the individual predictors, Price ($\beta = 0.414$, $p < .001$), People ($\beta = -0.260$, $p = .023$), and Physical Evidence ($\beta = 0.373$, $p = .002$) were found to have a statistically significant impact on sales performance. Conversely, Product, Place, Promotion, and Process did not demonstrate significant predictive value within the model.

Relationship between IV and DV:

Coefficients					
Model	Unstandardized Coefficients	Standardized Coefficients	Beta	T	Sig.
	B	Std. Error			
(Constant)	-0.057	.191		-0.297	.767
Product	.090	.158	.084	.568	.571
Price	.447	.113	.414	3.941	.000
Place	.154	.126	.154	1.218	.226
Promotion	-.019	.167	-0.17	-.115	.909
People	-.274	.118	-.260	-2.315	.023
Process	.191	.127	.172	1.504	1.136
Physical Evidence	.3.98	.128	.373	3.119	.002
a. Dependent Variable: Sales Performance					

4.6 Regression Assumptions

The assumptions for multiple regression were tested to ensure the validity of the model. Normality was confirmed through both a bell-shaped curve and a P-P plot, indicating that the residuals were normally distributed. Homoscedasticity was observed in the scatterplot, where data points were evenly distributed around zero, suggesting consistent variance across the predicted values. Regarding multicollinearity, while most variables were within acceptable ranges, the Product and Promotion variables showed high multicollinearity, with Variance Inflation Factor (VIF) values exceeding 10. Despite this, the overall model maintained acceptable robustness for analysis.



4.7 Qualitative Insights

Interview I: Mr. David Moons, Marketing Manager

Mr. David Moons identified several challenges in managing the marketing strategies of Knai Bang Chatt. One major issue is maintaining brand consistency, especially after rebranding the resort as a full-scale culinary beach destination under Kep West. Targeting local customers post-COVID has proven difficult due to differences in brand perception, pricing sensitivity, and purchasing behavior compared to international guests. Digital marketing also presents hurdles. Although a monthly budget of $1,000 is allocated for ads, platforms like TikTok generated engagement but failed to convert into sales. Therefore, the focus is shifting to Facebook, Instagram, and international PR. New marketing channels, such as Telegram and newsletters, are also being explored for better reach. Influencer marketing has shown success in brand exposure, and plans are in place to scale it further. Lastly, the resort is investing in

arts, music, and cultural events to enhance its brand image, although these initiatives take time to yield results.

Interview II: Mr. Jef Moons, CEO & Founder

Mr. Jef Moons emphasized that Knai Bang Chatt is the only 5-star resort in Kep offering a comprehensive and sustainable cultural experience. Unlike 4-star competitors, the resort provides tailored services and maintains high professional standards.

Feedback is mixed but generally positive. While culturally curious and adventurous travelers love the resort’s offerings, guests seeking modern luxury may find the concept less appealing. Nonetheless, even the latter acknowledge Knai Bang Chatt as the best available option in the area.

To stay relevant, the resort continually collects feedback, holds partner meetings, and adjusts its offerings based on diverse customer needs while maintaining consistent quality and customization.

The resort enjoys a prime location just 2–3 hours from Phnom Penh, with a large beachfront property, gardens, and proximity to Kep’s crab market. This offers a significant advantage over competitors.

Guests appreciate the convenient location and peaceful atmosphere. The site serves as an ideal base for regional travel and is well-connected by multiple transportation options.

Previously, road construction negatively impacted accessibility, pushing guests toward alternatives like Sihanoukville. However, with road improvements completed in 2024, travel to Kep is now more seamless.

Promotions are timed around major holidays and events and span social media, influencer collaborations, email marketing, and the resort's website. Their effectiveness is monitored using engagement, website analytics, email performance, and influencer ROI metrics.

Though comprehensive data is lacking, sales typically rise after promotions, especially in spa and wellness services. Guests also show interest in promotions for future travel plans.

The resort adopts a multi-platform approach. Facebook and TikTok target locals, while Instagram and the website cater to international travelers. Mailchimp and LinkedIn are used for engaging expatriates living in Cambodia.

Processes are well-organized and segmented by customer type. Inquiries are efficiently routed to the appropriate staff, ensuring faster and more personalized responses. Coordination across departments supports smooth service delivery.

Customers value the simplicity of having one point of contact, which reduces confusion. Feedback is regularly collected to fine-tune internal processes, reflecting a strong commitment to continual improvement and high service standards.

4.8 Discussion of Hypothesis Testing

Table 1: Testing the Hypotheses

No	Hypothesis	P-Value	Results
1	Product has a significant effect on sales performance	.571	Rejected
2	Price has a significant effect on sales performance	.000	Accepted
3	Place has a significant effect on sales performance	.226	Rejected
4	Promotion has a significant effect on sales performance	.909	Rejected
5	People have a significant effect on sales performance	.023	Accepted
6	Process has a significant effect on sales performance	.136	Rejected
7	Physical evidence has a significant effect on sales performance	.002	Accepted

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H1: The analysis found no significant effect of the product on sales performance. With a p-value of 0.571, the result is greater than the commonly accepted significance levels of 0.05 and 0.10. This indicates insufficient evidence to support the hypothesis that the product significantly influences sales performance. From a theoretical perspective, the product encompasses both tangible and intangible offerings designed to satisfy customer needs. High-quality products, innovation, differentiation, and alignment with customer preferences are widely acknowledged in literature as factors that enhance customer satisfaction, loyalty, and sales performance (Kotler & Armstrong, 2018; Zeithaml, 1988). While theory suggests that a well-accepted product can contribute to increased sales through differentiation and added value, the findings in this study do not support a statistically significant relationship in this context. This result may reflect specific characteristics of the product offerings, the market conditions, or the competitive environment in the hospitality industry. For example, if competitors provide similar services or if customers prioritize price, promotion, or other factors over product attributes, the perceived impact of the product on sales performance might be reduced. Overall, while prior research emphasizes the role of product quality and differentiation in driving sales, this study's findings indicate that the product does not have a direct, significant effect on sales performance in the context analyzed. This suggests a need to consider other elements of the marketing mix or external factors in enhancing sales outcomes.

H2: The analysis found a significant effect of price on sales performance. With a p-value of 0.000, the result is less than the commonly accepted significance levels of 0.05 and 0.10. This provides strong evidence to support the hypothesis that price significantly influences sales performance. From a theoretical perspective, price is the only revenue-generating element in the marketing mix, while all other elements represent costs. It plays a pivotal role in covering expenses, generating profit, and positioning the product or service within the market. Research suggests that price serves as a critical determinant of customer satisfaction and behavior. Effective pricing strategies, such as competitive pricing, discount offers, and value-based pricing, are vital in driving sales performance by aligning with customer perceptions of value and market demand (Virvilaite et al., 2009; Kotler & Armstrong, 2018). The findings align with prior research, emphasizing that price directly impacts customer purchasing decisions, satisfaction, and loyalty. A well-calibrated pricing approach not only incentivizes purchases but also reflects market positioning, enhancing competitiveness and revenue.

Conversely, mispricing whether too high or too low—may deter customers, affecting sales adversely. In this study, the significant relationship between price and sales performance underscores the importance of pricing strategies that balance customer expectations, market conditions, and business objectives. The results affirm that price is a key lever for optimizing sales outcomes and achieving sustainable growth in the hospitality sector.

H3: The analysis found no significant effect of Place (distribution channels) on sales performance, as indicated by a p-value of 0.226. This result exceeds the common significance levels of 0.05 and 0.10, providing insufficient evidence to support the hypothesis that Place significantly influences sales performance. From a theoretical perspective, Place involves the strategic decisions regarding how a product or service is made accessible to the target market. Distribution channels play a critical role in ensuring that products reach customers efficiently and effectively, enhancing visibility and convenience. Effective distribution strategies, such as a mix of direct sales and intermediaries, are known to contribute significantly to sales growth (Coughlan et al., 2006; Kotler & Armstrong, 2018). However, in this study, the absence of a significant relationship between Place and sales performance suggests that other factors, such as Price, People, or even promotional strategies, may have a stronger influence on sales outcomes at Knai Bang Chatt Resort. Although research generally supports the importance of distribution channels in driving sales, the findings here indicate that the resort's current distribution approach may not be the determining factor for sales success in this particular context. The lack of a statistically significant effect from Place highlights the need for further investigation into other elements of the marketing mix and their potential impact on sales. It also suggests that, in the case of Knai Bang Chatt, other aspects like product quality, customer experience, and pricing strategies might be playing a more pivotal role in influencing sales performance. This outcome calls for a broader exploration of the factors that drive sales in the hospitality sector.

H4: The analysis found no significant effect of promotion on sales performance, with a p-value of 0.909, the results indicate that promotion does not significantly impact sales performance in this context. In fact, the negative coefficient of -0.019 suggests a detrimental effect, implying that the current promotional strategies may be counterproductive and fail to drive desired sales outcomes. Additionally, while other variables such as price and physical evidence demonstrated significant positive relationships with sales performance, the ineffective nature of the promotion strategies raises concerns. This finding may suggest that the promotional activities currently employed are not aligned with consumer preferences or that the messaging lacks resonance with the target audience. These results underscore the necessity for businesses to thoroughly evaluate and recalibrate their promotional efforts. It is crucial to ensure that promotional tools and channels effectively engage the target market and contribute positively to sales performance. Continuous assessment and adjustment of promotional strategies are essential for optimizing their impact. Overall, while promotion is a vital component of the marketing mix, its negative relationship with sales performance in this instance highlights the importance of strategic alignment with customer expectations and market dynamics.

H5: The analysis found a significant effect of people on sales performance, resulting in a p-value of 0.023. While this p-value is indeed less than 0.05, indicating a relationship, the overall regression results reveal a negative impact of the People variable on sales performance. Specifically, the coefficient for People was -0.274, suggesting that, contrary to expectations, an increase in staff engagement did not correlate with an increase in sales performance.

This finding is intriguing and prompts a reevaluation of the assumption that employee interactions are always beneficial for sales outcomes. It indicates that the effectiveness of personnel in driving sales may be contingent on other underlying factors, such as organizational processes, marketing strategies, or even external market conditions. The negative impact might stem from inconsistencies in service delivery or a lack of alignment between employee capabilities and customer expectations. As noted by Zeithaml, Bitner, and Gremler (2018), while effective staff and superior customer service can enhance customer satisfaction and loyalty, these benefits are not guaranteed and may vary based on the quality-of-service interactions and the context in which they occur. Moreover, the literature highlights that various factors beyond direct employee interaction can significantly influence sales performance. For example, technological advancements, streamlined processes, and robust marketing strategies may compensate for or even overshadow the necessity of direct employee engagement in driving sales growth (Kotler & Keller, 2016; Verhoef et al., 2015). This underscores the notion that while human interaction is crucial, it is not the sole determinant of success in sales performance. The implications of these findings suggest that businesses should adopt a more nuanced approach to understanding the role of staff in sales performance. Investments in employee training and development remain important, yet they should be complemented by strategies that address broader organizational dynamics and market conditions. Organizations may need to explore ways to enhance operational efficiencies and improve technological interfaces, enabling customers to have satisfactory experiences even when staff engagement is minimal. In summary, the negative significance associated with the People variable highlights the complexity of sales performance in contemporary business environments. Future research should further investigate the interplay between employee engagement and other influential factors to provide a clearer understanding of how organizations can optimize sales performance in a multifaceted landscape.

H6: The analysis found no significant effect of process on sales performance, with a p-value of 0.136. The p-value of 0.136 indicates a lack of significant evidence to support the hypothesis that process affects sales performance. This suggests that the processes involved in delivering the product or service do not significantly influence sales outcomes in the analyzed data. However, it is important to note that process improvements can still enhance operational efficiency and customer satisfaction, even if they do not directly impact sales performance (Johnston & Clark, 2008). Businesses should continue to refine their processes to ensure they can meet customer expectations and adapt to changing market conditions.

H7: The analysis found a significant effect of physical evidence on sales performance, with a p-value of 0.002. The p-value of 0.002 is less than

both 0.05 and 0.10, indicating strong evidence that physical evidence significantly affects sales performance. This finding highlights the importance of tangible factors, such as product packaging, physical environment, and other sensory attributes, in influencing consumer purchasing decisions. The presentation and ambiance of a retail space, for example, can significantly impact consumer perceptions and behavior (Bitner, 1992). Businesses should focus on creating appealing physical environments and leveraging sensory marketing to enhance the overall customer experience and drive sales. Based on the hypothesis tests, we conclude that price, people, and physical evidence are significant factors affecting sales performance. These factors have p-values less than 0.05, indicating strong statistical evidence of their impact. On the other hand, product, place, promotion, and process do not show significant effects on sales performance, as their p-values are greater than both the 0.05 and 0.10 significance levels. This analysis underscores the critical role of pricing strategies, customer service quality, and tangible attributes in driving sales performance, while also suggesting that other elements of the marketing mix may require different approaches or improvements to enhance their impact on sales.

Among all respondents, 51.3% (58 individuals) were male, and 48.7% (55 individuals) were female. The quantitative analysis, using SPSS for multiple regression, indicated that marketing strategies significantly influence sales performance, with price, customer service, and physical evidence emerging as key drivers. Conversely, product, place, promotion, and process variables showed no significant impact on sales performance. Key challenges identified include budget constraints, competition, and a lack of advanced digital marketing tools. These findings suggest a need for a holistic approach to enhance marketing strategy effectiveness and optimize sales outcomes. Future research should explore the effects of digital transformation and external factors on sales performance.

In addition of survey 113 respondents, Interviews with Mr. Jef Moons and Mr. David provided complementary insights into Knai Bang Chatt's market positioning. Mr. Jef Moons highlighted the resort's unique 5-star offering, commitment to sustainability, and exceptional cultural experiences as key differentiators. Meanwhile, Mr. David emphasized the strategic location of the resort and its effective promotional strategies. Both interviews underscored the importance of Knai Bang Chatt's integration of cultural experiences with high service standards and the role of its location and promotional activities in enhancing customer engagement and satisfaction.

The combined analysis reveals that Knai Bang Chatt's emphasis on sustainability and high-quality cultural experiences sets it apart from competitors. The resort's strategic location adds to its appeal by offering both convenience and access to local attractions. Effective promotional activities, including digital marketing and seasonal offers, are crucial for driving customer engagement and sales. The well-structured sales and service processes further contribute to operational efficiency and customer satisfaction.

In summary, the integration of quantitative data and qualitative insights from the interviews has provided a comprehensive understanding of Knai Bang Chatt's operations and strategies. The findings underscore the importance of leveraging unique strengths and adapting to market

changes to achieve continued success in the competitive hospitality landscape.

5. CONCLUSION AND RECOMMENDATIONS

5.1 Conclusion

This study examined the impact of marketing strategies on sales performance at Knai Bang Chatt Resort, utilizing the 7Ps framework (Product, Price, Place, Promotion, People, Process, and Physical Evidence). Based on data collected from 113 respondents, with near gender balance and a majority aged 18–30, the study found three marketing mix elements—**Price**, **People**, and **Physical Evidence**—to significantly influence sales performance ($p < 0.05$).

- **Price** demonstrated the strongest positive effect on sales. Competitive and value-based pricing strategies were critical in influencing consumer decisions, aligning with established marketing theories.
- **People (Customer Service)**, while significant, revealed a negative coefficient, suggesting possible inconsistencies in service quality or alignment with customer expectations.
- **Physical Evidence**, such as ambiance, cleanliness, and branding elements, was also a strong predictor of sales performance, supporting the role of tangible cues in enhancing customer perceptions.

On the other hand, **Product**, **Place**, **Promotion**, and **Process** were not found to significantly impact sales performance. Despite Knai Bang Chatt's unique offerings, strategic location, and comprehensive service processes, these elements did not show statistical influence in the regression model. This suggests that while they contribute to the overall guest experience, they may not be the primary drivers of sales in the current market context.

Interview insights from the CEO and Marketing Manager supported these findings. Notably, challenges in aligning product features with guest expectations and promotional campaigns with target audience behavior were highlighted. Knai Bang Chatt's efforts to reposition itself post-COVID from a "barefoot luxury" resort to a culinary beach destination revealed branding inconsistencies and digital targeting challenges, particularly with local versus international market segments.

5.2 Recommendations

Based on the research findings, the researcher would like to offer some recommendations to Knai Bang Chatt by Kep West, with the aim of helping the resort improve its marketing strategies and sales performance.

- **Refine Pricing Strategies**: Continue applying dynamic and psychological pricing to better match customer willingness to pay. Offer special deals during low seasons and reward returning guests with loyalty discounts.
- **Enhance Customer Service Training**: Reassess staff training and engagement to improve alignment with guest expectations. Focus on personalized service and emotional intelligence to elevate guest satisfaction.
- **Invest in Physical Evidence**: Upgrade ambiance and sensory cues across facilities. Introduce signature scenting, curated music,

and branded design elements in rooms and public spaces to reinforce a premium image.
- **Reassess Product Strategy**: Conduct market research to understand evolving customer preferences. Align offerings with wellness, sustainability, and experiential trends to improve product-market fit.
- **Revise Promotional Strategies**: Audit digital campaigns for effectiveness. Shift toward storytelling and emotional branding. Use influencer partnerships strategically and expand engagement on high-ROI platforms.
- **Explore Digital Distribution Channels**: Enhance direct booking platforms, optimize mobile and web interfaces, and expand presence on OTAs. Consider a branded mobile app to improve guest interactions and bookings.
- **Optimize Internal Processes**: Invest in technology to automate and streamline guest services. While process improvements may not directly increase sales, they enhance satisfaction and loyalty.

5.3 Limitations And Future Research

While this research provided valuable insights into the impact of the 7Ps framework on sales performance at Knai Bang Chatt, several limitations need to be addressed to strengthen future studies.

Key limitations include a modest sample size and restricted interview scope. Only two internal stakeholders were interviewed, potentially excluding relevant operational insights. Moreover, the study did not account for external influences such as economic conditions, competitive activity, or digital trends.

Future research should aim to expand the diversity of the sample by including a broader range of participants, particularly frontline staff who engage directly with customers and may offer unique operational insights. It is also important to incorporate macroeconomic and competitive variables, as these external factors can significantly influence the effectiveness of marketing strategies. In addition, future studies should explore the evolving role of digital marketing and the integration of omnichannel strategies, which are increasingly vital in the hospitality industry. Conducting longitudinal research would be beneficial in evaluating the long-term impact of marketing strategies on sales performance. Lastly, researchers should revisit the variables that were rejected in this study—namely Product, Place, Promotion, and Process—to determine whether their impact may vary under different market conditions or in other resort settings.

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THE CHALLENGES FACED BY STREET COFFEE VENDOR IN BUSINESS REGISTRATION

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ABSTRACT

Street coffee vendors are a vital part of Phnom Penh's informal economy but face significant barriers to formal business registration. This study investigates the specific challenges that prevent vendors in Sangkat Boeung Keng Kang from registering and how these barriers influence their decision to remain unregistered. While existing literature focuses on SMEs, little attention has been given to street vendors. Using qualitative methods, including interviews with 25 vendors in BKK1 and BKK2, the study finds that bureaucratic complexity, financial constraints, and fear of increased regulation discourage registration. The lack of perceived benefits and limited institutional support further contribute to their reluctance. These findings highlight the need for targeted policy interventions to simplify registration, offer financial and legal assistance, and promote formalization as a path to inclusive economic development.

Keywords: *Street vendors, business registration, informal economy, financial barriers, bureaucracy, legal insecurity, formalization.*

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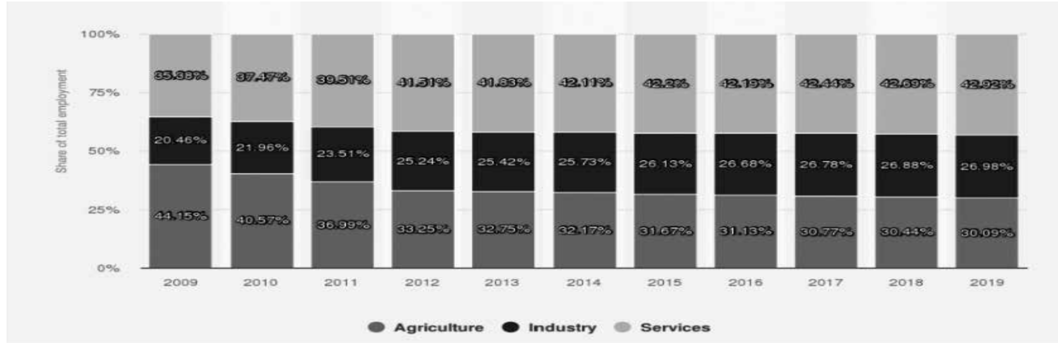
1. INTRODUCTION

1.1 Background of the Study

MSMEs are the economic backbone of Cambodia, comprising 99.8% of all enterprises (UNDESA, 2020), with 501,612 classified as micro-enterprises out of a total of 512,871 businesses (Cambodia Intercensal Economic Survey, 2014). These enterprises contributed approximately 58% to the national GDP and generated over 70% of total employment in 2018 (Ministry of Industry and Handicraft, 2018). However, a major issue remains: most MSMEs operate informally. Only 3.5% are formally registered with the Ministry of Commerce (UNDESA, 2020; ADB, 2017). The informal nature of these businesses severely restricts their access to formal credit, legal protection, and government support (OECD, 2020). Female workers are especially impacted, with 79% engaged in the informal sector compared to 58% of male workers (ADB, 2017). Figure 1 illustrates the shifting employment distribution in Cambodia's economic sectors between 2009 and 2019 (United Nations, 2020), further emphasizing the role MSMEs play in employment, particularly as urbanization increases. The Cambodian government acknowledges this issue and has introduced reforms such as the Cambodia Industrial Development Policy (IDP) 2015–2025, which aims to formalize 80–95% of MSMEs by 2025 (UNDESA, 2020). While these policies show promise, implementation remains challenging due to the complexity, cost, and opacity of the registration process.

Figure 1: Distribution of Employment by Economic Sector in Cambodia, 2009 to 2019 (United Nations, 2020)



Within this national context, micro-enterprises such as street coffee vendors in BKK1 and BKK2 are thriving. These vendors have creatively adapted to Cambodia's evolving coffee culture, establishing mobile stalls in high-traffic urban zones that appeal to diverse customer groups office workers, students, and tourists. Many vendors use branded umbrellas, signage, and other modern design elements to stand out, blending traditional street vending with a café-like experience. Figure 2 shows a typical coffee stall in Phnom Penh, demonstrating the mix of informal structure and branded aesthetics that characterize these businesses. These vendors not only meet daily consumer needs but also create informal social spaces, contributing to the community and local economy. With minimal capital investment, they offer an accessible path to entrepreneurship for individuals with limited resources.

Figure 2: Image of street café stall in Phnom Penh

However, despite their growing popularity and cultural relevance, these vendors operate without business licenses or formal recognition. According to the National Institute of Statistics (2021), 88.3% of Cambodia's workforce is in informal employment, with 77.4% employed directly in the informal sector. The high rate of informality among street vendors stems from legal and institutional barriers to registration. In 2020, the Ministry of Commerce launched a campaign to encourage registration by simplifying procedures and issuing permits (Ministry of Commerce, 2020). While this initiative is particularly timely given rising real estate pressures in areas like BKK1 and BKK2, the formalization process remains burdensome. It requires vendors to navigate a maze of ministries and institutions for licenses and permits, which many view as costly, time-consuming, and unclear. As a result, a significant number of vendors opt to remain unregistered, even at the expense of legal protection and financial opportunity. Their reluctance reflects a broader tension in Cambodia's informal sector: the desire for legitimacy and

stability is outweighed by the perceived risks and burdens of formalization.

1.2. Statement of the Problem

Cambodia's informal economy plays a dominant role in national employment and economic activity. According to the National Institute of Statistics (2021), approximately 88.3% of the workforce is in informal employment, with 77.4% directly engaged in the informal sector. This widespread informality particularly among micro, small, and medium enterprises (MSMEs) poses major challenges to economic development. Street vendors, especially micro-enterprises like those in Sangkat Boeung Keng Kang (BKK), face significant difficulties in formalizing their operations. Despite their vital contributions to local commerce and community livelihoods, these businesses lack access to financial services, legal protections, and government support due to their informal status. Although the Ministry of Commerce recorded 54,384 formally registered enterprises in 2022, many micro-enterprises remain unregistered because of the complex, costly, and opaque registration process (Ministry of Commerce, 2022). The absence of formal registration limits these vendors' growth potential and increases their vulnerability to legal and financial risks. Without formal recognition, they are excluded from participating fully in the economy, unable to scale, secure funding, or cope with economic shocks. This situation is particularly concerning in light of the Cambodia Industrial Development Policy (IDP) 2015–2025, which aims to formalize 80–95% of MSMEs by 2025 (UNDESA, 2020).

Although recent government reforms aim to simplify the registration process, challenges persist on the ground. Existing literature often overlooks the specific barriers faced by urban micro-enterprises like street coffee vendors in BKK, focusing instead on broader informal sector issues. Urban vendors face unique struggles, including navigating bureaucratic systems, inconsistent regulatory enforcement, and bearing the financial burdens of formalization (Asian Development Bank, 2017). This research aims to fill that gap by identifying the specific challenges hindering the formalization of street coffee vendors in Sangkat BKK. Understanding these issues is critical for shaping effective, targeted policy interventions that promote resilience and sustainable economic participation for Cambodia's micro-enterprises.

1.3. Research Questions

This study focuses on the following research questions:

i. What are the challenges that hinder the business registration of street coffee vendors in Sangkat BKK?

ii. How do these challenges affect the vendors' decisions to remain unregistered?

1.4 Research Objectives

The objectives of this study are:

i. To identify the specific challenges faced by street coffee vendors in registering their businesses.

ii. To analyze the effects of these challenges on the vendors' business operations and decision-making.

1.5 Scope and Limitations

This study investigates the challenges that hinder the business registration of street coffee vendors in Phnom Penh, with a specific focus on Sangkat BKK1 and BKK2. These areas are known for their vibrant

street vending culture, where small-scale coffee vendors have transformed traditional mobile stalls into creatively branded, semi-permanent spaces. These coffee stalls, often located in high-traffic zones, blend informal charm with café aesthetics and have become a hallmark of the local economy. The study aims to answer two primary research questions: (1) What are the challenges that hinder the business registration of street coffee vendors in Sangkat BKK? and (2) How do these challenges affect their decision to remain unregistered? Data collection relies on in-depth interviews with 25 vendors operating in BKK1 and BKK2. However, this research has several limitations. First, its geographical scope is limited to two urban districts, which may reduce the generalizability of findings to other areas of Phnom Penh or Cambodia. Second, the study depends on self-reported data, which may be subject to bias due to respondents' concerns about legal consequences or hopes for assistance. Lastly, while the study focuses on business registration barriers, it may not fully capture other factors influencing vendor behavior and business operations. Despite these limitations, the research offers valuable insights into an underexplored area of Cambodia's informal economy and highlights the need for broader future research.

2. LITERATURE REVIEW

2.1 Global Challenges of Business Registration of Street Coffee Vendors

Street coffee vendors around the world face a range of challenges that hinder their ability to register their businesses formally. One of the most significant barriers is bureaucratic complexity. As Pileri (2022) explains, in cities such as New York and Washington, DC, vendors must navigate numerous government agencies, each with its own regulatory requirements. This complexity is often overwhelming for small-scale vendors who lack the time, knowledge, or financial capacity to comply. Another major barrier is the lack of awareness about the benefits of formalization. Uddin (2021) found that in Chittagong, Bangladesh, many vendors operate without understanding how business registration can provide legal protection and access to services such as credit. This knowledge gap leaves many vendors unaware of the potential long-term advantages of joining the formal economy. Financial constraints further discourage formalization. Maneepong and Walsh (2013) reported that in Bangkok, the combined costs of permits, licenses, and ongoing compliance can amount to as much as 20% of a vendor's annual income, making the process prohibitively expensive for many. Additionally, vendors often lack access to formal financial services, leaving them unable to afford upfront registration costs. Legal insecurity and harassment are also key deterrents. In Phnom Penh, vendors frequently experience raids and the confiscation of goods by authorities, fostering a climate of fear and mistrust (Sekhani, Mohan, & Medipally, 2019). Similar issues occur in Nairobi, Kenya, where registering a business can take an average of 32 days and numerous visits to different offices (Onego et al., 2023). A related study in India revealed that only 30% of vendors were aware of the benefits of formalization (Sekhani et al., 2019), further illustrating the global knowledge gap. In Phnom Penh specifically, 60% of street vendors have reported experiencing harassment from officials, significantly discouraging formalization efforts (Sekhani et al., 2019). These combined challenges bureaucratic

hurdles, financial burdens, low awareness, and legal risks create an environment where the perceived costs and risks of registration outweigh the benefits. Consequently, many vendors choose to remain in the informal economy as a means of survival and operational flexibility.

2.2 Case Studies in Developing Countries Similar to Cambodia

Countries like India, Zambia, Vietnam, and the Philippines share similar challenges with Cambodia regarding the formalization of street vendors. These case studies emphasize the need for simplified registration processes, financial support, improved infrastructure, and consistent legal protection. They offer valuable insights for Cambodia in shaping policies to support the integration of street vendors into the formal economy.

2.2.1 India

India's vast informal street vending sector supports millions of livelihoods but faces bureaucratic hurdles, high registration costs, and frequent harassment. Bhowmik (2005) notes that vendors often struggle with multi-layered licensing processes and limited access to credit, which discourages formalization. In response, the government enacted the Street Vendors (Protection of Livelihood and Regulation of Street Vending) Act, 2014, aimed at safeguarding vendor rights and simplifying procedures. NGOs like NASVI have also played a vital role in awareness and support. While the Act has led to some improvements, inconsistent enforcement across states remains a key issue.

2.2.2 Zambia

Street vending is a major economic activity in urban Zambia, particularly Lusaka. Vendors face infrastructure gaps, limited vending zones, financial constraints, and harassment. Tambudzai (2020) highlights the absence of designated vending areas and the lack of access to credit. Government initiatives, supported by NGOs, have included zoning programs, vendor training, and legal assistance, which have improved awareness and infrastructure in some areas. Nonetheless, financial and legal challenges continue to hinder widespread formalization, requiring sustained multi-stakeholder support.

2.2.3 Vietnam

In Vietnam, cities like Hanoi and Ho Chi Minh City rely heavily on street vending for affordable urban services. However, vendors struggle with complex licensing, high fees, and societal stigma. Turner et al. (2021) describes how fragmented regulations and lack of credit access create significant barriers. Social perceptions further discourage engagement with formal institutions. Government and NGO efforts have eased some bureaucratic burdens, but persistent financial and cultural challenges highlight the need for long-term, inclusive support strategies.

2.2.4 Philippines

Street vendors in the Philippines, especially in Manila and Cebu, face regulatory complexity, financial strain, and legal harassment. Rocamora (2017) reports that vendors often need multiple permits and face enforcement issues that deter registration. Government and NGO programs aim to simplify licensing and provide financial aid and legal advocacy. While these initiatives have raised awareness and improved some procedures, many vendors still experience economic and legal vulnerabilities. Continued reform and targeted outreach are necessary to foster a more secure environment for street entrepreneurs.

2.3 Challenges Faced by Informal Enterprises in Cambodia

Informal enterprises are a major component of Cambodia's economy, yet they operate in an environment marked by systemic financial and regulatory challenges that hinder their growth and sustainability. These businesses often emerge out of necessity and remain informal due to barriers that are deeply embedded in the country’s economic framework. A key challenge is limited access to formal financial services. Without registration, these enterprises are excluded from loans and credit lines from formal institutions, forcing them to depend on unstable sources like personal savings or high-interest informal loans. This financial exclusion stifles growth and increases vulnerability to economic shocks, reinforcing their informal status (UNDESA, 2020). Compounding this is Cambodia’s fragmented and complex regulatory environment. Formalizing a business can require up to 99 days and involve acquiring as many as 75 licenses an overwhelming process for small vendors with limited resources. As a result, many opt to remain informal to avoid bureaucratic and financial burdens (UNDESA, 2020). Compliance costs also deter formalization. The standard corporate income tax is 20% of profit or 1% of turnover, with additional VAT and other fees. The tax registration process alone can cost up to KHR 400,000 (approximately USD 98.72), a significant expense for micro and small enterprises (MEF, 2020). Ongoing tax filings and audit obligations further discourage vendors from registering. Informal status also restricts market access. Without legal recognition, businesses cannot obtain export licenses or participate in global value chains, severely limiting their growth potential (UNDESA, 2020). This lack of access is both a cause and consequence of informality, keeping enterprises confined to small, local markets. Legal insecurity further deters registration. Unregistered vendors risk fines, goods confiscation, and forced closure. Fear of unpredictable enforcement discourages engagement with the formal system (Sekhani, Mohan, & Medipally, 2019). Instead, many prefer to operate "in the shadows," despite the risks, to avoid the burdens of formal compliance. Finally, informal enterprises are typically excluded from government support programs, including tax incentives, business development services, and social security benefits. This exclusion deepens their economic vulnerability and denies them tools essential for long-term growth (UNDESA, 2020). In sum, the persistence of informality in Cambodia is both cause and effect: financial exclusion, regulatory complexity, high compliance costs, restricted markets, and legal insecurity form a self-reinforcing cycle. While informality may offer immediate income opportunities, it traps businesses in low productivity and limits their ability to scale sustainably.

2.4 Theoretical Review

Understanding the challenges of business registration among street coffee vendors requires engagement with various theoretical perspectives that explain the dynamics of informality, regulatory compliance, and decision-making behavior. This section presents key theories across three domains: the informal economy, business registration, and behavioral economics.

Table: Theoretical Frameworks on Informal Business Registration

Theory	Key Scholars	Main Ideas	Application to Street Coffee Vendors
Dual Economy Theory	Arthur Lewis (1954)	Economy is split into formal (regulated) and informal (unregulated) sectors.	Vendors use the informal sector as a survival strategy due to exclusion from the formal labor market.
Informal Economy Theory	Keith Hart (1973), Hernando de Soto (1989)	Informal economies persist due to excessive regulations and lack of access to formal jobs.	Vendors avoid formalization because the system is too complex, costly, and inaccessible.
Cost-Benefit Analysis	–	People make decisions by comparing costs and benefits.	Vendors remain informal because registration costs (fees, time) outweigh uncertain benefits.
Regulatory Compliance Theory	Tom Tyler (1990), John Braithwaite (2003)	Compliance is higher when rules are perceived as fair and transparent.	Complex, unclear rules and harsh enforcement discourage vendors from registering their businesses.
Rational Choice Theory	–	Individuals act rationally to maximize personal benefits.	Vendors assess whether registering is “worth it” and often decide the costs are too high.
Behavioral Economics	Kahneman & Tversky (1979)	Decisions are influenced by cognitive biases like loss aversion and status quo bias.	Vendors fear losses (cost, control) more than they value potential benefits, sticking with informality.

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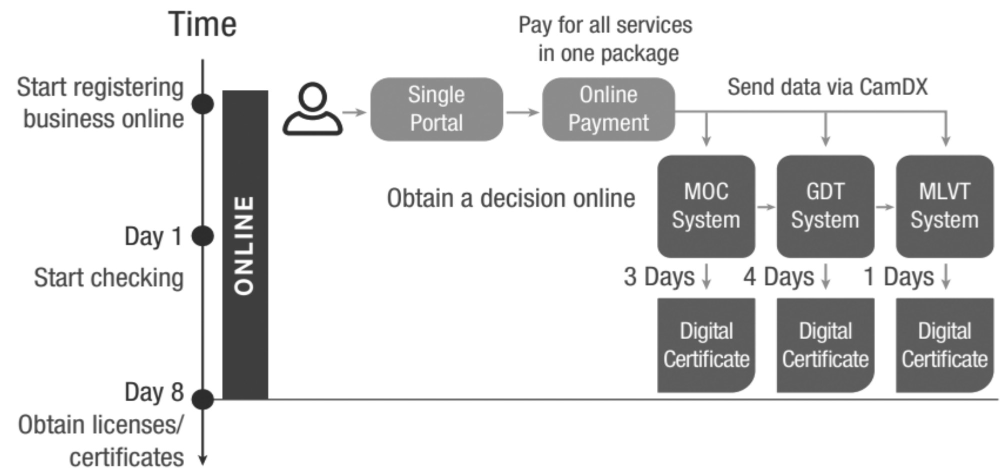
3. BUSINESS REGISTRATION PROCEDURES IN CAMBODIA

Historically, the business registration process in Cambodia was administratively burdensome. Entrepreneurs were required to interact separately with various ministries, including the Ministry of Commerce (MoC), the General Department of Taxation (GDT), and the Ministry of Labour and Vocational Training (MLVT). Each institution imposed unique requirements, leading to redundant documentation, extended approval timelines, high registration costs, and a lack of institutional coordination. These challenges disproportionately affected micro-enterprises and informal vendors, who often lacked the resources to navigate such a complex system. In response, the Royal Government of Cambodia launched the Single Portal system in 2020. This digital platform integrates the services of MoC, GDT, and MLVT, enabling business owners to complete all registration procedures through a unified online interface. The Single Portal significantly reduces administrative burdens, consolidates fees, and shortens the registration timeline to a maximum of eight working days. It also allows for digital issuance of business licenses and certificates, enhancing accessibility and security. A central element of this reform is illustrated in Figure 3: New Online Business Registration Procedure, which visually presents the streamlined steps involved in the Single Portal process. This figure demonstrates how business owners now engage with a single digital entry point rather than navigating multiple disconnected agencies, marking a transformative shift in Cambodia's business environment.

Figure 3: New Online Business Registration Procedure



Moreover, the chapter outlines specific documentation requirements for various types of enterprises companies, foreign branches, sole proprietorships, and partnerships. These documents include proof of address (land title or lease), identification documents, corporate structure records, and tax-related materials. The submission of high-quality, original-format digital documents is crucial, as incomplete or illegible files can lead to delays or rejections without refund. In terms of cost, registration fees vary by business type and size. The Ministry of Commerce charges between USD 51.25 and USD 258.75, while the GDT's tax registration and patent tax range from USD 55 for small taxpayers to USD 725 for large enterprises. The MLVT applies a flat fee of approximately USD 30 for the notice of enterprise opening. A comparative analysis between the former and current procedures highlights significant improvements. Previously, business registration could take several weeks or even months; now, entrepreneurs can expect to complete the process within a few days. The integration of institutional systems has eliminated redundancy, reduced costs, and improved efficiency key developments in promoting formal economic participation. Despite these advancements, the chapter notes persistent challenges. Limited digital literacy and access to technology remain major barriers for small business owners, especially in rural areas and within the informal sector. Moreover, some street vendors may still perceive formalization as financially risky or legally threatening, particularly given their vulnerable status. In sum, Cambodia's transition to the Single Portal system represents a critical step toward improving the national business climate. By simplifying procedures, reducing costs, and enabling digital access, the government has made significant progress in lowering the barriers to formalization. However, continued investment in digital training, awareness campaigns, and inclusive policy support is essential to ensure that all entrepreneurs especially those operating informally can fully benefit from these reforms.

4. METHODOLOGY

This study uses a qualitative approach to understand the challenges faced by street coffee vendors in registering their businesses. A multiple case study method was used to explore real-life situations in different settings. Two sampling methods were used:

Sampling Method	Description
Purposive Sampling	Selected vendors who had experience and could provide useful insights.
Convenience Sampling	Chose vendors who were easily reachable and available for interviews.

This combination ensured that the sample was both relevant and accessible. The study interviewed 25 street coffee vendors, which is above the minimum of 12 interviews suggested for qualitative research (Marshall et al., 2013), helping ensure data richness. Data was collected through semi-structured interviews, using an interview guide with open-ended questions.

Interview Questions
1. How long have you been operating?
2. What do you know about the benefits of registering?
3. Why have you not registered your business?
4. What challenges do you face in registration?
5. How do these challenges affect your decision to stay informal?

A pilot test was done with a few vendors to ensure the questions were clear. The study used thematic analysis (Braun & Clarke, 2006), which involves identifying patterns or themes in the interview data.

Step	Action
1. Familiarization	Read and re-read interview transcripts
2. Coding	Highlight important ideas or repeated topics
3. Theme Development	Group similar codes into larger categories (themes)
4. Review & Refine Themes	Ensure themes clearly represent the data
5. Final Report	Connect findings to research questions and existing studies

All participants gave informed consent, were told they could withdraw at any time, and were assured that their information would remain confidential.

5. DISCUSSION OF FINDINGS

The results of a qualitative inquiry into the challenges hindering business registration among 25 street coffee vendors operating in Sangkat Boeung Keng Kang (BKK), Phnom Penh.

Category	Key Challenges/Impacts	Details/Keywords	Percentage
Perceived Complexity	*Registration process seen as overly complicated, difficult to understand, and unclear.*	*"Too many steps" (Vendor 1), "Confusing process" (Vendor 2, Vendor 5), "Lack of education to understand" (Vendor 10).*	*40%*
Financial Barriers	*High costs and ongoing financial obligations associated with formalization are prohibitive for vendors.*	*"Can't afford fees" (Vendor 3), "Fear of future taxes" (Vendor 6), "Costs would hurt business" (Vendor 8), "Ongoing expenses" (Vendor 12).*	*30%*
Lack of Perceived Benefits	*Vendors are skeptical of the tangible advantages of registration and see no direct benefit to their business growth.*	*"Won't help business grow" (Vendor 4), "Customers don't care about registration" (Vendor 9), "No visible advantage" (Vendor 15, Vendor 18).*	*25%*
Legal Insecurity and Harassment	*Vendors fear that registration will increase government scrutiny, leading to potential fines or closure.*	*"Fear of fines" (Vendor 17), "Afraid of attracting authorities' attention" (Vendor 20), "Safer to stay unregistered" (Vendor 23).*	*15%*
Lack of Support Systems	*Lack of guidance and support deters vendors from attempting the registration process.*	*"No one to help" (Vendor 11, Vendor 14), "Feels impossible without support" (Vendor 21).*	*20%*
Preference for Informality	*Vendors prefer the flexibility and simplicity of staying informal, seeing no reason to formalize.*	*"Doing fine without registration" (Vendor 1), "Why complicate things?" (Vendor 5), "No need to change" (Vendor 18).*	*35%*
Avoidance of Complexity	*The complex nature of bureaucracy and paperwork drives vendors to avoid registration altogether.*	*"It's confusing" (Vendor 2), "Paperwork is overwhelming" (Vendor 16), "Focus on business, not bureaucracy" (Vendor 7).*	*25%*
Fear of Financial Burdens	*The long-term financial costs of taxes and fees after registration are seen as too high.*	*"Can't afford fees" (Vendor 3), "Worried about taxes" (Vendor 6), "Costs are too high" (Vendor 14).*	*30%*
Maintenance of Status Quo	*Vendors prefer to keep their businesses informal as they view it as a lower-risk option.*	*"Simpler to keep things the way they are" (Vendor 7), "Less risky and easier" (Vendor 25), "Why change what's working?" (Vendor 21).*	*30%*
Risk Management	*Vendors avoid registration as a strategy to manage and minimize legal risks and financial exposure.*	*"Safer to stay informal" (Vendor 17), "Avoid unnecessary attention" (Vendor 9), "Better to avoid the hassle" (Vendor 21).*	*20%*
Fear of Fines and Harassment	*Constant fear of fines and harassment from authorities' shapes vendors' decisions to avoid registration.*	*"Worried about fines" (Vendor 1), "Constant fear of authorities" (Vendor 11), "Managing but always cautious" (Vendor 19).*	*15%*
Limited Growth Opportunities	*Lack of access to loans and better business locations due to informality restricts*	*"Can't access loans or better locations" (Vendor 3), "Missed opportunities" (Vendor 12),*	*10%*

	business growth and expansion.	*"Could do more but registration is a barrier" (Vendor 15).*	
Desire to Avoid Stress	*Staying unregistered allows vendors to focus on their business without the added stress of compliance and bureaucracy.*	*"Less stress staying unregistered" (Vendor 2), "Avoiding stress from formalization" (Vendor 20), "Keep things simple" (Vendor 8).*	*30%*
Maintainin g Operational Flexibility	*Unregistered status allows vendors to operate with greater flexibility and adapt quickly to changing business conditions.*	*"More control without regulations" (Vendor 10), "Quick decisions without the law" (Vendor 16), "Can adapt without constraints" (Vendor 24).*	*20%*

What are the challenges that hinder the business registration of street coffee vendors in Sangkat BKK?

Procedural Complexity

The majority of vendors identified the registration process as overly complex, citing confusion about the required steps, documentation, and institutional procedures.

"The process is just too complicated… I don't even know where to start." (Vendor 1)

This finding supports Hart's (1973) Informal Economy Theory, which emphasizes that complex regulatory frameworks often exclude marginal economic actors. Despite the introduction of Cambodia's Single Portal, vendors reported continued barriers due to limited digital literacy and bureaucratic opacity.

Financial Constraints

Financial burden remains a critical barrier. Vendors reported high upfront registration fees, recurring taxes, and compliance costs as disincentives to formalization.

"I make just enough to get by… paying for registration would hurt my business." (Vendor 8)

This is aligned with Maneepong and Walsh (2013), who highlight registration costs as a deterrent to formalization in Bangkok. The findings reflect the Cost-Benefit Analysis framework, as vendors perceive the financial burden to outweigh any prospective benefits.

Limited Perceived Benefits

Many vendors doubted that formal registration would enhance their business viability.

"There's no clear advantage to registering… I still sell the same amount of coffee." (Vendor 15)

This echoes the Rational Choice Theory (Becker, 1976), where vendors weigh the perceived absence of customer concern and marginal profit impact as reasons to remain informal.

Legal Insecurity and Fear of Harassment

Several participants expressed fear that registration could expose them to increased scrutiny, fines, or even business closure.

"I'm afraid that if I register… I'll attract more attention from the authorities." (Vendor 20)

This aligns with Tyler's (1990) Procedural Justice Theory, which suggests non-compliance is common when regulations are perceived as unfair, unpredictable, or punitive.

Absence of Institutional Support

Participants noted a lack of assistance from government agencies or civil society in navigating the formalization process.

"There's no one to help you… so it feels impossible." (Vendor 11)

This reflects findings from Tambudzai (2020) in Zambia, and emphasizes the importance of institutional guidance in encouraging transitions to formality.

How do these challenges affect the vendors' decisions to remain unregistered?

Preference for Informality

Informality is perceived as a functional and low-risk business model.

"I'm doing fine without registration, so I don't see the need to change anything." (Vendor 1)

This perspective is supported by Lewis' (1954) Dual Economy Theory, illustrating how the informal sector serves as a self-sustaining economic refuge for low-capacity entrepreneurs.

Bureaucratic Avoidance

Many vendors actively avoid registration due to perceived complexity and administrative overload.

"The paperwork is just overwhelming." (Vendor 16)

Behavioral economics, particularly the notion of cognitive overload (Kahneman & Tversky, 1979), helps explain this avoidance behavior.

Anticipation of Financial Risk

Concerns about tax obligations and hidden costs post-registration dissuade vendors.

"Every time I think about registering, I think about how much it's going to cost me… and I decide it's not worth it." (Vendor 19)

Maintenance of Status Quo

Many vendors expressed a desire to maintain their current mode of operation due to its perceived stability.

"Why change what's working… it's not worth the risk." (Vendor 21)

This aligns with status quo bias from behavioral economics, where individuals prefer current states over uncertain alternatives.

Risk Mitigation

Registration is seen as a potential threat rather than a safety net.

"It's safer to just stay informal and avoid the hassle." (Vendor 17)

Here, vendors are exercising Rational Choice Theory by opting for operational stability over legal compliance.

Impacts of Remaining Unregistered on Business Operations

Legal Vulnerability

Operating without formal status exposes vendors to arbitrary enforcement and punitive actions.

"I'm always cautious about authorities… It's stressful." (Vendor 11)

Limited Access to Growth Opportunities

Informality restricts access to credit, larger contracts, and better business locations.

"I know I could do more… but without registration, it's hard." (Vendor 15)

Stress Avoidance

The desire to avoid psychological burden and bureaucratic frustration is a major reason vendors opt to remain informal.

"It's less stressful to stay unregistered… I can just focus on my business." (Vendor 2)

Operational Flexibility

Remaining informal allows for dynamic decision-making and adaptability in a competitive market.

"Staying informal gives me more control over how I run my business." (Vendor 10)

6. CONCLUSION AND RECOMMENDATIONS

6.1 Conclusion

This study investigated the persistent challenges that deter street coffee vendors in Sangkat Boeung Keng Kang (BKK), Phnom Penh, from registering their businesses. Guided by two core research questions (1) What are the key barriers to business registration? and (2) How do these barriers influence vendors' decisions to remain informal? the findings reveal a complex interplay of institutional, financial, and behavioral factors that sustain informality The most prevalent barrier identified was the perceived complexity of the registration process, cited by 40% of respondents. Despite the government's implementation of the Single Portal system to streamline registration, many vendors lack the educational background and digital literacy to navigate the system effectively, thereby reinforcing a perception of bureaucratic inaccessibility.

Financial constraints were the second most common concern (30%), with vendors emphasizing the high upfront costs of registration and the ongoing burden of taxes and compliance. This was closely followed by a lack of perceived benefits (25%), with many vendors expressing skepticism about the tangible advantages of formalization—particularly in the absence of increased customer demand or business expansion

opportunities. Legal insecurity and fear of government scrutiny further exacerbated hesitation, with 15% of vendors fearing that registration might attract punitive enforcement rather than protective regulation. Compounding these issues is a lack of support systems (20%), leaving vendors isolated and ill-equipped to navigate formalization independently. Although some respondents acknowledged the limitations of informality such as lack of access to credit, insecure work environments, and limited growth opportunities most prioritized immediate livelihood stability and operational flexibility over the long-term, uncertain benefits of formalization. In sum, the findings underscore that formalization is not simply a procedural issue, but rather a socio-economic and institutional challenge. Comprehensive, targeted interventions are necessary to reduce formalization barriers and support street vendors' integration into Cambodia's formal economy.

6.2 Recommendations

Strategic Recommendations to Facilitate Business Registration for Street Coffee Vendors in Sangkat BKK. Based on the research findings, this section outlines a comprehensive set of strategic recommendations aimed at addressing the multifaceted challenges street coffee vendors face in formalizing their businesses. These recommendations focus on six key areas: procedural simplification, financial support, legal protection, awareness building, digital inclusion, and social security integration.

Simplifying the Registration Process

To reduce procedural complexity, the government and relevant stakeholders should establish localized support hubs within vendor-concentrated areas like Sangkat BKK. These centers can assist vendors with document preparation, translation, and digital literacy. In addition, mobile registration units should be deployed to bring services directly to vendors, minimizing disruption to their operations. The introduction of a micro-enterprise registration tier would further streamline the process by simplifying requirements, reducing paperwork, and eliminating unnecessary legal jargon making registration more accessible for low-income entrepreneurs.

Financial Incentives and Affordability

Financial constraints are a major deterrent to registration. To mitigate this, the government should offer zero-cost initial registration schemes for first-time registrants, covering administrative fees and offering subsidies for start-up costs. Additionally, tailored microcredit programs with low-interest loans and accompanying financial literacy training should be introduced to empower vendors to manage their finances and plan for long-term growth. A tiered tax system based on income levels would further ease the burden, allowing vendors to contribute proportionally and encouraging formalization without compromising sustainability.

Enhancing Legal Protection and Reducing Harassment

Street vendors often perceive registration as a pathway to increased legal vulnerability. To counter this, formalized vendors should be granted legal protections that shield them from arbitrary fines, confiscations, and evictions. Legal reform should also focus on the decriminalization of informal vending, shifting regulatory frameworks from punitive to supportive. Furthermore, the establishment of safe vending zones—designated public spaces where registered vendors can legally

operate—would enhance business security and foster trust in the formal system.

Building Awareness and Community Engagement

To address the widespread lack of awareness regarding the benefits of formalization, the government should launch public awareness campaigns via social media, radio, and community outreach, highlighting the long-term advantages of registration. A vendor ambassador program could be developed, whereby successful registered vendors mentor their peers, share experiences, and demystify the registration process. Moreover, post-registration support services including business development advice, digital marketing tools, and access to professional networks would ensure continued engagement and demonstrate the value of formalization.

Promoting Digital Inclusion

Although the Single Portal system has simplified registration in theory, many vendors lack the skills and tools to access it. Partnerships with NGOs and local institutions should deliver digital literacy training focused on using online platforms for registration, finance, and marketing. To complement this, the government should collaborate with telecom companies and microfinance institutions to provide affordable access to digital tools, such as subsidized smartphones or low-cost data plans, ensuring broader digital accessibility.

Linking Formalization to Social Protection

One of the most effective incentives for formalization is the promise of long-term social security. The government should integrate formal registration with eligibility for health insurance, pension schemes, and unemployment benefits to increase its appeal. Establishing a vendor welfare program that provides financial assistance during economic downturns or emergencies would further reassure informal entrepreneurs that formalization offers stability and support during crises.

Together, these recommendations aim to create an enabling environment that empowers street vendors to transition into the formal economy, thereby enhancing their economic resilience, operational legitimacy, and access to state support.

6.3 Future Research Directions

While this study provides valuable insights into the registration challenges faced by street coffee vendors in Phnom Penh's Sangkat BKK, several avenues remain for further academic exploration. These future research directions are vital for developing more targeted and effective policies:

- Long-Term Impacts of Formalization: Future studies should investigate how formalization affects vendors' economic outcomes over time, including income stability, credit access, and overall business performance. This would help determine whether formalization leads to sustainable livelihood improvements.
- Sectoral Comparisons: Comparative studies across different informal sectors—such as food vendors, motorbike taxi operators, or garment workers—could assess whether the barriers to registration are consistent across contexts or specific to particular occupations.
- Gender Dynamics: Additional research is needed to understand how gender influences informal entrepreneurs' decisions to

formalize. This includes exploring the unique challenges faced by women vendors and developing gender-responsive policy frameworks.
- Behavioral and Psychological Drivers: Further studies should analyze the behavioral economics behind vendors' decisions, including fear of authority, mistrust in institutions, and risk aversion. These psychological factors can inform the design of more effective behavioral interventions or "nudge" strategies.
- Policy Evaluation: Rigorous evaluation of current policies—especially the Single Portal system—should be conducted to assess their effectiveness in reducing barriers to registration. This can identify gaps in implementation and inform necessary policy adjustments.
- Urban Policy and Vendor Inclusion: Future research should explore how urban planning, zoning laws, and public space regulations affect street vendors' ability to operate legally. Understanding these dynamics can help create inclusive urban environments that integrate informal economic actors rather than marginalize them.

Pursuing these research directions will deepen the understanding of informality and support the development of evidence-based interventions that promote inclusive economic development in Cambodia and beyond.

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APPENDIX

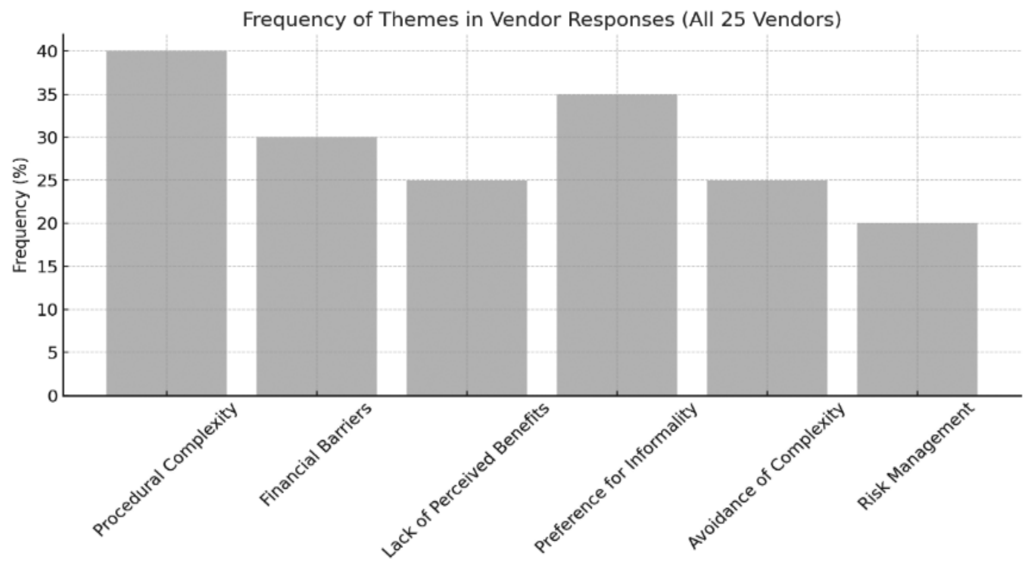
Table A1: Framework Matrix of Vendor Responses

The table A1 below summarizes the key responses and themes for each of the 25 vendors, categorizing their challenges, reasons for not registering, and the impact of these challenges

Vendor ID	Q1: Years of Operation	Q3: Why Not Register	Q4: Challenges	Q5: Effects of Challenges
Vendor 1	3 years	Too complicated	Procedural Challenges	Stay unregistered
Vendor 2	5 years	Hard to navigate	Confusing Process	Less Stress
Vendor 3	2 years	Fees are too high	Financial Barriers	Too costly to register
Vendor 4	4 years	No clear advantage	Lack of Support	Avoid stress
Vendor 5	6 years	No perceived benefit	Confusing Process	Keep it simple
Vendor 6	7 years	Fear of taxes	Tax Concerns	Avoid future taxes
Vendor 7	3 years	Simpler this way	Focus on Business	Maintain simplicity
Vendor 8	2.5 years	Costly	Regulations	Focus on work
Vendor 9	5 years	Doesn't affect customers	Unnecessary Attention	Avoid scrutiny
Vendor 10	1 year	Lack of education	Control Operations	Retain flexibility
Vendor 11	4 years	No guidance	Stress of Registration	Avoid stress
Vendor 12	6 years	Ongoing costs	Ease Over Complexity	Simple operations
Vendor 13	2 years	Risk outweighs	Fear of Loss	Minimize risks

		benefit		
Vendor 14	3 years	Lack of support	Financial Strain	Fearful operations
Vendor 15	5 years	No clear advantage	Limitations Accepted	Focus on current tasks
Vendor 16	2 years	Overwhelming paperwork	Flexibility	Value simplicity
Vendor 17	10 years	Fear of fines	Government Interference	Safer informality
Vendor 18	8 years	No vendor benefits	Informality Works	Prefer informality
Vendor 19	4 years	High costs	Risk Avoidance	Deterred by risk
Vendor 20	3 years	Fear of scrutiny	Simpler Operations	Reduce legal stress
Vendor 21	6 years	No guidance	No Guidance	No change needed
Vendor 22	2 years	Too complicated	Paperwork	Retain flexibility
Vendor 23	1 year	Not a priority	Avoid Trouble	Unregistered simplicity
Vendor 24	5 years	Prefer flexibility	Operational Freedom	Avoid hassle
Vendor 25	7 years	Less risky	Risk Averse	Simplicity over risk

Figure A1: Frequency of Themes in Vendor Responses (All 25 Vendors)



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