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Which Perennial Crop Farm Approach Generates More Profitability? A Case Study in Dak Lak province, Vietnam

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Abstract

Dak Lak Province, Vietnam has been identified as the optimal growing area region of cash crops. However, in recent years, perennial crops have faced some challenges need to have a new approach to maintain production sustainability. This study primarily provides a comparative analysis of the economic performance of crop cultivation by two approaches, mono-crop approaches including mono-coffee farms (MCFs) and mono-pepper farms (MPFs); intercropped approaches comprising intercropped coffee farms (ICFs) and intercropped pepper farms (IPFs). Additionally, this paper identifies the main factors affecting the farmer's adoption decision on different intercropped farm types. Based on an investigation of 120 selected farms, focus group discussions (FGDs) and participant assessments, from January to April 2019, the information about farming operations, costs and profits also were collected. The findings indicated that intercropped farms (include ICFs and IPFs) had a higher reduction of variable costs than mono-crop farms (MCFs and MPFs). Likewise, between two intercropped farm types, ICFs that wasted fewer input costs seem to be more appropriate for the poor and small saving households than that of IPFs. Moreover, ICFs and IPFs generate more profitability, increase by 62 % and 25.7 % as compared with MCFs and MPFs, respectively. Going forward, the study revealed factors influencing farmers' decision-making on applying different approaches for intercropped farms. These comprise farm profiles (pest and disease status; the age of the tree), farmers' characteristics (training) and economic factors (profits and other income). The findings devote information to intercropped farms in terms of enhancing economic benefits should be promoted for the coming years. Looking beyond, this empirical evidence is likely a useful contribution to farming management. What's more, the factors highlighted here demonstrate the need for continued improvement in such farming strategies.

Keywords: Perennial crop farms, profitability, Dak Lak province, coffee, pepper, Vietnam

1. Introduction

Currently, more than one-fourth of the land surface in the world has been shifted for agricultural land and more land is appropriate for annual as well as perennial crops growing (Godfray et al., 2010). In parallel, the enhance of agriculture in general and perennial crops, in particular, can contribute to economic growth, jobs creation, and poverty alleviation. Also, this brings important sources of income emphasized through recent empirical evidence (Godoy & Bennett, 1991; Cuong, 2009; Romyen, Sausue, & Charenjiratragul, 2018). Furthermore, the conversion to perennial crops deals with multiple issues involving environmental conservation and food security. On the other side, the perennial crop production seems to be more efficient (such as economic efficiency, soil erosion prevention, and habitat for wildlife) than annual crop one (Pimentel et al., 1987; Dinnes et al., 2002; Entz et al., 2002; Batello et al., 2014; Dixon & Dennis, 2014). Subsequently, it is crucial to have a study of the perennial crop farms.

Ubiquitously, over the last few decades, Vietnam's agricultural sector has achieved impressive results such as poverty alleviation, national food security and social stability (World Bank, 2016). In other words, Vietnam has become one of the top five exporters for commodities like coffee, cashew, and pepper, in which coffee reached over 3 billion USD in 2018 (GSO, 2019). Thus, approximately 70% of households' income is from perennial crops, in which 40% of those is from black pepper (NIAPP, 2017). However, over 90% of perennial crop households are in small scale (over 95% of coffee farms) and 75% of them has one hectare or less, sometimes, dispersed several plots (Scherr et al., 2015).

Turning to Dak Lak Province that located in the Central Highlands has developed perennial crops early relying on the favorable endowment and the largest perennial crop-growing region. Apart from coffee, Dak Lak also grows other perennial crops like pepper, rubber, and cashew. Heretofore, the perennial crop sector has played a principal role in the provincial economy (i.e., the coffee growing area dominated 30 % and 40% of the total national area and output in 2017) (GSO, 2018). It is evident that the perennial crops are the economic trees and the main sources of rural household income in this Dak Lak Province (Nguyen, 2017). Moreover, intercropped farms between coffee and pepper that developed rapidly in Dak Lak with over 19 thousand hectares in 2018 seem to generate higher benefit for farmers than mono- perennial crop ones (Provincial People's Committee of Dak Lak, 2018a).

Notwithstanding, the perennial crop production has faced challenges and vulnerabilities recently (i.e., irrigation systems, pests and diseases, investments) and the extreme weather (drought, heavy rains) and economic crisis (tang Ton & Buu, 2011; Amarasinghe et al., 2015; Lebailly et al., 2015; Ward, Smith, & Tran, 2016; Ho et al., 2018; Lan & Nguyen, 2018; Nguyen & Sarker, 2018; Provincial People's Committee of Dak Lak, 2018b). Meanwhile, farmers are in a lack of negotiating power in the supply chain resulting in their income limits. Since the 2000s, the world coffee price dramatically dropped leading to a reduction of farmers' saving. Subsequently, farmers became serious in debts or repayments. And in some cases, the farmers have no ways to solve excepting selling their land (ICARD, 2002; Ha & Shively, 2008). In response to these issues, farmers look for not only viable economic alternatives but also options to mitigate difficult scenarios (i.e., cost reduction, removal of other crops) to generate more profit.

The specific choices that were reported by previous studies include transferring of mono-culture to crop mix, converting to higher latitudes and elevations, switching to the crop calendar, cultivating perennial crops under shade trees, applying good agricultural productions and shifting from mono-crop system to synchronized or intercropping systems (Chau, 2007; Bosselmann et al., 2009; Sacks & Kucharik, 2011; Park, 2012; Cho & McCarl, 2017; Ho et al., 2017; Nguyen & Sarker, 2018). Interestingly, empirical evidence exposed that intercropping systems such as coffee and pepper, coffee and avocado, coffee and banana could generate higher economic benefits than mono-culture (van Asten et al., 2015; Thi Duong Nga & Thuy, 2017; Thuy et al., 2019). It means that an evaluation of mono-crop and intercropped farms is necessary to have a better understanding of economic performance as well as influential factors to the profitability.

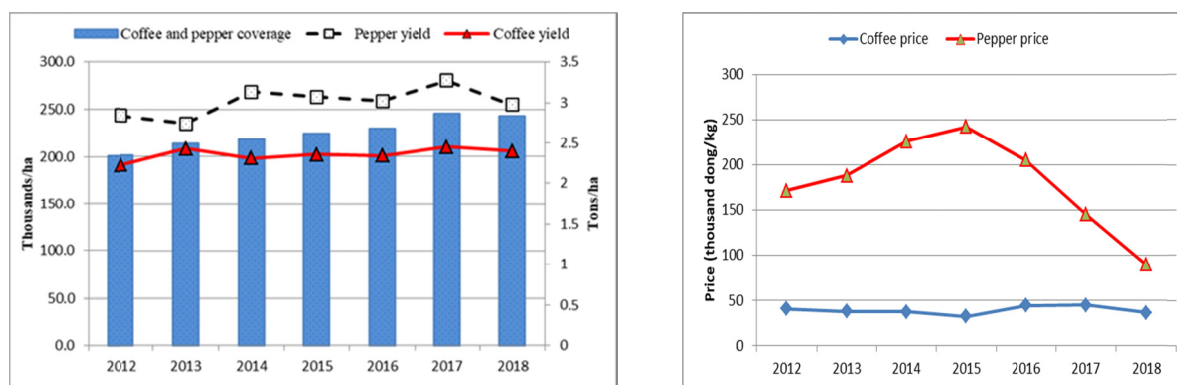


Figure 1. The production and market price of coffee and pepper in Dak Lak Province

Source: (DakLak DARD 2017; Provincial People's Committee of Dak Lak 2018a)

The study explores the profitable differentiation among perennial crop farms through two main objectives: (1) a comparison of economic efficiency of mono-crop farms and intercropped farms and (2) identifying factors affecting farmer's decision on adoption of the intercropped farm types. This research intends to give information to farmers in choosing the convenience of perennial crop farm types. Moreover, the results also provide economic evidence, factors usefully for local authorities in the sustainable development of perennial crops.

2. Methods

2.1 Research Sites

Dak Lak Province, Vietnam that is the largest perennial crop growing area in Central Highlands was chosen for the study. In this, Robusta coffee (tending to be easier to grow with higher yields and more resilient features) and black pepper are the two main commodities contributing a large part to the Dak Lak economic growth. Coffee was initially grown in 1920s by the French accounting for 40% of Vietnam national coffee acreage. Also, the

pepper growing area is standing the first position. Furthermore, three regions including Cu M'gar, Cukuin (the two largest regions among 13 Districts) and Buon Ma Thuot City are chosen for research sites, where are homogenous fertility (Figure 2). Besides mono-crop farms, the intercropped farms in these regions are also practiced.

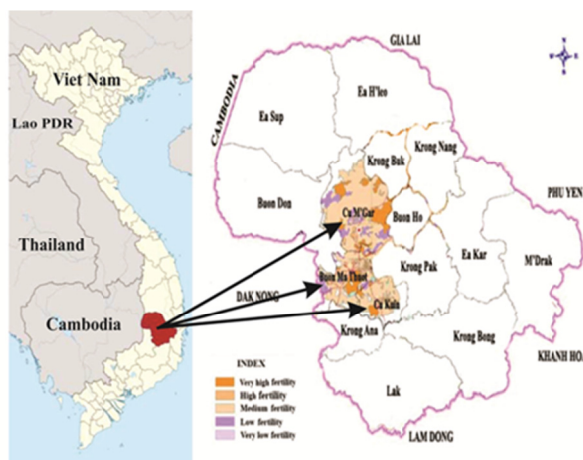


Figure 2. Map of Dak Lak province and research sites
Source: (Author's own elaboration)

2.2 Data Collection

In this study, the secondary data was gathered from different sources such as yearly statistical books, Dak Lak Statistical Office: data from local authority at villages, districts and province.

- Data sources from focused groups, participatory assessment

Different activities were carried out as group discussions (three groups with 7 participants/group and other participatory activities were held to collect information related to coffee and pepper production generally in Dak Lak province.

- Survey household

This process was implemented, from January to April, 2019, to understand the annual production of coffee and pepper farms under two cultivation methods including mono and intercropped. Additionally, by reason of the average perennial crop farm size is approximately 1.5 hectares (cited by Head of Dak Lak People' Committee); surveyed farms were selected from 0.5 to 2 hectares to be convenient for studying.

According to (Diepart & Allaverdian, 2018), there is no rule about the household sample size of the research sites. More than that, statistical units could have the same probability of being selected. For instance, if the sample rate is 10%, meaning the sample size represents 10% of population (FAO, 2016). To obtain a representative sample, the study was conducted at three villages in three communes of three selected regions (Figure 2). The study collected 10% of villagers (selected households $(N) = 0.1 n$ (n =populated size), who are cultivating coffee and pepper crops. In addition, the study was conducted to meet cost and time constraints. In overall, 86 households were interviewed using the face-to face with structured questionnaires which include household profile, input and output data, farm characteristics as following Table 1. In addition, 86 selected households were divided into two kinds of crops and two types of cultivated methods. Also, 120 plots were chosen in this research. Each household in research site owned over one plot of coffee and pepper relating to two approaches as mono and intercropped farms (Table 2).

Likewise, we assume that selected households will decide either to adopt the different intercropped farm types or to keep the present ones. With respect to intercropped farms, three options will be chosen including group 0 (Planters convert totally current crops to new perennial ones); group 1 (Planters intercrop fruit trees (durian and avocado) into the current plantation); group 2 (Planters shift current crops to new perennial ones and intercrop fruit trees).

This examines the factors affecting the adoption of different intercropped approaches by households. As reported by some previous studies (Tu et al., 2018; von Ketteler, 2018) based on these factors as determinants comprising (1) physical factors (crop profiles); (2) socio-personal factors (households' characteristics); (3) and economic factors, the specific variables of cultivating perennial crops in intercropped farms are displayed in Table 3. Firstly, crop profiles like pests and diseases and age of trees were relevant factors. For instance, diseases and pests

accounted for 65% in making decisions (von Ketteler, 2018). Secondly, many previous reports mentioned households' characteristics affected farmers' adoption. Not only training status influenced the applying new technology but also farmers' decision and farm management were revealed (Kilpatrick, 2000; Chi & Yamada, 2002). Thirdly, income was argued to associate with the adoption of on-farms and off-farms (Arellanes & Lee, 2003; Adeola, 2010; Okuthe, 2014). Moreover, (Thuy et al., 2019) demonstrated that economic status (profits) affected households' decision on shifting their cropping systems.

Table 1. The explanation of sampling

Region	Commune	Village	(n) Populated size ^a	Selected households (N=10%*n)	Intercropped adopter
BMT	EaKao	Cao Thanh	300	30	26
CuMgar	Cu Suê	Tu	310	31	27
Cu Kuin	EaKtur	Muoi	250	25	24
Total of households				86	79

^aNumber of villagers was reported by head of village

Table 2. The distribution of samples

Type of farm cultivation	Plots
Mono coffee farms (MCFs)	32
Intercropped coffee farms (ICFs)	30
Mono pepper farms (MPFs)	28
Intercropped pepper farms (IPFs)	30
Total of plot samples	120

2.3 Data Analysis

- Measure the economic performance

In order to capture the profitability of farm approaches of perennial crops, an economic analysis evaluates the differential of economic viability, such as output, input cost, net farm income and profit indicators, of coffee and pepper farms among two cultivated methods (Barral et al., 2012; Hill & Bradley, 2015; FAO, 2016; Spicka et al., 2019). Additionally, a Mann-Whiney U-test was applied to test whether there is a significant difference in the non-parametrical distribution of two groups (Ngoc, 2008; Statistic Solution, 2013).

- Econometric analysis

A multinomial logistic regression (multinomial regression-MR) is an extension of binary logistic regression to analyze the farmers' decisions across more than two categories in the dependent variables (Y). Hence, the MR permits to determine the occurrence probabilities of an event defined by Y. To do this, the reference category must be identified.

In this study, a multinomial logistic regression (multinomial regression-MR) that allows an analysis of the farmers' decisions across more than two categories in the dependent variables (Y) is an extension of binary logistic regression. The MR permits to determine the occurrence probabilities of an event defined by Y. Particularly, Y is the farmers' decisions on three adoptions of intercropped farms. On the other side, MR examines whether which factors are affecting farmers' adoption relating to a variety of farm approaches.

Y was divided into three categories (Y_0 , Y_1 , Y_2) as following three groups with 0 as the reference category (Czepiel, 2002; Sarma & Simpson 2007; Ojo et al., 2013; Dobson, 2019).

0: Adopter intended to maintain current plantation and intercropped new fruit tree

Y_i including 1: Adopter intended to convert plantations to new perennial crops

2: Adopter intended to shift plantation to new perennial crops and new fruit tree

The general expression of the logistic is as follows:

$$Z_{ij} = \text{Log} \frac{P_i}{P_j} = \alpha_{ij} + \beta_{ij}X_1 + \beta_{ij}X_2 + \beta_{ij}X_3 + \dots + \varepsilon_{ij} \quad (1)$$

Where $Z_{i0}=0$, therefore, $e^{Z_{i0}}=1$

Where: $P_{i0} = \frac{1}{1+e^{Z_{i1}}+e^{Z_{i2}}}$ is the probability of occurrence for new perennial crops farms (Group 0)

$P_{i1} = \frac{e^{Zi1}}{1+e^{Zi1}+e^{Zi2}}$ is the probability of occurrence for old plantation and fruit trees farms (Group 1)

$P_{i2} = \frac{e^{Zi2}}{1+e^{Zi1}+e^{Zi2}}$ is the probability of occurrence for new perennial crops and fruit trees farms (Group 2)

The independent variables in the MR are defined:

Table 3. Explaining Variables

Variables	Definitions
Profit	Net return of farms after division of family labor cost
Other income	1 if respondent has other income sources, 0 otherwise
Aging tree stock	1 if plantation has over 20 years, 0 otherwise
Pests and diseases status	1 if farm experienced pest and diseases, 0 otherwise
Training courses	1 if farmer participated a training program, 0 otherwise

3. Results and Discussion

3.1 Characteristics of Coffee and Pepper Farm Approaches

Table 4. The profiles of coffee and pepper farms

Items	MCFs (N=32)	ICFs (N=30)	MPFs (N=28)	IPFs (N=30)
1. Average farm area (ha)	1.1	1.0	0.8	1.0
2. Density (trees/ha)	1 092	830	1 163	900
3. Age of trees (years)	18	14	8	7
4. Yield (ton/ha)	2.0	1.9	2.15	1.7
5. Average crop losses (trees/ha)	28	21	32	23

Source: Surveyed data, 2019

In this section, the study reveals general information of coffee and pepper farms' profiles by distinguishing farm types in research sites. In sizes, apart from the mono-pepper farms in residential gardens (Thuy et al., 2019), the others were similar around one-hectare acreage. Furthermore, the MCFs and MPFs had a higher number of trees with crowdedness at 1092 coffee and 1163 pepper trees per hectare. On the other hand, a density of coffee and pepper in intercropped farms were at 830 and 900 trees, respectively. Besides, these crops were also compared among farm types in the research sites (see Appendix). It implies that the densities of MCFs and MPFs were lower than as advised by technical services (i.e., 1100 coffee and 1600 pepper trees whilst under 600 pepper ones in pepper intercropped farms were higher than recommendation (MARD, 2017, 2018). This is explained by a high density and excessive fertilizer misuse resulting in nutrition and soil imbalances, pest and disease infection and aging tree stock, a regular drop of crops (Scherr et al., 2015). Essentially, the number of crop losses for intercropped farms seems to be lower than that of mono-crop plots, marking up 28 coffee and 32 pepper trees per hectare. Correspondingly, farmers have a trend to replace or rejuvenated crops. However, they had no motivation for replanting when prices of coffee and pepper went down. For example, in 2018, the pepper price decreased significantly by 50% as compared to mid-2016 (Lan & Nguyen, 2018). In some cases, farmers admitted that although they tried to change died crops by new ones, it was problematic for growing later. On the other hand, the yields of MCFs and MPFs were higher than those of intercropped plots, at 2.0 tons of coffee and 2.15 tons of pepper (Table 4).

3.2 An Analysis of Economic Efficiency in Coffee and Pepper Farms

- The variable costs

Because of coffee and pepper crops have a long life span, there is a closed relationship between annual costs and yields affecting crop efficiency for a long time. As a result, an analysis of variable cost components is a need detailed in Table 5.

Generally, intercropped farms were fewer than mono-crop farms regarding total expenses.

In coffee farms, MCFs had higher input costs (30.5 million) than ICFs (24.3 million VND per ha) including intermediate costs, labor costs, interest and depreciation expenses.

Concerning intermediate costs (IC), this cost was 22.6 million for MCFs and 12.8 million VND per ha for ICFs (Table 5). Other specific costs including chemical fertilizers, pesticides and herbicides, and watering were cut

down at 54%, 36 %, and 21%, respectively in ICFs as compared to MCFs. This is explained that the intercropped approaches (as coffee was grown under shade trees) preserve soil fertility from leaf litter and pruning which decreasing costs such as herbicide costs (over 40% of surveyed farmers handled herbicides) or labor costs for cutting grass or fertilizer or irrigation. As reported by previous authors, the pruning from the shade trees was used as green manure or mulch to taper off weeding area and fertilizers. In addition, increased shade-grown coffee area instead of growing coffee under full sun took off weight irrigation round per year (i.e., 650 liters/plant/round in three rounds per year was advised by MARD and only 25 % of the potential crop evapotranspiration were provided by rainfall) and maintained high crop yield (Godoy & Bennett, 1991; Albertin & Nair, 2004; Cheesman & Bennett, 2005; Bote & Struik, 2011; Romyen, Sausue, & Charenjiratragul, 2018). Interestingly, when the coffee sector has faced enormous challenges, especially excessive fertilizer and irrigation caused soil acidification, infectious diseases, ICFs are a perfect and sustainable choice for farmers. In cases coffee is the main crop in Dak Lak province, authors suggested that local government should encourage coffee crop practice by intercropping with other crops such as pepper, cocoa. This is consistent with (Scherr et al., 2015) that mono-cropping was associated with high water demand, evapotranspiration rate.

Table 5. Distribution of production costs between mono-crop farms and intercropped farms. *Unit: Thousand VND per ha*

Indicators	MCFs (N=32)		ICFs (N=30)		Sig	MPFs (N=28)		IPFs (N=30)		Sig
	Mean	SD	Mean	SD		Mean	SD	Mean	SD	
Input costs	30.5	9.6	24.3	8.1	0.00*	50.0	25.0	28.0	10.0	0.00*
I. IC	22.6	8.9	12.8	4.7	0.00*	30.3	19.6	15.0	6.5	0.00*
Fertilizer	18.4	7.7	10.0	4.3	0.00*	18.2	10.4	10.8	4.4	0.00*
Manure	3.8	4.7	2.5	3.6	NS	5.7	5.8	3.2	3.4	NS
Chemical	14.6	6.7	7.5	3.0	0.00*	12.5	7.0	7.5	2.7	0.00*
2. Pesticides, herbicides	1.9	1.8	1.2	0.8	NS	9.6	11.4	2.8	2.9	0.01*
3. Watering	1.4	1.1	0.7	0.4	0.04**	0.9	0.8	0.6	0.4	NS
4. Transporting	0.3	0.4	0.2	0.1	NS	0.3	0.3	0.1	0.1	0.03**
5. Packaging	0.4	0.4	0.3	0.4	0.01*	0.3	0.3	0.2	0.3	NS
6. Others	0.2	0.3	0.4	0.6	0.01*	1.0	1.3	0.4	0.6	0.00*
II. Hired labor cost	3.2	3.0	4.1	4.8	NS	7.6	6.0	8.2	5.6	NS
III. Interest cost	2.7	3.6	0.3	0.4	0.00*	6.0	8.4	0.5	0.4	0.00*
IV. Depreciation	2.0	1.3	2.0	1.8	NS	6.1	2.4	4.5	1.8	0.01*

Source: Author's calculation. Excluding family labor cost.

Mann-Whitney U test. *, ** Significant at 1% and 5% level

Equivalently, to pepper farms, MPFs were higher expenses, where the annual cost amounted to 50 million and IC reached 30.3 million VND per ha, than those of IPFs (Table 5). Fortunately, as to IPFs, there was a rapid reduction rate in material expenditures including chemical fertilizers and pesticides-herbicides by 23% and 62.5% to compare with MPFs. This is explained similarly to ICFs. Also, IPFs were used by alive plant (i.e., 90 % of surveyed intercropped farm types while this figure was 50% on MPFs). In earlier studies, pepper pillar as *Cassia siamea* and/or *Leucaena leucocephala* tree assisted not only micro-climate balance, heat, soil moisture and light, but also diminished pest and diseases infection (WASI and IAS, 2016).

The next component is labor costs of which mainly for hiring labor costs. Coffee and pepper production is labor intensity with over 50% of the total variable cost in Vietnam and 70% in Colombia (IDH, 2014; Thuy et al., 2019). From this, perennial crops urgently need more short time manual workers for picking fruits (i.e., a large number of laborers hired for picking ripe fruits on the optimum harvest time, from October to December for coffee and from February to April for pepper) (Hurri Sauli, 2015; NIAPP, 2017). In comparing to mono-crop, intercropped farms were considered to call for fewer laborers (including family members and hired laborers). The number of workers on MCFs and MPFs were 132 man-days and 220 man-days while these figures on intercropped farms were at 110 and 164 man-days per ha, respectively. The proof is that the intercropped plots that incurred fewer labors costs of irrigation and/or weeding had crowned trees than mono-crop plots. It means that intercropped farms are considered to decrease evaporation and weeding area. Besides, this is likely that the intercropped farms had less competition for off-farms activities encouraging farmers' participation in more other activities as a rural livelihood diversification.

In different circumstances, intercropped farms used more hired labor costs than mono-crop ones. For details, this

cost for MCFs and MPFs achieved 3.2 and 7.6 million VND per ha while these figures were estimated at 4.1 and 8.2 million VND per ha for ICFs and IPFs, respectively (Table 5). The survey revealed that workers in intercropped farms are less powerful in securing the safety for the second crops than that of mono-crop ones. In other words, the mono-crop farms are more convenient than the others in production. To solve it, intercropped farmers should apply a reasonable density to improve the efficiency of labors instead of shortening the potential yields of the main crops (i.e., farmers can follow technical advice).

Undoubtedly, the IC depletion not only improves effectiveness but also seems to be appropriate for a sustainable orientation (low commodity prices) regarding the FAO guidelines for perennial crop farming and agricultural systems at small -scale producers (SAFA, 2013). Comprehensively, intercropped approaches seem to have lower costs than mono-crop ones. Significantly, in case of security fund, intercropped coffee approaches that helped to reduce by 23.7% of expenditures is likely to be the most applicable for rural households. Therefore, at the grass-root level, the author suggests that farmers should be interested in intercropped farm cultivation, especially coffee intercropped farms. As well, to enhance the second crop benefits like pepper, alive trees may be used for growing pepper instead of wooden and concrete pillars as well as following technical consultation. Additionally, farmers' perspective on the role of intercropped farms needs to be reinforced in the future. At the community level, empirical evidence should be publicized widely through practical activities such as workshops, talk shows and hands-on activities along with the current encouraging programs. So far, financial support needs to be administered perennial crop production with higher investments because the smallholders rarely have savings available was proved (Hurri Sauli, 2015).

The economic viability of perennial crop farms

The economic performance of mono-culture and intercropped plots is illustrated in Table 6 regarding gross output (GO), net farm income (NFI), profit, the ratio of GO to IC and the ratio of NFI to family labors.

On the subject of coffee farms, even if ICFs obtained less GO value at 68.2 million than MCFs at 70.2 million VND per ha, the other indicators including NFI and profit at 6.8 million (17%) and 11.7 million (62%), respectively were higher than MCFs (Table 6). Remarkably, the ratio of GO to IC for ICFs was not significant in comparison with that of MCFs. Pointedly, the ratio was 6.0 for ICFs (it means that an increase of 1 Viet Nam dong (VND) in IC leads to an increase of 6 VND per hectare in GO) while this proportion was only 3.4 for MCFs (Table 5). Obviously, in a severe situation like low coffee price, ICFs seem to be an alternative for farmers to spend fewer costs and more profitability. Thus, ICFs' farmers should apply a reasonable density for coffee plots and second crops. This aims to avoid the depletion of resource as well as create an efficient production.

Next, IPFs had higher deduction rates of GO and NFI at 22.5% and 5.7% than those of MPFs, respectively. The study showed that IPFs had a higher rate of return and the ratio of GO to IC than MPFs, increased by nearly 30% and 50%. It was recommended that IPFs should use the alive plants as the pillars to diminish the initial capital (the start-up cost burden). Besides, these alive plants are used in intercropped farms to create employment opportunities for family members (Thuy et al., 2019). Among intercropped farms, IPFs that challenge the poor or small saving households are intensive crop production comparing to ICFs.

Table 6. The economic efficiency of mono and intercropped farms

Items	MCFs (N=32)		ICFs (N=30)		Sig	MPFs (N=28)		IPFs (N=30)		Sig
	Mean	SD	Mean	SD		Mean	SD	Mean	SD	
1. Gross output (Mil. VND/ha)	70.2	31.3	68.2	22.7	NS	120.0	51.0	93.0	42.0	0.04**
2. Price (Mil. VND/ton)	34.5		34.5		NS	56.0		56.0		NS
3. Farm income (Mil. VND/ha)	39.6	30.2	46.4	23.0	NS	70.0	55.0	66.0	41.0	NS
4. Profit (Mil. VND/ha)	18.8	29.7	30.5	21.6	0.05**	35.0	62.0	44.0	40.0	NS
5. GO/IC	3.4	1.7	6.0	3.0	0.04	8.6	4.8	15.5	10.0	0.03**
6. Family labor (man-days)	115	27.5	88.0	23.5	0.00*	198.0	82.0	118.5	37.0	0.00*
7. Return to family labor	0.4	0.3	0.5	0.3	0.00*	0.5	0.7	0.6	0.4	NS

Source: Author's calculation.

Mann-Whitney U test. *, ** Significant at 1% and 5% level

To conclude, the analysis reveals that intercropped farms are an alternative in perennial crop production whereas lower variable costs and higher return rates as observed to mono-crop approaches. This is associated with previous studies that mono-cropping was lower farm income than diversified cropping (Scherr et al., 2015; Thuy et al., 2019).

Notably, as Dak Lak Province experienced a significant complication about irrigation for coffee and other industrial crops through drought and prices crisis, intercropped farms have been likely more convenient, especially ICFs. The authors recommend that farmers and local authorities should pay more attention to the economic performance of intercropped farms, especially in coffee farms. However, many farmers perceived that they could maximize their earnings via mono-culture without shade trees. As a result, training programs that help to changes farmers' awareness should be noticed for the coming years.

3.3 Factors Affecting Farmers' Decision on Practice of Intercropped Farms

This paper used multinomial logistic regression to examine the factors based on three components including crop profile, households' characteristics and economic criteria to impact on farmers' adoption of the intercropped farm approaches. The different types of farmers' decision categorize three groups; ((Group 0: farmers maintain current plantation and intercropped new fruit tree); (group 1: farmers convert to new intercropped farm); (farmers replace new intercropped farm and new fruit tree)), Table 7 shows the number of respondents preferring the farm approaches.

Table 7. Factors influencing the adoption of different intercropped farm types

Items	Old plantation and new fruit trees			New perennial crops and new fruit trees		
	B	Sig.	Exp(B)	B	Sig.	Exp(B)
Intercept	6.563	.197		-6.970	.245	
Profit	-.029	.01*	.971	-.046	.01*	.955
Aging of tree stock (less than 20 years)	-3.437	.01*	.032	-4.545	.00*	.011
Less Pest and Disease status	-1.669	.246	.188	-4.587	.01*	.010
No other Income	-2.685	.200	.068	-5.561	.02*	.004
No training program	4.291	.04**	73.071	6.265	.01*	525.932
Predicted						
Observed	New perennial crops	Old plantation and fruit trees		New perennial crops and fruit tree	Corrected percentages	
Group 0	28	5		0	84.8%	
Group 1	5	25		3	75.8%	
Group 2	2	4		7	53.8%	
Overall Percentage	44.3%	43.0%		12.7%	75.9%	
Combining old plantation and fruit tree is reference						
Number of observations=79						
Log likelihood =83.298*						
R-Square= 0.486						
*, **: significant at 5%, 10% level						

Table 7 shows that the value of the likelihood ratio is 83.298, reaching 1% significance of probability level. As well, the pseudo R² value of 0.48 confirms that the explanatory variables are significant in explaining farmers' choice by type of intercropped farms and the correctness of the associated logistics. The result of the multinomial logistic regression declared that there was the relationship between factors and the farmers' decisions on adopting a type of intercropped farms as illustrated by the coefficients of the model (B). On the other side, MR analysis confirmed that the factors explaining farmer's choice of adopting intercropped farm types include farm profiles (pest and disease status; age of trees), farmers' characteristics (training) and economic factors (profits and other income) were a connection with (von Ketteler, 2018). Furthermore, the prediction for group 0 was the highest percentage with 84.8 % while groups 1 and 2 were 75.8 % and 53.8%, respectively. Overall, MR revealed that the prediction of this model reached 76% (Table 7). This demonstrated that perennial intercropping is more interesting than the others.

Individually, a comparison between group 1 and conference group: Profits and age of trees were negative significance to intend adoption from reference group to group. Meanwhile, no trainers were a positive influence. It implies that the profits and age of plantations (less than 20 years) are raised, the farmers' probability into converted into new intercropped farms reduced as compared to the decision of group 1. For instance, B (profits and age of trees) are -0.29 and -3.437, therefore, log (odds) decreases 0.29 and 3.437 units when profits and age

of trees expand one unit, respectively.

Similarly, a connection between group 2 and conference group (0): Profits, trees age less than 20 years, fewer pest and disease status and other income had unfavorable meaning on adoption from group 0 to group 2 while no trainers had a positive significance. It means that low profit and high age of farms, high pest and disease infection and other income contribute an increase of probability in applying new plantation and new fruit trees. In as B (no trainer) is 6.265, therefore, log (odds) increases 6.625 units when the number of untrained farmers steps up a unit (Table 7).

The findings are also consistent with previous studies such as (Lindskog et al., 2005; Hurri Sauli, 2015). More detailed, in terms of pests, diseases and aging tree stock, they caused low yields as well as high material costs for farmers affecting sustainable livelihoods in the future. For example, aging tree stock significantly deteriorates the yields making the farmers to chop down coffee plantations to convert into more profitable cash crops. According to (Thuy et al., 2019) the number of plantations captured dying crops due to the aging of trees, pests and diseases at 41% in Dak Lak Province. Besides, the total pepper area died in Central Highlands in 2018 reached 10 thousand ha (11.4%) (Oanh, 2019). According to the (Provincial People's Committee of Dak Lak, 2018a) a coffee area around 42 thousand ha needs a rejuvenation due to aging tree stock. In the upcoming years, researches suggested that a reduction of pests and infectious diseases should be developed by the government.

Furthermore, untrained farmers have the positive influence to convert from the current plantation to group 1 and 2.. This is logical that untrained households were limited in the adoption of new farming, even applying the technologies. In some cases, they seem to have no information about the new farm approaches. In perennial crop production, to solve difficulties and maintain the profit, applying new technology (as irrigation, fertilizer) and taking care plantation plays an important role in sustainable development. However, a lack of technical training and meeting affected changes in technique. That's a reason why no trainers adopt new plantation instead of maintaining their current farms. This is in line with (Chi & Yamada, 2002).

Finally, farmers are expected to be more interested in the adoption of other intercropped types as diversified farms to strengthen resilience. Nonetheless, converting progress needs to be analyzed carefully because perennial crop replanting is not only a call for long term investment but also a reduction in farmers' income during the early maturing period.

At governmental agencies, financial supports such as social banks, organizations and so on for rural households should be offered. Further, to diminish influences of these factors, households risk managements in perennial crop production such as preventing the pest and infectious diseases, enhancing the profitability need to be improved in the future.

4. Conclusion

To be concluded, perennial crop production subsidizes a large part on economic development at national and provincial levels. Another one is that there is a great consensus on analyzing the economic performance of different perennial crop farm types.

The study examines the economic efficiency among differentials of perennial crop farms via economic indicators as well as determinants impacting on the probabilities of adopting variety intercropped farm types

The finding pointed out that intercropped farms (ICFs and IPFs) were considered to use lower costs than mono-crop farms (MCFs and MPFs). Its reduction rate had 20.3 % for ICFs and 44% for IPFs, in which IC fell dramatically, by 43 % and 40%, respectively comparing with MCFs and MPFs.

Regarding economic performance, ICFs and IPFs had higher profitability (an increase of 62.2 % and 25.7%) than those of MCFs and MPFs. Moreover, five factors include profits, age of trees, other income, constraints (pests and disease status) and training programs influence the farmer's decision in intercropped farm types.

In the coming years, all concerns must be considered to have effective perennial crop farms. Furthermore, factors determined should be improved.

Due to a limitation of time and funds, the study was carried at small scale and just only evaluated the two perennial crops (coffee and pepper) in three regions of Dak Lak Province. Besides that, the social benefits of perennial crop farms as well as factors affecting farmers' decision such as farmer's perception; external factors (social-institutional supports) need to be examined for the upcoming years.

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References

- Adeola, R. G. (2010). Influence of socio-economic factors on the adoption of soil conservation measures in Ibadan/Ibarapa agricultural zone of Oyo State. *Report and Opinion*, 2(7), 42-47. Retrieved from http://www.sciencepub.net/report/report0207/06_3391report0207_42_47.pdf
- Albertin, A., & Nair, P. K. R. (2004). Farmers' perspectives on the role of shade trees in coffee production systems: An assessment from the Nicoya Peninsula, Costa Rica. *Human ecology*, 32(4), 443-463. <https://doi.org/10.1023/B:HUEC.0000043515.84334.76>
- Amarasinghe, U. A. et al. (2015). Toward sustainable coffee production in Vietnam: More coffee with less water. *Agricultural Systems*, 136, 96-105. <https://doi.org/10.1016/j.agsy.2015.02.008>
- Annette, J., & Dobson, A. G. B. (Eds.) (2019). Chapter 14: Binary and Multinomial logistic regression models. In *An introduction to generalized linear models* (Chapman an, pp. 539-651). <https://doi.org/10.1016/B978-0-12-811216-8.00014-8>
- Arellanes, P., & Lee, D. R. (2003). *The determinants of adoption of sustainable agriculture technologies: Evidence from the hillsides of Honduras*. Retrieved from <https://ideas.repec.org/p/ags/iaae03/25826.html>
- van Asten, P. J. A. et al. (2015). *Coffee-Banana Intercropping: Implementation guidance for policymakers and investors*. Retrieved from https://www.researchgate.net/publication/285493955_Coffee-Banana_Intercropping_Implementation_guidance_for_policymakers_and_investors
- Barral, S. et al. (2012). *Assessing smallholder farming. Diagnostic analysis of family-based agricultural systems in a small region*. Retrieved from https://www.researchgate.net/publication/282297611_Assessing_smallholder_farming_Diagnostic_analysis_of_family-based_agricultural_systems_in_a_small_region
- Batello, C. et al. (2014). Perennial crops for food security. In *FAO Expert Workshop on Perennial Crops for Food Security Rome (Italy) 28-30 Aug 2013*. Retrieved from <http://www.fao.org/3/a-i3495e.pdf>
- Bosselmann, A. S. et al. (2009). The influence of shade trees on coffee quality in small holder coffee agroforestry systems in Southern Colombia. *Agriculture, Ecosystems & Environment*, 129(1-3), 253-260. Retrieved from <https://link.springer.com/content/pdf/10.1023%2FB%3AHUEC.0000043515.84334.76.pdf>
- Bote, A. D., & Struik, P. C. (2011). Effects of shade on growth, production and quality of coffee (*Coffea arabica*) in Ethiopia. *Journal of Horticulture & Forestry*, 3(11), 336-341. Retrieved from <http://edepot.wur.nl/192807>
- Chau, T. M. L. (2007). *The relative sustainability of coffee and mixed farming systems in DakLak Province, Vietnam* (May 2007, p. 120). Retrieved from https://dlc.library.columbia.edu/catalog/ldpd:497638/bytestreams/content/content?filename=Chau_T_M_Long_Thesis.pdf
- Cheesman, J., & Bennett, J. (2005). *Managing Groundwater Access in the Central Highlands (Tay Nguyen), Viet Nam*. Retrieved from <https://crawford.anu.edu.au/people/academic/jeff-bennett/managing-groundwater-access-central-highlands-tay-nguyen-viet-nam>
- Chi, T. T. N., & Yamada, R. (2002). Factors affecting farmers' adoption of technologies in farming system: A case study in Omon district, Can Tho province, Mekong Delta. *Omonrice*, 10, 94-100. Retrieved from https://pdfs.semanticscholar.org/f62f/b7147568c61610d4ad6b6de48f14a73f6f83.pdf?_ga=2.137038512.1825252548.1564645290-331571101.1559893676
- Cho, S. J., & McCarl, B. A. (2017). Climate change influences on crop mix shifts in the United States. *Scientific reports*. Nature Publishing Group, 7, p. 40845. Retrieved from <https://www.nature.com/articles/srep40845>
- Cuong, N. V. (2009). Measuring the impact of cash crops on household expenditure and poverty in rural Vietnam. *Asia-Pacific Development Journal*, 16(2), 87-112. <https://doi.org/10.18356/e04e983e-en>
- Czepiel, S. A. (2002). Maximum likelihood estimation of logistic regression models: Theory and implementation. Available at czep.net/stat/mlelr.pdf. Retrieved from https://pdfs.semanticscholar.org/fd70/35ab3fca912c1f77c34ff0c4435d41ebd0d3.pdf?_ga=2.198250415.1825252548.1564645290-331571101.1559893676

- Dak Lak, SO. (2018). *Dak Lak Statistical Yearbook 2018*. SO. Buon Ma Thuot: Statistical Publishing House.
- DakLak DARD. (2017). *DakLaks'sustainable coffee plan till 2020 and Vision 2030*. Retrieved from https://drive.google.com/file/d/1RteL7em-qZ26XPILLL_m68yfEgZq0XE5/view
- Diepart, J. C., & Allaverdian, C. (2018). *Farming Systems Analysis: A guidebook for researchers and development practitioners in Myanmar*. GRET. Retrieved from <https://www.gret.org/publication/farming-systems-analysis-guidebook-myanmar/?lang=en>
- Dinnes, D. L. et al. (2002). Nitrogen management strategies to reduce nitrate leaching in tile-drained Midwestern soils. *Agronomy Journal*, 94(1), 153-171. <https://doi.org/10.2134/agronj2002.0153>
- Dixon and Dennis. (2014). Perennial Crops and Trees: Targeting the Opportunities Within a Farming Systems Context. In *Perennial crops for food security* (p. 17). Retrieved from https://landinstitute.org/wp-content/uploads/2014/11/PF_FAO14_ch23.pdf
- Entz, M. H. et al. (2002). Potential of forages to diversify cropping systems in the Northern Great Plains. *Agronomy Journal*, 94(2), 240-250. <https://doi.org/10.2134/agronj2002.0240>
- FAO. (2016) *Agricultural Cost of Production Statistics Guidelines for Data Collection , Compilation and*. FAO, Rome. Retrieved from <http://gsars.org/wp-content/uploads/2016/02/Handbook-on-Agricultural-Cost-of-Production-Statistics-28-02-2016.pdf>
- Godfray, H. C. J. et al. (2010). Food security: The challenge of feeding 9 billion people. *Science*, 327(5967), 812-818. <https://doi.org/10.1126/science.1185383>
- Godoy, R., & Bennett, C. P. A. (1991). The economics of monocropping and intercropping by smallholders: The case of coconuts in Indonesia. *Human Ecology*, 19(1), 83-98. <https://doi.org/10.1007/BF00888978>
- GSO. (2018). *Results of the rural, agricultural and fishery census 2016*. Statistical publishing house.
- GSO. (2019). *Agriculture, hunting, forestry and fishing* (pp. 339-425). <https://doi.org/10.18356/f3ba966d-en-fr>
- Ha, D. T., & Shively, G. (2008). Coffee boom, coffee bust and smallholder response in Vietnam's Central Highlands. *Review of Development Economics*, 12(2), 312-326. <https://doi.org/10.1111/j.1467-9361.2007.00391.x>
- Hill, B., & Bradley, B. D. (2015). Comparison of farmers' incomes in the EU member states. *Report for European Parliament, Komisja Europejska, DG Internal Policies, Raport dla Parlamentu Europejskiego, Bruksela*. Retrieved from [http://www.europarl.europa.eu/RegData/etudes/STUD/2015/540374/IPOL_STU\(2015\)540374_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/STUD/2015/540374/IPOL_STU(2015)540374_EN.pdf)
- Ho, T. Q. et al. (2017). Which farming systems are efficient for Vietnamese coffee farmers? *Economic Analysis and Policy*, 56, 114-125. <https://doi.org/10.1016/j.eap.2017.09.002>
- Ho, T. Q. et al. (2018). Eco-efficiency analysis of sustainability-certified coffee production in Vietnam. *Journal of cleaner production*, 183, 251-260. <https://doi.org/10.1016/j.jclepro.2018.02.147>
- Hurri Sauli, et al. (2015). *Report Rural Finance of Coffee Smallholders in Vietnam - Case Study in Dak Nong Province*. Retrieved from <https://asia.ifad.org/documents/10751/084b3711-14d8-42f8-8d40-d604fa93e385>
- ICARD, O. (2002). The Impact of the Global Coffee Trade on Dak Lak Province, Viet Nam: Analysis and Policy Recommendations. *ICARD: Hanoi*. Retrieved from <http://hdl.handle.net/10919/65831>
- IDH. (2014). *A business case for sustainable coffee production in Colombia*. Retrieved from <http://www.snv.org/project/sustainable-coffee-programme>
- von Ketteler, L. (2018). *Factors influencing farmer's decision-making and resilience: The case of banana production in Amubri, Costa Rica*. Retrieved from <https://pdfs.semanticscholar.org/fa6d/f2c59bf8f85a10fe60e69c1e881eb34738c0.pdf>
- Kilpatrick, S. (2000). Education and training: Impacts on farm management practice. *The journal of agricultural education and extension*, 7(2), 105-116. <https://doi.org/10.1080/13892240008438811>
- Lan, Q., & Nguyen, T. (2018). *The struggling of pepper*, *Customesnews*. Retrieved from <https://customsnews.vn/the-struggling-price-of-pepper-6528.html>
- Lebailly, P. et al. (2015). *Développement rural et petite paysannerie en Asie du Sud-Est: Leçons d'expériences au Vietnam et au Cambodge*. L'Harmattan.
- Lindskog, E. et al. (2005). *When Rapid Changes in Environmental , Social and Economic Conditions Converge :*

- Challenges to Sustainable Livelihoods in Dak Lak, Vietnam*. Retrieved from https://mediamanager.sei.org/documents/Publications/Risk-livelihoods/SEI_Lindskog_Dak_Lak_2005.pdf
- MARD. (2017). *Coffee, pepper planting technology*.
- MARD. (2018). *Intercropping of perennial crop technology* (p. 2).
- Ngọc, H. T.-C. N. M. (2008). Phân tích dữ liệu nghiên cứu với SPSS (Analysis data for research with SPSS). *Nhà xuất bản Hồng Đức*.
- Nguyen, G. N. T., & Sarker, T. (2018). Sustainable coffee supply chain management: a case study in Buon Me Thuot City, Daklak, Vietnam. *International Journal of Corporate Social Responsibility*, 3(1), 1. <https://doi.org/10.1186/s40991-017-0024-x>
- Nguyen, T. H. (2017). *An Overview of Agricultural Pollution in Vietnam: The Crops Sector*. World Bank. Retrieved from <http://documents.worldbank.org/curated/en/681201516788003445/pdf/122934-WP-PUBLIC-Vietnam-crops-VNM.pdf>
- NIAPP. (2017). *Viet Nam pepper industry development planning to 2020, and vision 2030*. Retrieved from <http://www.niapp.org.vn/info/en/dtcl/giaidoan4/viet-nam-pepper-industry-development-planning-to-2020-and-vision-2030/54161>
- Oanh, D. T. (2019). *Thực trạng sản xuất hồ tiêu tại Tây Nguyên, Vietnam (The situation of pepper production in Central Highlands)*. Buon ma thuot. Retrieved from <http://wasi.org.vn/doi-net-ve-thuc-trang-san-xuat-ho-tieu-tai-tay-nguyen-hien-nay/>
- Ojo, M. A. et al. (2013). Multinomial logit analysis of factors affecting the choice of enterprise among small-holder yam and cassava farmers in Niger State, Nigeria. *Journal of Agricultural Sciences*, 4(1), 7-12. <https://doi.org/10.1080/09766898.2013.11884695>
- Okuthe, I. K. (2014). The influence of institutional factors on the adoption of integrated natural resource management technologies by small scale farmers in South Western Kenya. *Asian Journal of Agricultural Sciences*, 6(1), 16-32. Retrieved from <https://pdfs.semanticscholar.org/3704/6e25c66937ac4218df017caf2f22884b2344.pdf>
- Park, J. (2012). *Essays on Impacts of Climate Change on Agricultural Sector in the US*. Texas A & M University. <https://doi.org/10.1007/BF00140510>
- Pimentel, D. (1987). World agriculture and soil erosion. *BioScience*, 37(4), 277-283. <https://doi.org/10.2307/1310591>
- Provincial People's Committee of Dak Lak. (2018a). *Coffee annual report 2017-2018*. Retrieved from <https://daklak.gov.vn/documents/10181/872901/293.pdf>
- Provincial People's Committee of Dak Lak. (2018b). *The overview of Dak Lak province*. Retrieved from http://www.smfederation.org.sg/sites/default/files/smf/content/internationalization/Overview_of_Dak_Lak_Province.pdf
- Romyen, A., Sausue, P., & Charenjiratragul, S. (2018). Investigation of rubber-based intercropping system in Southern Thailand. *Kasetsart Journal of Social Sciences*, 39(1), 135-142. <https://doi.org/10.1016/j.kjss.2017.12.002>
- Sacks, W. J., & Kucharik, C. J. (2011). Crop management and phenology trends in the US Corn Belt: Impacts on yields, evapotranspiration and energy balance. *Agricultural and Forest Meteorology*, 151(7), 882-894. <https://doi.org/10.1016/j.agrformet.2011.02.010>
- SAFA, F. A. O. (2013). *Sustainability Assessment of Food and Agriculture systems*. FAO, Rome. Retrieved from <http://www.fao.org/3/a-at110e.pdf>
- Sarma, S., & Simpson, W. (2007). A panel multinomial logit analysis of elderly living arrangements: Evidence from aging in Manitoba longitudinal data, Canada. *Social Science & Medicine*, 65(12), 2539-2552. <https://doi.org/10.1016/j.socscimed.2007.07.012>
- Scherr, S. J. et al. (2015). *Steps toward green: Policy responses to the environmental footprint of commodity agriculture in East and Southeast Asia*. EcoAgriculture Partners. Retrieved from https://www.researchgate.net/publication/282768221_Steps_Toward_Green_Policy_Responses_to_the_Environmental_Footprint_of_Commodity_Agriculture_in_East_and_Southeast_Asia
- Spicka, J. et al. (2019). Approaches to estimation the farm-level economic viability and sustainability in

- agriculture: A literature review. *Agricultural Economics*. doi: 10.17221/269/2018-AGRICECON
- Statistic Solution. (2013). *Statistical analysis*. Retrieved from <http://www.statisticssolutions.com/directory-of-statistical-analyses/>
- tang Ton, N., & Buu, B. C. (2011). How to Prevent the Most Serious Diseases of Black Pepper (*Piper Nigrum* L.)—A Case Study of Vietnam. In *PC Annual Meeting in Lombok, Indonesia*. Retrieved from <http://www.ipcnet.org/admin/data/ses/1329362855thumb.pdf>
- Thang, P. D. (2018). *Pepper value chain in Dak Lak and Dak Nong*.
- Thi Duong Nga, N., & Thuy, P. T. (2017). Economic performance of coffee and pepper intercropping in Quang Hiep commune, Cumgar district, Dak Lak province. *Vietnam J. Agri.Sci.*, 15(9), 1277-1287. Retrieved from [https://orbi.uliege.be/bitstream/2268/235821/1/Economicperformanceofcoffee and pepper intercropping.pdf](https://orbi.uliege.be/bitstream/2268/235821/1/Economicperformanceofcoffee%20and%20pepper%20intercropping.pdf)
- Thuy, P. et al. (2019). Economic Analysis of Perennial Crop Systems in Dak Lak Province, Vietnam. *Sustainability*, 11(1), 81. <https://doi.org/2071-1050/11/1/81>
- Tranmer, M., & Elliot, M. (2008). Binary logistic regression. *Cathie Marsh for census and survey research, paper*, p. 20.
- Tu, V. H. et al. (2018). Modelling the factors affecting the adoption of eco-friendly rice production in the Vietnamese Mekong Delta. *Cogent Food & Agriculture*, 4(1), p. 1432538. <https://doi.org/10.1080/23311932.2018.1432538>
- Ward, M., Smith, G., & Tran, Q. (2016). This Report Contains Assessments of Commodity and Trade Issues Made by Usda Staff and Not Necessarily Statements of Official US Government Policy. *USDA Foreign Agricultural Service: Washington, DC, USA*, p. 11. Retrieved from [https://gain.fas.usda.gov/Recent GAIN Publications/Rice Price - Weekly_Bangkok_Thailand_2-5-2019.pdf](https://gain.fas.usda.gov/Recent%20GAIN%20Publications/Rice%20Price%20-%20Weekly%20Bangkok%20Thailand_2-5-2019.pdf)
- WASI and IAS. (2016). *Results about pepper pillar in Vietnam*. BMT city. Retrieved from <http://iasvn.org/chuyen-muc/Ket-quanghien-cuu-ve-cay-tru-tieu-8289.html>
- World Bank. (2016). *Transforming Vietnamese Agriculture: Gaining More from Less* (N. P. Mai, Ed.). Retrieved from <http://documents.worldbank.org/curated/en/116761474894023632/pdf/108510-WP-PUBLIC.pdf>

Appendix



Figure 3. The space of coffee and pepper crops at different farm approaches

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Determining Specialties of the Jordanian Court of Cassation in Its Civil Capacity (According to Reality and the Law)

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Abstract

The main objective of this research is to address the issue determining specialties of the Jordanian court of cassation according to reality and the law.

To achieve this objective, the analytical comparative research design method is used depending on the legal legislations and the diligence of the Judiciary to remove ambiguity from them because of their importance and direct effect in determining specialty of court of cassation and to distinguish it from court of subject.

This research is divided into two subjects: The essence of reality and essence of the law.

The second topic has addressed specialty of court of cassation according to reality and the law, divided into two requirements: considering court of cassation as the upper Judicial body, and the second requirement about considering court of subject third degree of the Jurisdiction degrees.

The research reached the presence of contradictions making it difficult to determine and to set a specific standard and the decisive line between what is reality and what is law.

Based on the results, it is recommended the necessity for in-depth review and amendment of these two laws, setting independent legal texts for the civil trials principal law, organizing the Judges' authority technically to separate between reality and the law.

Keywords: court of cassation, court of subject, reality, specialties, law

1. Introduction

This research aimed at examining reality and the law to distinguish between them because of the theoretical and practical importance of this subject, the concept of reality and the law and demystifying them will have the direct impact in determining the Jurisdiction of court of cassation.

It is inconceivable to distinguish between what is reality and what is a law and to set a separating line because they are not seen as two sides of one coin. The practical reality aborts each attempt to distinguish them. This is because the opponents are unable to present the facts of the conflict in isolation from the law, the best proper legal adaptation of the facts represented in their case, thereby adding to the facts legal description consistent with what they claim to be in their knowledge, knowing that they are un-obligatory to the Judge. The Judge is obliged to search for the legal basis that fits and applies perfectly to the reality provided by the litigants, so that the claim is consistent with the proper legal logic.

Therefore, the abstract reality which does not carry legal adjustment and which is difficult to obtain in isolation from the proper legal logic, abstract objectivity, which can be trusted without making improvement to be stand-alone.

Review of Judicial ruling in general shows a mix between reality and law, one aspect of which is more apparent than the other, whether the legal aspect or the real side.

In order to distinguish reality from the law it is necessary to follow the steps of the trial Judge in his ruling, in which he dealt with the issue by distinguishing between reality and law to assure that the facts of the case were verified and to find legal adaptation that suits the facts of the case to be properly applied to his findings.

2. The Extent to Which the Concept of Reality and Law Is Defined in Civil Cases

The legal necessity requires the disclosure of the concept of reality and law, since it is not easy to identify and

demystify the concept of reality in order to reach a result that enables us to reach a separation between what is the reality and what is the law, and therefore determine the jurisdiction of the Court of Cassation to consider the dispute before it¹. It is noted that the parties to the dispute have submitted the dispute to the court by presenting the disputed facts with overlapping ideas without having a reason to do so, or attempting to show the ambiguous contradiction between the facts of the case and the reality and what is the law. Revealing the contradiction has contributed to the existence of ideas which are not clear and overlapping with each other, which led to the separation between what is the reality and what is the law, and in practice before the Court of Cassation there is no basis for the idea of separation only in theory, knowing that the jurisdiction of the Court of Cassation as a civil concluding To adjudicate the issue, Which cannot be defined as deficient in legislation, which led the jurisprudential to resort to judicial principles and to use them to define the concept of reality and law without adopting a certain standard to follow as an example².

2.1 Essence of Reality

The civil action shall be based on the existence of the material facts in the matter to be presented to the court with the legal provisions. The court shall have the idea drawn from the facts and the arguments presented in addition to the evidence that proves these facts.

Therefore, the basis of the lawsuit is the presence or the absence of the facts of this matter, and the facts are the basic and the essential component of the lawsuit in the civil procedure law (procedural law) in which the case begins and gives the judge authority to deal with the case³. As in substantive law⁴, The jurists agree that the source of the obligation came from the case and the judicial jurisdiction came from the provisions of the Civil Procedure Law, and the substantive law that governs the matter before the court with all its elements and removes the generalization from the text as applicable, which can be considered a special text. Accordingly, the case before the Court (facts) is subject to procedural and substantive law in an orderly manner, as well as the jurisdiction of the Court and the procedures to be followed by the litigants, the burden of proof is on the litigants⁵, the judge applies the law by himself⁶.

According to some jurists of substantive law⁷, that facts are the source of legal ties, whether natural or optional, optional facts may be material or legal acts, and legal acts may be issued by one or both sides, and the consequences of these actions and facts the legal effects determined by the law⁸.

As some jurists see in the Code of Civil Procedure⁹ that the facts are the expression of everything that has changed from a legal position that was originally in existence and law ranked them legal effects, that is, they have become a new legal status that have different legal effects than it had before.

Consequently, facts are not considered a source of legal effects, but rather a reason for the existence of such effects, and therefore, facts cannot be considered as a source of origin or expiration of the right. Therefore, the difference of views in the analysis of facts between the interpretative law of the substantive and procedural lies in the philosophy of thought that belongs to it. When the judge applies the substantive law to the dispute before

¹ Al-Qasas, A'id Muhammad, Al-Wasit in explaining the Civil and Commercial Procedures Law, *Second Edition, Dar al-Ketub, Cairo*, 2010, p. 1150. http://raffy.me/books/view_book/169509.

² Rigaux, Lanatredou Controle de La de Cassation, Bruxelles, 1966, N50.76. *Nouveau Code de Procedure Civile, Dalloze 2002*, p.334. <https://doi.org/10.1017/S0165070X00001686>

³ Ibrahim, Mohamed Mahmoud, The General Theory in the Legal Adaptation of the Case in the Law of Pleadings, *Arab Thought House, Cairo*, 1982, p 221. <https://www.neelwafurat.com/itempage.aspx?id=egb28698-5028725&search=books>

⁴ Al-Sanhouri, Abdul Razzaq Ahmad, Al-Waseet in explaining the Civil Code, *Volume I, C1, Halabi Rights Publications, I 3, Beirut*, 2000, p 142. <https://www.law-arab.com/2015/02/Mediator-to-explain-civil-law-AbdulRazaq-Sanhuri-pdf.html>

⁵ Al-Sharqawi, Jamil, Evidence in Civil Subjects, *Dar al-Nahda al-Arabiya, Cairo*, 1976, p 23. http://www.biruni.tn/cgibin/gw_2009_4_3/chameleon?sessionid=2011101519434428426&skin=catalog.universitaire&lng=en&inst=consortium&host=41.229.250.19%2B1111%2BDEFAULT&patronhost=41.229.250.19%201111%20DEFAULT&searchid=10&source=PREVPAGE&pos=1&itempos=1&rootsearch=FR EEFORM&function=INITREQ&search=AUTHID&authid=963019&authidu=1003

⁶ Omar, Nabil Ismail, The Mediator in Challenging the Revocation of Civil and Commercial Materials, *New University Publishing House, Alexandria*, 2011, p 110. http://library.philadelphia.edu.jo/scripts/minisa.dll/144/LIBCATA/AR_DETAIL/ACCESSION_NUMBER+%2026538%20?SESSIONSEARCH

⁷ Al-Sanhouri, Abdel-Razzaq, Al-Waseet in explaining the Civil Law, C / 1, Vol.I, 3, *Halabi Publications, Beirut*, 2000, p 142.

⁸ Maliji, Ahmed, Encyclopedia of the appeal of judgments, appeal against the veto, *the National Center for Legal Issuances, C4, Cairo*, 2005, p 831. <https://library.asu.edu.bh/asu6.0/Libraries/start.aspx?fn=ApplySearch&ScopeID=&criteria1=2.&SearchText1=%D8%A7%D8%AD%D9%85%D8%AF+%D9%85%D9%84%D9%8A%D8%AC%D9%8A+>

⁹ Waly, Fathi-Zaghloul, Ahmed Maher, Theory of invalidity in the Code of Pleadings, *Dar al-Nahdha Arab Publishing and Distribution*, 1997, p 86. <http://www.daralnahda.com/>

him, he shall apply it in accordance with the power vested in him by the law of civil proceedings¹⁰.

The civil action, in accordance with the provisions of Article 56/6 of the Jordanian Civil Procedure Law, includes "the facts of the case and its bonds, the plaintiff's requests"¹¹. Accordingly, the Jordanian legislator in this text has defined the reality in the civil case, as did the Egyptian legislator in Article 63, paragraph 6 of the Egyptian Welfare Law No. 13 of 1986 and its amendments, contrary to the French legislator in paragraph 1 of Article 4 of the Act Proceedings No. 1123 of 1975¹².

The allegations contained in the requests of the plaintiff and the defendants have been provided in Article 30 of the French Lift Draft Act¹³.

Based on the analysis of the above-mentioned texts, it is found that both the Jordanian and Egyptian legislators have dealt with the facts presented by the plaintiff to the court and did not address the defendant's progress, knowing that each lawsuit has two parties, the plaintiff and the defendant.

And thus the role of the parties to the civil lawsuit in relation to the facts in line with the provisions of the law to submit the case, including the specific facts specifically denied ignorance and display clearly¹⁴, In order for the incident to be a product of the case, it must be specific, clear and reliable, and some law scholars call it a legal event¹⁵.

In order to justify the meaning when describing the reality of law, it is understood that the law is the engine of the event without it does not move, otherwise we are considered in a situation in which we cannot distinguish between what is the reality and what is the law, and be in a state of ambiguity and illusion, Furthermore, What can be reached as a result in the differentiation between them, and some scholars believe that it is sufficient to use evidence of the incident without going to call it the law¹⁶.

The burden of proving the facts lies with the parties to the civil action and does not require them to prove the law because the proof lies with the judge¹⁷, or proof of famous facts¹⁸.

Also the legal evidence does not need to prove to those who decided to benefit from it, but to dispense with any method of proof¹⁹, The burden of proof could be reversed from one party to the other party in the proceedings, as well as the use of the so-called presumption of presumption which intervenes or excludes one of the facts mentioned in the case²⁰.

Therefore, the Court shall not have a role in the amendment or cancellation of the facts mentioned in the case

¹⁰Sawi, Ahmed Al Sayed, Waseet in explaining the law of civil and commercial ports amended by Law No. 6 of 2007, *House of Arab Renaissance, Cairo, 2011*, p1126. <http://bit.ly/2D5rxZg>

¹¹ Jrdan Law of Civil Procedure No. 24 of 1988 and its Amendments, and Look at Decision of the Jordanian Court No. 8469 of 2018 published on the website of Qistas www.qistas.com.
<https://www.jba.org.jo/BarLawSystem/LawAndSystem.aspx>

¹²Art 4/1L'objet du litigeestdéterminé par les prétentionsrespectives des parties. <https://www.codes-et-lois.fr/code-de-procedure-civile/toc-dispositions-communes-toutes-juridictions-dispositions-limi-ca9638d-texte-integral>
Cesprétentionssontfixées par l'acteintroductifd'instanceet par les conclusions endéfense.Toutefoisl'objet du litigepeutêtremodifié par des demandesincidenteslorsquecelles-ci se rattachent aux prétentionsoriginaires par un lien suffisant.

Look at the details in French law number: -

Décret n° 75-1123 du 5 décembre 1975 instituant un nouveau code de procédurecivile Le nouveau code de procédurecivile et son annexe font l'objetd'une publication spéciale (C.P.C. 1 à 60) annexée au Journal officiel de ce jour.

¹³ Art 30: L'actionest le droit, pour l'auteurd'uneprétention, d'être entendu sur le fond de celle-ci afin que le juge la disebienou mal fondée.Pourl'adversaire, l'actionest le droit de discuter le bien-fondé de cetteprétention.Liensrelatifs à cetarticleCodifiépar:Décret 75-1123 1975-12-05 JORF 9 décembre 1975 rectificatif JORF 27 janvier 1976.

¹⁴ Al-Saawi, Ahmad Al-Sayed, Al-Waseet in explaining the Civil and Commercial Procedures Law, *Dar Al-Nahda Al-Arabia, Cairo, 2000*, p 572. <http://www.daralnahda.com/>

¹⁵ Ibrahim, Mohamed Mahmoud, The General Theory of the Legal Adaptation of the Case in the Law of Pleadings, *Arab Thought House, Cairo, 1982*, p. 251. <https://www.neelwafurat.com/itempage.aspx?id=egb28698-5028725&search=books>

¹⁶ Auji, Mustafa, Civil Law - Part II - Civil Liability, *Halabi Rights Publications, Third Edition*, p. 6. <https://www.neelwafurat.com/itempage.aspx?id=lbb313224-303264&search=books>.
<https://www.neelwafurat.com/itempage.aspx?id=egb28698-5028725&search=books> (Ibid),

¹⁷ Al-Sharqawi, Jamil, Evidence in Civil Law, p 23, (Ibid)

¹⁸ Al-Sawy, Ahmad Al-Sayed, Al-Waseet in explaining the Civil and Commercial Procedures Law, Cit., P. 133, (Ibid).

¹⁹ Mansour, Anis Mansour Al-Mansour, Explanation of the provisions of the Jordanian Evidence Law, in accordance with the latest amendments, *for the publication and distribution, 3rd edition, Amman, 2013*, p. 266. www.ithraajo.com

²⁰ Sultan, Anwar, Rules of Evidence in Civil and Commercial Materials, *New University Publishing House, 2005*, p. 121. <http://www.darggalex.com/>

law at all, and it cannot rule more than the adversaries requested or did not prove in the documents of the case²¹.

The court shall comply with the demands of the litigants in the final motions, and the facts of the case, which are basically valid for the prosecution shall be productive, otherwise the judgment thereof shall be subject to appeal²².

The exclusion of certain elements of the incident or the presumption of its existence is not considered an intervention by the judge in the facts of the case, rather is considered to be the core of his competence in determining the produced or unproduced facts, and this is not interference from the judge as one of the persons of proof and the status of the litigants in the case and independence and neutrality as a judge²³. But is based on a legal basis of evidence aimed at showing the truth that is considered a law, that is why the work of the judge is restricted by legal provisions that governs him not by his personal knowledge in accordance with the Evidence Act, which determined the facts considered to be valid over others²⁴. The judge can rely on facts in the case that were not exposed by the litigants in particular during the hearing of the case and were not upheld by them to prove their claim²⁵.

The litigants shall have the right to prove their claim by the testimony of the witnesses if the facts to be proved are permitted by the law to prove them by personal evidence. Therefore, it is necessary to determine the facts to be proved by the adversary for each individual witness²⁶, it is also possible that the case may require further elaboration of the facts or that the evidence provided is insufficient to prove it, in order to enforce the rule of law²⁷. The judge has the right in some laws to call any witness to hear his testimony, to be productive in the case to show the truth and to achieve justice²⁸.

If the testimony of the witness leads to the confirmation of new facts not provoked by the litigants, the court has the absolute power not to restrict the facts of the case to which the litigants have requested proof of personal evidence, that is, it can rely on the new facts in forming its conviction. In a fashion drawn by law²⁹, the court must allow the litigants to discuss the witness and the new facts in line with the right of defense protected by the law, which gives them the right to defend and to view the foregoing against them and respect for the principle of confrontation³⁰. In contrast to the Jordanian legislator only limited the right to request the hearing of witnesses against the litigants, and did not give the court this right as stipulated in Article 57 of the Jordanian Civil Procedure Law³¹.

2.2 Essence of Law

The law is a set of general and abstract rules that govern conduct of the individuals in the society and which are accompanied by a physical sanction and impose public authority to respect it, even by force³², the legal rule is

²¹ Aboudi, Abbas, Explanation of the Code of Civil Procedure, *House of Culture for publication and distribution*, 2009, p. 388, <http://www.daralthaqafa.com>. Hindi. Ahmed, Judgments of the Court of Cassation and its impact, *New University Publishing House, Alexandria*, 2006, 230. <http://www.dargalex.com/>.

²² Khater, Talaat Yusuf, Theory of Absence in the Civil Procedure Law, *House of Thought and Law for Publishing and Distribution*, 2014, p. 57. <https://www.neelwafurat.com/itempage.aspx?id=egb198208-5211381&search=books>

²³ Mansour, Anis Mansour Al-Mansour, p 33 (Ibid).

²⁴ Ibid, P 230,

²⁵ Le juge ne peut fonder sa décision sur des faits qui ne sont pas dans le débat. Parmi les éléments du débat, le juge peut prendre en considération même les faits que les parties n'auraient pas spécialement invoqués au soutien de leurs prétentions. Liens relatifs à cet article Cité par: Décret n°2013-547 du 26 juin 2013 - art. 4, v. init. Codifié par: Décret 75-1123 1975-12-05 JORF 9 décembre 1975 rectificatif JORF 27 janvier 1976. https://www.legifrance.gouv.fr/affichCodeArticle.do?sessionId=73CFFDC5A26CC7DFEF658FD783F87773.tplgfr29s_2?idArticle=LEGIARTI000006410118&cidTexte=LEGITEXT000006070680&dateTexte=20180605&categorieLien=id&oldAction=&nbResultRech=

²⁶ Look at Article 28/3 of the Jordanian Evidence Act of 1952 and the provisions of Article 59 of the Jordanian Civil and Look at Decision of the Jordanian Court No. 451 of 2019 published on the website of Qistas www.qistas.com.

Procedure Law No. 24 of 1988 and its amendments. Mansour, Anis Mansour Al-Mansour, P. 187 (Ibid).

²⁷ Omar, Nabil Ismail, P. 257 (Ibid).

²⁸ Look at Article 81 of the Iraqi Code of Evidence No. 107 of 1979. <http://iraqlid.hjc.iq:8080/LoadLawBook.aspx?page=1&SC=160120068365854>

²⁹ hindi, Ahmed, P. 231, (Ibid). Look at Article 127 and 131 of the Iraqi Evidence Law No. 107 of 1979.

³⁰ Abu Al-Wafa, Ahmed, Civil and Commercial Bridges under the New Law of Pleadings No. 13 of 1968 and the Law of Evidence No. 25 of 1968, *Encyclopedia of Knowledge, Alexandria, edition 14, 1986*, p. 58, Hosny, Hosny Studies, Cairo, 2005, p. 9. <https://books-library.online/d-673-download>

³¹ Look at Article 57 of the Jordanian Civil Procedure Law No. 24 of 1988 and its amendments. Anis Al-Mansour, P. 187 (Ibid), and Look at Decision of the Jordanian Court No. 451 of 2019 published on the website of Qistas www.qistas.com.

³² Dasouki, Mohamed Ibrahim, The General Theory of Law and the Right to Libyan Law, University of Qayouns Publications, edition 2nd,

the component of the law and does not necessarily correspond to the term legal provision and may be in a legal framework provided for, or may be customary rule, or may be derived from another legal source³³.

The Jordanian Civil Procedure Law did not specify the meaning of the law, but the Jordanian Civil Code provided for in Article 2 of this law. The judge knows the law in accordance with the principles of the law and is obliged to implement it without being required to apply it by the litigants³⁴, in order for the judge not to be a denier of justice, the legislator has created legal sources that he must follow according to what it has arranged for him in order, this means that, he searches one of them and follows the other until he finds the ruling on the dispute before him³⁵.

Therefore, the legal rule in all its components is not a matter of reality. It may be that the original came from the legislator's conception of such a situation, abstract as a model in which he wanted to rule on a matter that could be disputed and governed by this rule. The legal basis, as soon as it is promulgated, published and enforced, has been considered separated from the reality that came from it and its existence has been acquired to become compulsory, general and abstract and to belong to it. The generalization and abstraction are two sides of one coin³⁶, and aims to address people in their own qualities and not to the fact or facts alone, but the conditions determined by the letter³⁷.

In light of the above, it became clear that the judge is the legal expert who applies the law without assigning the litigants or their agents to submit the legal texts that govern the issues presented and agreed with their requests to resolve the dispute³⁸. The judge does not delegate his powers and authorities to third parties to find the legal texts governing the dispute before him, although he can rely on certain specialized experts to express their opinion on his specific technical matters, and this does not constitute a waiver of his legal authorities³⁹.

The judge is obliged to search for the legal basis that is fully applicable to the dispute presented and governed by it, and due for application, and it does not matter what is said about the multiplicity of legal provisions or their abundance, ambiguity or the absence of a text that governs to dispose of this duty⁴⁰. The judge also should have the certain knowledge about what the legal rule contains and its interpretation according to legal methods to reach the wisdom of legislation⁴¹.

In light of the foregoing, the litigants shall be submitted to the Registry of the facts, attributions and requests of the Registry, and shall not be bound by the legal basis governing these facts⁴². The Court shall accept this lawsuit without modifying its elements represented in the reason⁴³, The determination of the dispute before it in accordance with the provisions of the law, and the determination of the appropriate legal description of the case is in accordance with the facts of the case law, without restricting the legal adaptation of the case to the parties is considered a non-binding movement by the parties⁴⁴. The judge has defined the procedural roles between him and the litigants in the civil case⁴⁵. Therefore, we must address the commanding and complementary legal rules in order to determine the scope of the judge's obligation. Some rules of the Civil Procedure Code are complementary, In other words, that these rules are not related to public order, such as the relative formality defenses⁴⁶, spatial jurisdiction⁴⁷.

1989, pp. 13-15. Abdel-MoneimFarag Al-Sadda, *Origins of Law, Al-Ma'aref Establishment, Alexandria, 1994*, pp. 11-14. <https://books.google.jo/books?id=jEeOQgAACAAJ>

³³ Al-Zu'bi, Awad Ahmad, *Introduction to the Law of Law science, Enrichment for Publishing and Distribution, Amman, edition 4th, 2017*, p. 164. <http://link.qnl.qa/resource/jVvuABs1ywY/>

³⁴ Jordanian Civil Law No. 43 of 1976.

³⁵ Al-Zu'bi, Awad Ahmad, *Introduction to Law*, p 96, *ibid*.

³⁶ Al-Sadada, A.-M. F. *Origins of Law, Al-Ma'aref Establishment, Alexandria, 1994*, p 16. <https://books-library.online/d-673-download>

³⁷ Al-Douri, Ghalib, *The Introduction to Law, especially the Jordanian, Irbid, Hammad Center, edition 4th, p 12.*). <https://www.neelwafurat.com/itempage.aspx?id=lbb116366-76528&search=books>

³⁸ Omar, Nabil Ismail, P 110 (*Ibid*).

³⁹ Look at Article 83 of the Jordanian Civil Procedure Law No. 24 of 1988 and its amendments.

⁴⁰ Al-Zu'bi, Awad Ahmad, P 100 (*Ibid*).

⁴¹ *Ibid*, p 100.

⁴² Look at Article 56 of the Jordanian Civil Procedure Law No. 24 of 1988 and its amendments.

⁴³ Abu Al-Wafa, A. *Arbitration in Arab Laws, Origin of Knowledge, Alexandria*, p. 22.

⁴⁴ Abu Al-Wafa, A. *The Theory of Judgments in the Code of Pleadings, Alexandria, Al-Ma'aref Establishment, edition 5th, 1985*, p 271.

⁴⁵ *Ibid* p 271.

⁴⁶ Bakri, Abdelkader, and Bashir, Zuhair, *Introduction to the study of law, the Higher Education Press, Mosul, 1989*, p. 108. <http://www.iraqnla-iq.com/opac/fullrecr.php?nid=37415&hl=ara>. Aboudi, Abbas, p 279 (*Ibid*).

The judge is obliged to apply the custom to his own initiative, if he does not find a provision in the legislation to be considered and recognized as one of the sources of the legal norm⁴⁸, is not considered an intervening in the facts⁴⁹. The customary rule may at times be unknown and unclear, and it is difficult to ascertain its merits. In this case, the judge may ask the opponent whose alleged existence to establish the evidence⁵⁰.

In light of the foregoing as mentioned previously, it is clear that the question of reality and the law is purely theoretical. The attempt to distinguish between the two is possible. The adversaries have absolute power over the facts of the case and the power of the judge according to the law address the case and his knowledge of the legal rules and his ability to bring down the facts of the dispute to resolve it⁵¹.

Based on the above opinions, the researcher believes that the distinction between the facts and the law in practice may show difficulties starting from writing the case list to the decision that will resolve the dispute through all the stages of the case due to the deficiency in the Jordanian Civil Procedure Law, In contrast to the French legislature, which defined the authorities of the judge and the adversaries to distinguish between the facts and the law. It stipulated that the judge has to ask the litigants to present the reality, and in turn he provides the appropriate legal texts about the facts⁵².

Referring to the French Code of Procedure No. 1123-75 of 5 December 1975, it appears that the legislator organized this matter technically, determining the jurisdiction of the court and the adversaries in terms of facts and law trying to determine what the reality is and what is the law, he defined the role of litigants fact and law.

The judge fulfills the public interest in applying the law while the parties seek to achieve their own interest, that is, the distribution of the law roles between them, the prosecution is the plaintiff who filed the lawsuit and claimed disputed facts he has the burden of proving the claim and the defendant did not deliver what the plaintiff claimed in application of the beginning of ownership of the dispute in accordance with the text Articles 1 and 2 of the French Code of Procedure⁵³, the litigants have the right to initiate or terminate a case before a judgment is rendered in which the dispute is resolved or in accordance with the provisions of the law, and the proceedings are well served⁵⁴.

The French legislator has dealt with the issues of reality (Les Faits) in the following articles, where article 6 provides for the power of the litigants to submit the facts produced in the case. The claim of a list made by the plaintiff contains what he claims and the defendant provides his answer, and the facts produced are the abstract reasons devoid of legal and subsidized adaptation with evidence⁵⁵, and provided that the judge is not entitled to judge by his personal knowledge or facts that were not presented in the list of the case and discussed by the litigants in Article 7/1⁵⁶, the second paragraph of Article 7 stipulated the right of the judge to take some facts that came in the context of the case and That is, the judge has some kind of authority over the facts that have been discussed during the course of the case and have not been adhered to by the litigants and may have been productive in the chapter of the dispute⁵⁷. Article 8 of the judge shall ask the litigants to extend their claim and explain the ambiguity to be resolved⁵⁸.

The French legislator has dealt with the issues of law in articles 12 and 13 of the annexes law. Article 12 of the law stipulates the task from the judge in the application of the law. In some of the paragraphs, this article included some of the powers of the litigants. In accordance with the provisions of the law, so that the litigants are not obliged to submit the provisions of the law governing what they claim, and in the second part the judge will

⁴⁷ Aboudi, Abbas, P. 154 (Ibid).

⁴⁸ Al-Zu'bi, Awad Ahmad, P. 164, (Ibid).

⁴⁹ Ibid p 145.

⁵⁰ Tawfiq Hassan Faraj, Introduction to Legal Sciences: General Theory of Law, *University House, Beirut, 1988*, p. 258. <http://www.philadelphia.edu.jo/newlibrary/2014-11-24-13-12-11/580-2014-11-23-15-59-31/88455-26908>

⁵¹ Aboudi, Abbas, P. 184, (Ibid).

⁵² French Code of Procedure No. 1123-75, 5/12/1975.

⁵³ Art 1 "Seules les parties introduisent l'instance, hors les cas où la loi en dispose autrement. Elles ont la liberté d'y mettre fin avant qu'elle ne s'éteigne par l'effet du jugement ou en vertu de la loi", et Art 2 "Les parties conduisent l'instance sous les charges qui leur incombent. Il leur appartient d'accomplir les actes de la procédure dans les formes et délais requis"

⁵⁴ Art 3 "Le juge veille au bon déroulement de l'instance ; il a le pouvoir d'impartir les délais et d'ordonner les mesures nécessaires".

⁵⁵ Art 6 "Al'appui de leurs prétentions, les parties ont la charge d'alléguer les faits propres à les fonder".

⁵⁶ Art 7 "Le juge ne peut fonder sa décision sur des faits qui ne sont pas dans le débat".

⁵⁷ Art 7 "Parmi les éléments du débat, le juge peut prendre en considération même les faits que les parties n'auraient pas spécialement invoqués au soutien de leurs prétentions".

⁵⁸ Art 8 "Le juge peut inviter les parties à fournir les explications de fait qu'il estime nécessaires à la solution du litige".

adapt the case before him based on the facts provided by the adversaries carefully because the mistake in the adjustment entails a wrong application in the ruling requiring the repeal, The judge is obliged to pronounce This, it is not an interference of the judge in the facts, and the third part presents the facts and the judge sets the appropriate texts to apply them to the facts, regardless of what the litigants have provided for the legal adaptation of the facts⁵⁹. In light of this and what is stated in the text of article 16 Of the French Bridge Act, which allows adversaries to discuss what the judge may judge and to reconcile this article with the former part of article 12, finds that the judge cannot judge on the basis of what has been adapted by himself, without confrontation between the adversaries⁶⁰.

Article 4 of paragraph 12 stipulates that if the parties have the right to dispose of it on a legal basis or agreed upon by the parties, the judge cannot change it. Thus, the parties may restrict the judge to this adjustment and determine the law applicable to the dispute to settle it. Applicable to such facts, such power conferred on the parties to the violation of the legal text will lead to the wrong application of the law.

Article 12, paragraph 5, also provides for the right of parties to resort to the alternative way of settling disputes rather than resorting to the natural way (the court) in order to create a balance between the judge and the parties to the conflict within the scope of the law.

Accordingly, the French legislator, in article 12, paragraphs 1, 2 and 3, of the Code of Plea, gave the judge absolute authority within the scope of the law and contradicted in paragraphs 4 and 5 of the same article which freed the litigants from this obligation and provided that the law is not Exclusive to the judge.

Article 13 62 of the French Code of Procedure states that the judge has the right to ask the parties to submit their observations on the texts of the law that he wishes to apply to the facts that are necessary for the resolution of the dispute, in accordance with the aforementioned article 8, the place talks about the law.

3. The Jurisdiction of the Court of Cassation Shall Be Held in Accordance With Reality and Law

The Court of Cassation is the highest judicial body in the State. It is responsible for monitoring the integrity of the application of the law and does not consider as third degree of litigation. It does not have jurisdiction to look into the facts, rather its role is limited only to examine the contested judgment from the legal side, thus determining its role only on the good application of the law and interpretation in order to stabilize the legal principles and unite them between all courts.

The jurisdiction of the Court of Cassation in the civil case shall be held by examining the appeals submitted to it as a court of law, which is the primary function of the court as a court of appeal by observing the validity of the application of the law and reviewing the integrity of the procedures followed by the court of the subject during its consideration of the case and issuing its decision. The security of the adversaries to establish justice and equality preserving the unity of legislation⁶¹.

Court of Cassation has a very important role in establishing, consolidating and stabilizing legal principles, which can be consulted and guided in cases before the courts, especially in complex legal matters, to find a proper application of the legal norm and to rely on it for similar cases that may be brought before the courts. The law was applied in a different manner and appealed in front of it⁶².

Court of Cassation is not considered as a third degree of litigation and is a court of law in the civil judiciary⁶³, the last resort to the litigants in terms of proper application of the law. The function of the Court of Cassation is to analyze the legal texts and to unite the views of the judiciary Understand and apply legal texts.

⁵⁹ Art 12 "Le juge tranche le litige conformément aux règles de droit qui lui sont applicables.

Il doit donner ou restituer leur exacte qualification aux faits et actes litigieux sans s'arrêter à la dénomination que les parties en auraient proposée. Toutefois, il ne peut changer la dénomination ou le fondement juridique lorsque les parties, en vertu d'un accord exprès et pour les droits dont elles ont la libre disposition, l'ont lié par les qualifications et points de droit auxquelles elles entendent limiter le débat...".

⁶⁰ Art 16 "Le juge doit, en toutes circonstances, faire observer et observer lui-même le principe de la contradiction. Il ne peut retenir, dans sa décision, les moyens, les explications et les documents invoqués ou produits par les parties que si celles-ci ont été à même d'en débattre contradictoirement. Il ne peut fonder sa décision sur les moyens de droit qu'il a relevés d'office sans avoir au préalable invité les parties à présenter leurs observations.

⁶¹ Aboudi, Abbas, Rules and Pleadings, Sharif, Dar al-Senhuri Legal and Political Science, Iraq, 2015, p. 418. Sharif, Hamed, Criminal Cassation, *An Applied and Analytical Study of the Law of Challenging the Denunciation of Criminal Proceedings*, University Thought House, Alexandria, 1999, p. 49. <http://dfgpublish.com/>

⁶² Saif, Ramzi, al-Waseet in explaining the law of pleadings, *Dar al-Nahda al-Arabiya*, edition 7th, Cairo, 1970, p165. <http://www.daralnahda.com/>

⁶³ Aboudi, Abbas, P 11, (Ipid).

The Court of Cassation shall appeal the judgment for its violation of the law in application and interpretation. It shall establish a list of cassations on the grounds for contesting the contested judgment in the legal sense, and no control of the Court of Cassation on the facts of the case⁶⁴, that the Court of Cassation considers and settles the appeal submitted to it in legal terms.

Therefore, there is a single court of cassation in the state and the multiplicity of bodies are for practical necessity. It is unreasonable to have a number of courts in the state to cassata, because in this confusion of work and finding multiple directions will certainly contribute to the multiplicity of legal principles, and does not achieve Unity for Judiciary and Law⁶⁵.

This leads us to ask the following question: Does the Court of Cassation consider a supreme judicial body to consider judicial decisions legally or is it a third degree of litigation? It is not easy to answer the question because the determination of the jurisdiction of the Court of Cassation depends on the procedural effect of reality and the law. If the Court of Cassation is considered a supreme court of law, its jurisdiction shall be subject only to considering the legally contested judgments and has no authority to examine the facts. The litigation shall be subject to a review of the facts of the case and the ruling on the subject matter of the dispute if appealed.

The French legislator settled the matter in Article 604 of the Code of Pleadings as a Supreme Court to review the verdicts in relation to the violation of the law⁶⁶, whereas the facts are not examined because they are within the jurisdiction of the Court of the subject and the reasons for the veto should be focused on violating the law without the facts. The matter has to do with the interpretation of the law. Court of Cassation has been prohibited from dealing with it, since it is within the jurisdiction of the legislative authority⁶⁷, and it does not have recourse to the power of legislation to issue an interpretative law in a vague and unclear matter in the case before it. The legal principles of the French Court of Cassation are not binding on the courts because they are not a law and their violation is not grounds for appeal, although the decisions of Court of Cassation have literary power and do not rise to the rank of law. Therefore, the judge may violate a principle of the legal principles issued by the Court of Cassation, and may adopt a decision of a lower court and refutes a previous decision if he finds that this principle deserves consideration⁶⁸.

The Jordanian legislator is much closer to the French legislator than he has been in this matter. The reasons for the appeal must be based on the violation of the law in the contested decision, which shows that the Court of Cassation in civil cases does not discuss the reasons for the appeal⁶⁹. The Jordanian legislator has also allowed the Court of Cassation to face the facts and to rule on the matter when the subject is valid for judgment without returning it to the court of matter on which the subject was previously presented and in which it was ruled contrary to the provisions of the French legislature⁷⁰.

3.1 Court of Cassation Shall Be Considered as a Supreme Judicial Body to View the Judgments

The appeal in the manner of cassation before Court of Cassation shall be regarded as an exceptional way of examining the judgments of courts of appeal (court of the subject) and shall investigate the violation of the law. It is not permissible to appeal against all the rulings of Court of Appeal, but rather according to the provisions of the legislator and exclusively in Article 191 of the Jordanian Civil Procedure Law⁷¹.

Accordingly, the challenge appeal by cassation discrimination does not allow the adversaries to submit their case again and objectively before Court of Cassation, and it is not permitted to provide new evidence for the first time before it has not been submitted before the Court of the matter⁷². In light of the above, separating between the

⁶⁴ Omar, Nabil Ismail, P 460, (Ibid).

⁶⁵ Al-Akhras, Nashat Abdul Rahman, Explanation of Civil Procedure, *Dar Al-Thaqafa for Publishing and Distribution, edition 2nd, Amman, 2010*, p 67. <http://www.daralthaqafa.com/DefaultAr.aspx>

⁶⁶ Art 604 "Le pourvoi en cassation tend à faire censurer par la Cour de cassation la non-conformité du jugement qu'il attaque aux règles de droit". Modifié par Décret 79-941 1979-11-07 art. 2 JORF 9 novembre 1979 en vigueur le 1 janvier 1980.

⁶⁷ Abdul Wahab, Abdul Razzaq, challenging the provisions of discrimination in the law of civil lifts, *Dar al-Hikma for printing and publishing, Baghdad, 1991*, p 305. <http://www.daralnahda.com/>

⁶⁸ Omar, Nabil Ismai, P 720, (Ibid).

⁶⁹ Shoshari, Salahuddin, Explanation of the Code of Civil Procedure, *Dar Al-Thaqafa for Publishing and Distribution, edition 2nd, Amman, 2010*, p 388. <http://www.daralthaqafa.com/DefaultAr.aspx>

⁷⁰ Aboudi, Abbas, 2009, p. 387, (Ibid).

⁷¹ Jordanian Civil Procedure Law No. 24 of 1988 and its amendments and Look at Decision of the Jordanian Court No. 3558 and 62 of 2019 published on the website of Qistas www.qistas.com.

⁷² Aboudi, Abbas, 2009, p 427, (Ibid).

facts and the law⁷³, Court of Cassation is a supreme court of law and it is not a third degree of litigation. Its jurisdiction is to consider the contested decision in legal terms only without considering the facts. The Court of Cassation is a court of law which is responsible for properly monitoring the application of the law and its explanation in accordance with the law.

The Jordanian legislator, in Article 198 of the Jordanian Civil Trials Law, stipulates the conditions in which the provisions are distinguished by six reasons as follows⁷⁴:

1. If the contested judgment is based on a violation of the law or an error in its application or interpretation⁷⁵.
2. If there is a nullity in the judgment or a nullification of the proceedings, it shall affect the judgment⁷⁶.
3. If the judgment is final, contrary to another ruling already issued between the opponents themselves without changing their qualities and the dispute is related to the same right and the case and the power of the case whether pushed or not pushed on this.
4. If the judgment has not been established on a legal basis so that its reasons do not allow Court of Cassation to exercise its control.
5. If the judgment ignored the dismissal of a claim or the judgment of something not requested by the litigants or more than they requested⁷⁷.
6. If the judgment and actions taken in the case are in explicit violation of the law or the assets of the trial are a violation of the duties of court, the court of cassation shall decide to revoke it even if the privileged person does not appear in its regulations to state the reasons for the said violation. Then it shall not be a reason for the deficiency unless it is objected to in the courts of first instance and appeal. The objection was neglected and then one of the parties referred to it in his discriminatory list and it would change the face of the referee⁷⁸.

In reviewing this text, the Jordanian legislator mentioned the reasons behind the error in applying the law to expand the umbrella of Court of Cassation⁷⁹, and to challenge discrimination from unusual methods, it is not sufficient to challenge the loss of the appellant, but must provide one of the reasons cited by the legislator exclusively and sufficient to be available⁸⁰.

Concerning the first reason: If the contested judgment is contrary to the applicable legal text, with clarity that cannot be interpreted but did not take it, and the violation in the operative sentence⁸¹, or commenting an error in the application, the judge overlooked an explicit rule of law applicable and applied The text does not apply to the facts of the case, which led to a different result of the wisdom of the text, or misinterpretation of the text in its interpretation, interpreting it out of its spirit or wisdom, which led to change in its the intended meaning⁸².

Therefore, the court based on this reason cannot resort to the facts, On the contrary, it must handle the facts to the court of the subject and check the text of the law applied by the court of the subject to these facts, whether it is true or not, since it is not a third degree of litigation.

Regarding the second reason, the nullification in the ruling is due to reasons that lead to nullification, such as the judge of the ruling is not the judge of deliberation or not causing the decision, and the invalidity of the procedural side of the lawsuit, which is represented in any of its actions took place during the judgment, or was his predecessor and influenced the ruling and his abolition was Discriminatory⁸³, the acceptance of the court evidence after the declaration of the conclusion of the trial and relying on it in the judgment, which necessitates the dissolution of the decision and return the case to its source to execute the legal requirement, cannot be limited to these reasons.

⁷³ Ibid, p 116.

⁷⁴ Jordanian Civil Procedure Law No. 24 of 1988 and its amendments.

⁷⁵ Look at Decision of the Jordanian Court No. 277 of 2019 published on the website of Qistas www.qistas.com.

⁷⁶ Ibid.

⁷⁷ Look at Decision of the Jordanian Court No. 1197 of 2017 published on the website of Qistas www.qistas.com.

⁷⁸ Look at Decision of the Jordanian Court No. 2733 and 429 and 451 of 2019 published on the website of Qistas www.qistas.com.

⁷⁹ Aboudi, Abbas, 2009, p 422, (Ibid).

⁸⁰ Decision of the Jordanian Court of Cassation No. 178/84, p. 990, in 1984. <http://www.jc.jo/node/3918>

⁸¹ Fahmi, Muhammad Hamid, Explanation of civil and commercial proceedings, 1940, item 745.

⁸² Ashmawi, Mahmood, Rules of Pleading in Civil and Mixed Law, *Monchaat Al Maaref, Alexandria, Article 1136, Vol. 2, 1927*, p 990. <https://books-library.online/d-673-download>

⁸³ Aboudi, Abbas, 2009, p 391, (Ibid).

The nullification of the proceedings is of two types, the first of which is related to public order, which is raised by the court on its own without the demand of the adversaries, and the second is related to the rights of the adversaries, there is no reason to appeal unless asked and neglected by the court. Therefore, Court of Cassation did not consider the substantive aspect, not even the legal aspect, but considered the violation of fundamental procedures, and therefore Court of Cassation cannot be considered as a third degree of litigation.

The third reason is the contradiction of the provisions, that is, if a ruling is made and became irrevocable and contradicts with a previous rule between the same opponents and did not change their qualities and the dispute is related to the same right cause and place and won the power of the case being prosecuted, this reason gave the Court of Cassation power to veto the ruling without considering the facts and the law, but the defect in the ruling itself and Court of Cassation is not a third degree of litigation⁸⁴.

For the fourth reason: if the judgment is not based on a legal basis, so that the reasons for which Court of Cassation does not permit it to exercise control, the legislator gave the court of may, in this case, a mandate to rule if it was not based on a legal basis by understanding the facts of the case. To understand reality in isolation from the legal evidence, and therefore Court of Cassation is not a third degree of litigation.

As for the fifth reason: "If the arbiter fails to rule on one of the demands or rule something that the adversaries did not request or more than they requested," it is found that the legislator has provided several pictures. If the judge fails to rule on a request in the case law, To cause his ruling and mention the reasons that led him to reject or not to accept the claims or defenses of the litigants, and the texts that were adopted in his decision⁸⁵, therefore his omission is considered as a claim for discrimination and his decision is flawed and presented for revocation because of a material error. The same verdict is not flawed in the case of the ill case of AloAia or law⁸⁶. The second form of judgment is something that the litigants did not ask for or more than they requested⁸⁷. The law requires that the case be brought up by a regulation⁸⁸ and must include its subject matter and requests⁸⁹. Therefore, the court and the litigants must comply with the requests in the case law. Something that the litigants did not request or ruled more than they requested. The decision is flawed. Court of Cassation has considered this defect without going to the facts or the law, and therefore the Court of Cassation does not considers a third degree of litigation.

As for the sixth reason, if the ruling and the actions taken in the case are in explicit violation of the law, or if the assets of the trial are an offense related to the duties of the court, court of cassation shall decide to revoke it even if the appealed person in his regulations does not mention the reasons for the said violation.

However, if the violation is related to the rights of the adversaries, then there is no reason for the repeal, unless it is objected in the Courts of First Instance and Appeal, and the objection is neglected and then one of the parties mentioned in its discriminatory list, which would change the status of the ruling.

Accordingly, the violation relating to the rights of the litigants shall not be grounds for revocation unless it is objected by the litigants before the court of the subject, and was disregarded and then challenged by one of the litigants in the list of discrimination which would have changed the ruling. This does not change the nature of the jurisdiction of Court of Cassation, a degree of litigation is considered.

In light of the above⁹⁰, some jurists believe that what the legislator mentioned in the text of the aforementioned article agree as a branch of one origin which is contrary to the law, and that the reasons cited are no more than pictures of violations of the law. Therefore, Not in the reasons cited by the legislator and exclusively in article 198 above, because discrimination is an unusual method of appeal, that is, if there are reasons in the list of appeal not specified by the legislator be presented for non-acceptance⁹¹, "A reason for denying the repetition of the reasons for appeal pursuant to article 193 (b) of this Law shall not be valid The principles of civil trials do not include a reason for appeal pursuant to article 198 of the said law.

Article 248 of the Egyptian Penal Code stipulates that:

⁸⁴ Abdulwahab, Abdul Razzaq, challenging the provisions of discrimination in the Civil Procedure Code, *Baghdad edition*, p 201.

⁸⁵ Aboudi, Abbas, 2009, p 422, (Ibid).

⁸⁶ Decision of the Jordanian Court of Cassation No. 751/96, p. 2946, 1997. <http://www.jc.jo/decision-tmeez?page=2>

⁸⁷ alquda, Mufleh Awad, Civil Procedure and Judicial Organization, *Dar Al-Thaqafa for Publishing and Distribution, Amman., edition 2nd, 2017*, p 426. <http://www.daralnahda.com/>

⁸⁸ Ibid, p 215.

⁸⁹ Article 56, paragraphs 5 and 6, Jordanian Civil Procedure Law

⁹⁰ Alquda, Mufleh Awad, p 379, (Ibid). Abdulwahab, Abdul Razak, p 75 (Ibid).

⁹¹ Decision of the Court of Cassation No. 546, 1994, No. 7000 of 2018, No. 5348 of 2018. <http://www.jc.jo/decision>

1. If the contested judgment is based on a violation of the law or an error in application or interpretation.
2. If a nullity of the judgment or a nullification of the proceedings has affected the judgment⁹².

Article 249 on the separation of the court in a dispute contrary to another rule already issued between the opponents themselves and the power of the matter ordered⁹³.

Egyptian jurisprudence considers that all the reasons stated by the Egyptian legislator mentioned in the above texts indicate that the appeal must be based on violation of the law⁹⁴. Accordingly, the Egyptian Court of Cassation has jurisdiction to consider the case before it in case of violation of the law and not the reality⁹⁵. Therefore, the appeal against the cassation before Court of Cassation does not allow it to take up the case again and look at understanding of the facts and their estimation in order to reach the judgment because it is not within its jurisdiction and the Court of the matter does not observe this. As it is merely a material fact that is dealt with by the trial judge in accordance with linguistic and logical criteria which are not subject to legal rules in which it is possible to make a mistake; The discrimination cannot be contested for a factual or legal reason that is involved with an incident that was not dealt with by the adversaries at a previous stage⁹⁶, Of the jurisdiction of the subject judge⁹⁷, and therefore the Court of Cassation does not consider a third degree of litigation.

The French legislator, in Article 604⁹⁸, pleadings on the grounds for appeal, namely, if the contested decision is contrary to the law or lack of jurisdiction or to bypass authority or violation of formal procedures and if it contradicts with the provisions.

In referring to the above text, it is found unanimously that the reasons for the veto in the French law reside in its role in violating the law without the facts and for example cited by the legislator exclusively, so the jurisdiction of the French Court of Cassation control the law without exposure to facts because it is the jurisdiction of Court of subject and is not allowed to expose To interpret the text because that is within the jurisdiction of the legislature⁹⁹. If Court of Cassation finds ambiguity in the legal text applicable to the matter before it, it shall resort to the legislative authority to issue an interpretative law and shall be binding on all courts of different degrees.

Thus, the legal principles of Court of Cassation are not binding on the lower courts, since their legal system does not take precedents. Therefore, judgments of the lower courts are not subject to a veto if they violate a principle of the Court of Cassation. On the contrary, these provisions are worthy of attention in their new decision and fall back on their previous principles¹⁰⁰, thus are not being considered a third degree of litigation.

3.2 The Court of Cassation is a Third Degree of Litigation

In light of the conclusion of the previous request, considering Court of Cassation, it examines the validity of law enforcement on the facts as a supreme court in the state to examine the provisions in terms of violation of the law without reality. Court of Cassation recognizes the facts as received from the court of the subject. The appellant presents his list of discrimination, in the decision made on the basis of violating the law in line with Jordanian, Egyptian and French legislation.

Therefore, the Court of Cassation does not have the right to consider the facts if it decides to nullify the decision by being a Supreme Court, if it is to return the papers to the Court of Cassation to adjudicate the case. The Court of subject has the option to follow criticism and guidance of the previous decision of Court of Cassation.

It appears that the position of the Jordanian legislature in defining the description of Court of Cassation as s Supreme Court or a third degree of litigation may differ from that of the Egyptian and French legislators.

Its Noted that the Jordanian legislator, after determining the reasons for the appeal in Article 198, the principles of civil trials, which cannot accept the appeal by repeal, if at least one of the reasons mentioned in the above

⁹² Civil and Commercial Procedural Law of the Arab Republic of Egypt No. 13 of 1986. <http://www.lcrdy.org/2016/02/25/>

⁹³ *ibid*

⁹⁴ Omar, Nabil Ismail, p 180, (Ibid).

⁹⁵ Aboudi, Abbas, p 400, (Ibid).

⁹⁶ *Ibid* p 394.

⁹⁷ Al-Qudah, Mufleh, p 419, (Ibid).

⁹⁸ Art 604 "Le pourvoicassation tend à faire censurer par la Cour de cassation la non-conformité du jugement qu'il attaque aux règles de droit".

⁹⁹ Abdul Wahab, Abdul Razzaq, challenging the provisions of discrimination in the law of civil lifts, *Dar al-Hikma for printing and publishing, Baghdad, 1991*, p 305.

¹⁰⁰ Shoshari, Salahuddin, p 427, (Ibid).

article, which are all related to the violation of the law, but he moved from that the text of article 197 Principles of civil trials:

1. Court of Cassation shall consider the minutes of the proceedings and the rules submitted by the parties and the other documents of the case to be examined only if it decides by itself or at the request of one of the parties, to consider them as a pleading and agreed upon that¹⁰¹.

2. If the Court decides to hear the case, a case shall be set for the trial and the parties shall be invited to attend it.

3.(A) On the appointed day, the Court shall commence the hearing of the case in the presence of a representative of the parties' lawyers and after hearing the arguments of the present and clarifying what it deems necessary to clarify the case and makes its decision.

3.(B). No party shall be allowed to plead before Court of Cassation except through a lawyer. If no lawyer of any panel is present at the hearing, the Court shall consider the case in light of the minutes of the trial, the regulations and the existing papers and issue its decision¹⁰².

If the court is unable to dismiss the case at the same session, it postpones its vision to another session, and whether the parties' lawyer attended the hearing or the subsequent sessions, or all or some of them failed to make their decision either by supporting the verdict or by revoking it and returning it to the court that issued it.

4. Court of cassation shall have the right to adjudicate the case without returning it to its source if the matter is valid for the judgment and the judgment it makes in this manner shall not accept objection or review¹⁰³.

Therefore, by trying to reconcile the previous texts, we find that the position of the Jordanian legislator is not fixed, and it is not possible to find a specific criterion used in the description of Court of Cassation, and based on the principle of separation between the issues of reality and law and refer to the text of article 197/1¹⁰⁴ of the civil assets that it considers the records of the case and other papers of the lawsuit, the examination of the records of the lawsuit and other documents of the case indicates that the text has been absolute and the jurisprudential rule says absolute is being released unless it is bound, therefore, Court of Cassation can consider the case as if it is related to matters of fact or law. Thus, Court of Cassation becomes court of subject, and it is inconceivable, for the difference of its function and its special status.

In addition, the provisions of paragraph 2 and 3 / a of Article 197 of civil law stipulate that: "... a day shall be set for the trial and the parties shall be invited to attend it, and ... after hearing the arguments of the present and inquiring into what "The Court of Cassation has the authority to invite the parties to the case and to hear the arguments of those who were present and ask the litigants and answer their questions. The question that arises in this regard is whether the questions that are asked about them are related to reality or the law? The answer is, of course, to the issues of reality because the duty is to clarify the issues of reality rests with the parties as a general rule that does not accept exception, and the issues of law are the jurisdiction of the court as a general principle that does not accept the exception. And that the litigants provided a legal adaptation of the case, which was not binding to the court¹⁰⁵, Article 4, paragraph 4, of the same article, which gave Court of Cassation the power to adjudicate the matter, if it ruled that the contested judgment had been overturned in contravention of the law or that there was an error in its application or interpretation, This is considered to be a third degree of litigation. This provokes the disapproval of the form of the position of the Jordanian legislator in this text, because he withdraws from the principle of litigation on two degrees and grants this role to Court of Cassation¹⁰⁶.

The jurisprudents of Jordanian law have unanimously agreed¹⁰⁷ that Court of Cassation is competent to hear the case from a legal point of view as a court of law and does not rule on the matter because it is simply not a third degree of litigation, but it performs its duties by scrutinizing the case papers. The Jordanian legislator has taken an exception in this text, Granting Court of Cassation the right to adjudicate the case if its subject matter is valid for the judgment, This is done in order to simplify the proceedings of litigation before the litigants.

¹⁰¹ Look at Decision of the Jordanian Court No. 4901 of 2018 published on the website of Qistas www.qistas.com.

¹⁰² Look at Decision of the Jordanian Court No. 1736 of 2018 published on the website of Qistas www.qistas.com.

¹⁰³ Jordanian Civil Procedure Law No. 24 of 1988 and its amendments, and Look at Decision of the Jordanian Court No. 8774 of 2018 published on the website of Qistas www.qistas.com.

¹⁰⁴ Look at decision of the Jordanian Court of Cassation No. 7508 of 2018 and No. 4906 of 2018 and Decision of the Jordanian court No. 6329 of 2018 published on the website of Qistas www.qista.com.

¹⁰⁵ Al-Akhras, Nashat Abdul Rahman,, p 36, (Ibid).

¹⁰⁶ Al-Qudah, Mufleh Awad, p 437, (Ibid), and look at Decision of the Jordanian Court No. 4922 and 3901 of 2017 published on the website of Qistas www.qista.com

¹⁰⁷ Ibid, p 80.

Therefore, the researcher sees when the ruling was annulled by Court of Cassation because of violation of the law in general, and this violation is based on a formal or substantive basis, which will result in to the point that was annulled, and therefore the case needs a resolution to resolve this dispute, Court of Cassation will continue to consider it until judgment. It must consider it from the point of annulment and re-examines it in terms of law and reality. Therefore, Court of Cassation shall be considered as a third degree of litigation.

In light of the legal provisions of the Jordanian legislator to determine the jurisdiction of Court of Cassation, it is unclear and imprecise to describe them, because using these texts we cannot reach a reliable description of them.

In accordance with the Egyptian legislation, Court of Cassation is considered the offenses referred to in the contested decision relating to the violation of the law without consideration of the facts¹⁰⁸, as stipulated in Article 269/4 of the Egyptian Code of Procedure¹⁰⁹, which gives Court of Cassation the right to subject matter to the dispute if the contested decision in the matter is already valid for adjudicating it or challenging the decision for the second time, in order to expedite the adjudication of cases and reduce procedures¹¹⁰, the legislator has been deviated from the general jurisdiction of Court of Cassation and made it a third degree of litigation.

The French legislator has defined the specialties of Court of appeal carefully in considering the contested judgment in violation of the law only¹¹¹, and does not accept the challenge in the reality, and returning the case file to its source in case the decision was for fear to be far from its primary function which is the appropriate application of the law to take the legal requirement. Article 15 and 16 of the French Lift Act left Court of Cassation has the right to consider the matter and to adjudicate the case before it without sending it to its source, provided that it is valid for pronouncing the sentence¹¹², knowing that Court of Cassation did not use this jurisdiction to monitor the application of the law.

Results of this research agree with the opinions of a group of Jordanian lawyers, retired judges, clients and legal consultants regarding the need for amendments in the functions and responsibilities of court of cassation.

Determining such functions and responsibilities will help in avoiding the contradictions and speeding up solving the disputes between the opponents, in addition to saving time and money as result of the lengthly pleadings

4. Conclusion and Recommendations

4.1 Conclusion

This research reached the conclusion the necessity for distinguishing between what inters in the reality limits and what inters in the law limits.

The research also determined the big obstacle which stands behind the inability to determine what reality is and what is law represents in the legislative deficit in the situational laws including the Jordanian civil prosecutions principles law in which we find contradictions and ambiguity in the texts.

Since it is seen that some time assigning and determining the functions, and at other times distributing the procedural tasks between the judge and the opponents in the civil issues, and determining the functions of the judge by the law and the opponents by reality to achieve the desired goal from the law which is the justice based on the cooperation between the judge and the opponents.

We can see the direct effect of this situation on describing court of cassation as a law court, as a supreme court in the state performing the function checking out the dispute from the legal side without looking at the reality, or as a third degree of the litigations degrees, and the relation of this with the litigation principle at two degrees. If it related the rule it has no right to settle the issue, rather it should return the case back to its source to perform the legal duty.

¹⁰⁸ Aboudi, Abbas, p. 400, (Ibid).

¹⁰⁹ Egyptian Procedural Law No. 13 of 1986 and its amendments.

¹¹⁰ Omar, Nabil Isma'il, P. 464, (Ibid).

¹¹¹ Article 604 of the French Code of Procedure is mentioned earlier.

¹¹² Art 15 "Les parties doivent se faire connaître mutuellement en temps utile les moyens de fait sur lesquels elles fondent leurs prétentions, les éléments de preuve qu'elles produisent et les moyens de droit qu'elles invoquent, afin que chacune soit à même d'organiser sa défense".

Art 16 "Le juge doit, en toutes circonstances, faire observer et observer lui-même le principe de la contradiction. Il ne peut retenir, dans sa décision, les moyens, les explications et les documents invoqués ou produits par les parties que si celles-ci ont été à même d'en débattre contradictoirement. Il ne peut fonder sa décision sur les moyens de droit qu'il a relevés d'office sans avoir au préalable invité les parties à présenter leurs observations.

Art 604 "Le pourvoi en cassation tend à faire censurer par la Cour de cassation la non-conformité du jugement qu'il attaque aux règles de droit". Modifié par Décret 79-941 1979-11-07 art. 2 JORF 9 novembre 1979 en vigueur le 1 janvier 1980.

4.2 Recommendations

Based on the discussion, it is recommended the follow:

- 1- Setting independent legal texts regarding the civil litigation principles law to organize the judge's and the opponent's authority in a technical and accurate way to separate between what is law and what is reality as implemented by the French legislator.
- 2- Amending text of article (197) from the Jordanian civil litigations principles, and determining function of court of cassation as higher judicial body specializes in looking at the appeal from the legal side.
- 3- Restricting court of cassation from solving the introduced to it lawsuits from the topic side in case of canceling the decision whatever is the reason, and it should turn the file to the court of subject to solve it once again.
- 4- Implementing what has been mentioned in the French pleading law regarding the solutions that have been addressed in this research regarding distinguishing between reality and the law, since the French law is considered a distinguish law.

References

Arabic References

- Aboudi, A. (2009). *Explanation of the Code of Civil Procedure*. House of Culture for publication and distribution.
- Aboudi, A. (2009). *Explanation of the provisions of the Code of Civil Procedure*. House of Culture for publication and distribution, for the year.
- Aboudi, A. (2015). *Rules and Pleadings*. Al-Sharif, Dar al-Sanhoori Law and Political Science, Iraq.
- Abu Al Wafa, A. *Civil and commercial hearings under the new law of procedures No. 13 of 1968*.
- Abu Al-Wafa, A. (1985). *The Theory of Judgments in the Code of Pleadings*. Alexandria, Al-Ma'aref Establishment, No. 5.
- Al-Akhras, N. A. (2010). *Explanation of Civil Procedure*. Dar Al-Thaqafa for Publishing and Distribution, II, Amman.
- Al-Hajjar, H. M. (2003). *Methodology in Law from Theory to Practice, II*. Beirut.
- Al-Qassas, A. M. (2010). *Al-Wasit in explaining the Civil and Commercial Procedures Law* (2nd ed.). Dar Al-Ketub, Cairo.
- Al-Sadah, A.-M. F. (1994). *Origins of Law*. Al-Ma'aref Establishment, Alexandria.
- Al-Sanhoury, A. R. A. (2000). *Al-Waseet in Explaining Civil Law* (Vol. I, C1). Halabi Rights Publications, I3, Beirut.
- Al-Sharif, H. (1999). *Criminal Cassation, Applied and Analytical Study of the Law of Challenging the Revocation of Criminal Proceedings*. University Thought House, Alexandria.
- Al-Zu'bi, A. A. (2017). *Introduction to the Law science*. Enrichment for Publishing and Distribution, Amman, I(4).
- Ashmawi, M. (1927). *Rules of Pleading in Civil and Mixed Law, Monchaat Al Maaref, Article 1136, C2*.
- Auji, M. *Civil Law - Part II - Civil Liability* (3rd ed.). Halabi Publications.
- Bakri, A., & Bashir, Z. (1989). *The approach to the study of law*. The Higher Education Press, Mosul.
- Cherkaoui, J. (1976). *Evidence in Civil Materials*. Dar al-Nahda al-Arabiya, Cairo.
- Desouki, M. I. (1989). *The General Theory of Law and the Right in the Libyan Law, II*. Cairo University Press.
- El-Sawy, A. El. S. (2000). *Al-Waseet in explaining the Civil and Commercial Procedures Law*. Dar Al-Nahda Al-Arabiya, Cairo.
- Fahmi, M. H. (1940). *Explanation of Civil and Commercial Pleadings, item 745*.
- Hindi, A. (2006). *Judgments of the Court of Cassation and its impact*. New University Publishing House, Alexandria.
- Hosny, A. M. H. (2005). *The Diamond Encyclopedia* (Part VII). Hosny Center for Studies, Cairo.
- Ibrahim, M. M. (1982). *The General Theory in the Legal Adaptation of the Case in the Law of Pleadings*. Dar

Al-Fikr Al-Arabi, Cairo.

Khater, T. Y. (2014). *The Theory of nullification in Civil Procedure Law, I*. Dar Al-Fikr and Law for Publishing and Distribution.

Khater, T. Y. (2014). *Theory of Absence in the Civil Procedure Law*. House of Thought and Law for Publishing and Distribution.

League, G. *The approach to the science of law, especially the Jordanian* (I 4). Irbid, Hammad Center.

Mansour, A. M. Al-M. (2013). *Explanation of the provisions of the Jordanian Evidence Law, in accordance with the latest amendments, for publication and distribution* (3rd ed.). Amman.

Meligy, A. (2005). *Encyclopedia of the appeal of judgments, Appeal against the veto*. National Center for Legal Issuances, C4, Cairo.

Omar, N. I. (2011). *The Mediator in the Appeal by the repealing of civil and commercial articles*. New University Publishing House, Alexandria.

Saif, R. (1970). *Al-Waseet in explaining the law of pleadings*. Dar al-Nahda al-Arabia, i 7, Cairo.

Sawy, A. El S. (2011). *Al-Waseet in explaining the law of civil and commercial ports, amended by Law No. 6 of 2007*. Dar Al-Nahda Al-Arabia, Cairo.

Shoshari, S. (2010). *Explanation of the Code of Civil Procedure*. House of Culture for publication and distribution.

Sultan, A. (2005). *Rules of Evidence in Civil and Commercial Articles*. New University Publishing House.

Sultan, A. (2005). *Rules of Evidence in Civil and Commercial Materials*. New University Publishing House.

Tawfiq, H. F. (1990). *Introduction to Legal Sciences: General Theory of Law*. University House.

The Judges, M. A. (2017). *Civil Procedure and Judicial Organization*. Dar Al-Thaqafa for Publishing and Distribution, No. 2.

Wahab, A., & Razzaq, A. (1991). *Challenging the Provisions of Discrimination in the Law of the Civilhearings*. Dar Al-Hikma for Printing and Publishing, Baghdad.

Wali, F.-Z., & Maher, A. (1997). *Theory of Nullity in the law of pleadings*. Dar al-Nahda Arab Publishing and Distribution, I 2.

Laws

Jordanian Civil Law No. 43 of 1976.

- 1- Civil and Commercial Crises Law of the Arab Republic of Egypt No. 13 of 1986 and its amendments.
- 2- Iraqi Refinance Act No. 107 of 1979.
- 3- The French Lifts Act No. 1123-75, 1975.

Judgments

- 1- Decision of the Court of Cassation Rights No. 546/93, 1994.
- 2- Decision of the Court of Cassation Rights No. 751/96, 1997.
- 3- Decisions of the Jordanian Court of Cassation No. 7508, 4906, 6329, 7000 and 5348 for the year 2018, published on the Qurtas website.
- 4- Decision of the Court of Cassation Rights No. 178/84, 1984
- 5- Decision of the Court of Cassation Rights No. 178/84, 1984.

Foreign references

Rigaux, Lanature du Controle de La de Cassation, Bruxelles, 1966, N50.76. Nouveau Code de Procedure Civile, Dalloze 2002, p.334.

Website

<http://bit.ly/2D5rxZg>

<http://dfgpublish.com/>

<http://iraqlid.hjc.iq>

<http://library.philadelphia.edu.jo>
<http://link.qnl.qa>
<http://www.daralnahda.com>
<https://books.google.jo>
<https://books-library.online>
<https://doi.org>
<https://library.asu.edu>
www.biruni.tn
www.codes-et-lois.fr
www.daralnahda.com
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www.qistas.com

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Horizontal Versus Vertical Coopetition: The Tunisian Manufacturing Industry

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Abstract

By opting for coopetition strategy, some companies prefer the horizontal one while others opt for the vertical. Furthermore, some coopetitions are rather aggressive, while others are rather cooperative. Nevertheless, the reasons for using one or the other of these strategies remain still ambiguous.

This article aims to explain the reasons, both internal and external, for the use of each type of coopetition and its nature. By adopting a quantitative hypothetico-deductive approach, and through a sample of Tunisian industrial companies, this study confirms that the need for strategic capabilities holds the strongest weight that the competitive intensity in the explanation of the coopetition type and its nature.

Keywords: competition intensity, strategic capabilities, horizontal coopetition, vertical coopetition, propensity for aggression, propensity for cooperation

1. Introduction

This research is part of the new approaches aimed at studying the explanatory factors of different strategies of coopetition (horizontal and vertical) and their nature (aggressive or cooperative).

In fact, the coopetition strategy is becoming the strategic standard and the only option for ensuring the survival and sustainable development of businesses in most sectors (Cygler et al., 2018). However, companies differ in their choice of coopetition. Some choose horizontal coopetition, while others opt for vertical coopetition. On the other hand some coopetitions are rather aggressive whereas others are rather cooperative. Nevertheless, the reasons for using one or the other of these strategies remain ambiguous.

In fact, the explanatory factors of coopetition have given rise, despite timidly, to a certain amount of empirical research (Dagnino et al., 2007; Fernandez & Le Roy, 2010; Gnyawali & Park, 2009; Sanou, 2012; Roy et al., 2013; Le Roy et al., 2014). Nevertheless, these researches have not yet resulted in a consensus on the reasons for using this new strategy. Indeed, the literature admits the existence of two main types of factors that may explain the use of coopetition strategies. External factors refer in particular to shorter product life cycles, industrial concentration, sectoral maturity, environmental uncertainty (Gnyawali & Park, 2009; Sanou, 2012; Chiambaretto & Fernandez, 2016; Cygler et al., 2018). However, internal factors revolve around the need for strategic resources (Bengtson & Kock, 1999; Dagnino et al., 2007; Fernandez & Le Roy, 2010).

In addition, comparative studies of the explanatory factors of the different strategies of coopetition (horizontal and vertical) and their nature (aggressive or cooperative) are still much more timid (Hillman et al., 2009; Gnyawali & Park, 2011; Le Roy & Sanou, 2014; Chiambaretto & Fernandez, 2016).

The aim of this article is therefore to fill this gap and to study the comparative explanatory factors of vertical coopetition and horizontal coopetition and their natures (aggressive or cooperative) in the Tunisian manufacturing industry by focusing on the intensity' competition as the main external factor and the need for strategic capabilities as the main internal factor. The question then will be:

To what extent does the intensity of competition and the need for strategic capabilities lead to the choice of horizontal coopetition at the expense of vertical coopetition? And is this chosen coopetition rather aggressive or cooperative?

In an attempt to answer this question, certain hypotheses were emitted and tested on a sample of Tunisian industrial enterprises. Empirical results will no doubt useful to practitioners as well as public decision-makers.

For this, this document has been structured as follows: a first section was devoted to the review of the literature dealing firstly with coopetition, in particular its theoretical field, its typology, and its advantages and disadvantages, and secondly on the determinants of coopetition, with particular reference to the approach to competitive forces and the resource approach. A second section is dedicated to the development of the research model and hypotheses. The third section was devoted to the presentation of the research methodology that has been adopted in this article. The fourth section of this document presents the results of the research. The next section focused on discussions of research findings. A later section was intended to deduce the managerial implications. Finally, the last section was devoted to the conclusions and limitations of the study.

2. Theoretical Framework

2.1 *The Strategic Choices of Coopetition*

Cooperation and competition have been widely regarded as the two opposite extremes of a broad continuum, because these two strategies are based on two entirely opposite paradigms (the theory of industrial organizations and socio-economic theory) or even incompatible (Fernandez et al., 2010). Nevertheless, the end of the 90s, experienced recognized attempts to bring these two opposing currents closer together by referring to the term "alliances between competitors" which corresponds to "associations between several competing or potentially competing firms" (Hamel et al., 1989; Contractor & Lorange, 1988; Doz, 1996; Garrette & Dussauge, 1995). However, the strong growth of recourse to this type of strategy that involves multiple adversaries and partners has given rise to a new terminology to describe this rather complex and paradoxical phenomenon, namely "coopetition". (Fernandez et al., 2010; Fernandez & Le Roy, 2010) According to Fernandez et al. (2010), this new concept of "coopetition" adds to that of "alliances between competitors" a new dimension namely the simultaneity of these two dimensions, which have always been seen as antagonisms, was the basic foundation of this new concept. In the framework of the coopetition strategy, cooperation and competition are rather considered as interdependent opposites (Chen, 2008, cited by Fernandez & Le Roy, 2010).

At this stage, it is not unimportant to recall that this increasing use of coopetition, which marked the end of the 1990s and which brings together simultaneously cooperative strategies and competitive strategies (Luo, 2004), finds explanations in the unusual intensification of competition, the products cycles of life becoming shorter, and increased research and development costs.

2.2 *Theoretical Fields, Definitions and Paradoxes of Coopetition*

Coopetition, as conceived by new research in this field, does not correspond to an extension of cooperation theories or competition theories. It is rather a new field of autonomous research (Battista Dagnino, quoted by Le Roy & Yami, 2007). Researchers thus refer to certain theories to arrive at a precise and specific conceptualization of coopetition, in particular game theory (Nalebuff & Brandenburger, 1996; Lado et al., 1997), resource-based theory, and the theory of social networks (Lado et al., 1997). Therefore, coopetition was first theorized from the notion of "value network" and was defined by Nalebuff and Brandenburger (1996) as the reconciliation of the "complementary" interest that manifests itself when competition and cooperation occur simultaneously (Le Roy & Yami, 2007).

This definition clearly reveals the difference between coopetition, competition and cooperation, in the following three points:

- "The interdependence between companies is both a source of economic value creation and the place of sharing of this economic value;
- The interdependence between firms is based on a positive and variable sum game that must bring mutual benefits to partners, but not necessarily equitable ones;
- In a positive and variable sum game, the interdependence of firms is based on a function of inter-firm interests "(Dagnino et al., 2007, p. 95).

Subsequently, and over the years, the term coopetition has had several definitions. According to Bengtson and Kock (2000, p. 412) coopetition corresponds to a "dyadic and paradoxical relationship that emerges when two companies cooperate in some activities and at the same time compete with each other on other activities". For Chien and Peng (2005), it is defined as a cooperative and competitive strategy pursued by the company for the purpose of developing its market or limiting costs, strengthening its competitiveness and winning a leading position in the market.

Coopetition is also defined as the simultaneous adoption of two contradictory behaviors: aggressive behavior and / or cooperative behavior with competitors. To say that a firm is coopetitive is to say that it also knows a high

level of competitive aggressiveness and cooperativity (Sanou, 2012). In the same vein, Luo (2007) sees coopetition as simultaneous collaboration and competition with the same adversary partners. On their part, Dagnino et al. (2007, p. 95) consider that coopetition is *"a system of actors that interact on the basis of a partial congruence of interests and objectives"*.

Given these definitions, we can predict that a firm is coopetitive when it knows both a high level of competitive aggressiveness and a high level of cooperativity (Sanou, 2012). These two dimensions (strong aggressiveness and strong cooperation) coexist in coopetition and demonstrate its paradoxical nature. The first dimension of competitive aggressiveness assumes that the firm is aggressive when it initiates a large number of complex competitive actions and reactions within a limited time frame (Gnyawali, He, & Madhava, 2006; Sanou & Le Roy, 2012; Ferrier, 2001; Smith, Grimm, & Gannon, 1992). The second dimension of coopetition is that of cooperativity, which is defined as *"the propensity of the firm to initiate cooperative actions and to become involved in cooperative actions in its sector of activity"* (Sanou, 2012).

2.3 Typology of Coopetition

The review of the literature allowed us to retain several typologies of coopetitions based on various criteria proposed by various authors. In this regard, we mention Dagnino and Padula (2002), who propose four forms of coopetition based on two axes, namely the number of companies involved in the cooperation and the number of activities in the value chain carried out in cooperation with competitors (cited by Le Roy & Yami, 2007): complex dyadic coopetition, simple dyadic coopetition, simple network coopetition, complex network coopetition. As for Garraffo (2002), he distinguishes four types of coopetition:

- Passive collaboration (mutual interaction required by law)
- Active collaboration (voluntary collaboration) in the form of agreements or coordinated actions
- Passive competition (indirect non-personal marketing)
- Active competition (includes sales activities)

Czaron and Rogalski (2014) propose another type of coopetition, namely lateral coopetition or of network. For his part, Luo (2004, 2005) presents a typology of coopetitive relations with multinationals based on the intensity of competitive and collaborative relationships. Lamberg, Ojala and Sajasalo (2007) propose a typology of coopetition based on the analysis of the value chain of the forest industry. By combining the typologies proposed by Lamberg, Ojala and Sajasalo (2007) and by Luo (2004), Gnyawali et al. (2008) offer a model derived from the combination of the model proposed by Dagnino and Padula (2002) with the distinction between horizontal and vertical coopetition. In the context of horizontal coopetition, cooperation takes place between the two competitors on some elements of the value chain that are upstream or downstream of the products for which they are in competition (Hamouti et al., 2014; Bengtsson et al., 2000; Le Roy et al., 2010). However, at the level of vertical coopetition, firms collaborate in partnership form in a client-supplier relationship, and are competing upstream or downstream of this cooperation (Pellegrin-Boucher & Le Roy, 2009).

2.4 Benefits and Risks of Coopetition

Research on coopetition (Bengtsson & Kock, 1999; Nalebuff & Brandenburger, 1996) see themselves concordant that the pursuit of a coopetition strategy allows firms to benefit both from the competitive advantages manifested by stimulating the search for new productive, rent-generating combinations, as well as the benefits of cooperation, which consist in gaining access to scarce and complementary resources of competitors (Chetty et al., 2003; Zineldin, 2004; Pellegrin-Boucher & Le Roy, 2009) particularly they are non-tangible and unavailable in order to reduce then the risk of imitation (Cygler et al., 2018). Coopetition stimulates also the innovation of partners and the development of technologies (Cygler et al., 2018).

However, these researches do not fail to discuss the risks of coopetition, which can be summed up in the high probability of imitation of one's own resources and competences by the adversary partner who can often be the main hidden motive of this coopetition (Prévo, 2007 quoted by Fernandez & Le Roy, 2010). A loss of organizational independence and decision-making is also a dangerous threat stemming from coopetition (Cygler et al., 2018).

Moreover, coopetition can be a way to chase information or other intangible assets or even a trick for spying on the partner (Lavie, 2006). In addition, conflicts in coopetition can be a source of weakening of the cooperation efficiency and even of the objectives effectiveness pursued individually or commonly by coopetitors. They can also negatively affect the image of the company (Cygler et al., 2018). Besides, coopetition may incur operating costs that increase the financial situation of the company (Ritala et al., 1996).

3. The Determinants of the Strategic Choices of Coopetition

Based on network theory and resource-based theory, Bengtson and Kock (1999) defined two factors that determine the choice of firms between a purely competitive, purely cooperative or coopetition strategy, namely: the need for surplus resources and the relative position on the sector. According to these two authors, it is according to the intensity of these two factors (strong or weak) that companies choose a particular type of behavior.

Table 1. Relationships between competitors

		Relative position on sector	
		Strong	Low
Need in resources excess	Strong	Coopetition	Competition
	Low	Cooperation	Coexistence

Source: Dagnino et al., 2007

In the same vein, Fernandez and Le Roy (2010), while relying on the theory of resources, show that coopetition is not preferred as long as the internal resources of the company are sufficient and that the latter arrives at to achieve a competitive advantage on its own. However, it is because of the increased complexity of products and services that firms are often unable to own and develop the resources needed for their production alone. Indeed, companies' resources are heterogeneous, which makes them potentially complementary and interdependent. This is what drives them to look for the partner with the most complementary resources. Unfortunately, the most complementary potential partner can often be one of their main competitors. For Gnyawali and Park (2009), several factors are likely to favor the continuation of a coopetition strategy, namely: the short life cycles of products (characteristics of the industry); high research and development costs, technological convergence. On this point, Sanou (2012) has shown that the pursuit of a coopetition strategy is determined by sectoral variables such as industrial concentration, the sectoral maturity of the firm's domestic market; and its international presence. On the other hand, the adoption of such a strategy is also determined by the size of the firm. Referring to the resource dependency theory, Chiambaretto and Fernandez (2016) argue that environmental uncertainty can be a determining factor that fosters the development of coopetition strategies for the reason that with the intensification of competition, the need for similar resources can often only be found in a competitor.

As part of this work, we first refer to Porter's competitive forces approach in that it combines the main external factors proposed in the literature (industrial concentration, environmental uncertainty related to competitive intensity, etc.) that can guide companies' strategic choices, especially coopetition. In a second step, we try to explain the use of coopetition based on the resource approach (Bengtson & Kock, 1999; Fernandez & Le Roy, 2010).

3.1 The Competitive Forces Approach

The early work of the Harvard Business School (1965) on corporate strategy eventually established the LCAG model which postulates that a company must conduct a double external analysis (opportunities and threats of the environment) and internal (forces and weaknesses of the company) to develop its own strategy. Despite their merit, this work does not attribute a valuable role to the knowledge of competition. The latter did not know a first explicit and expanded development only with the work of Porter (1980) on competitive forces that come from the industrial economy (SCP) but are much richer. Indeed, according to Porter (1980, p. 3) "*the structure of a sector has a strong influence on the determination of the competitive rules of the game and on the strategies to which the firm is able to resort*". As a result, the competitive intensity relative to a business sector depends on the state of the five structural forces (existing competitors, potential entrants, substitute products, customers, suppliers).

This approach allows a complete and enriched analysis of the industry and its evolution, competitors and the positioning of the company in relation to its competitors, which allows the development of a competitive strategy aimed at supporting the position of the company on the market (Galbreath & Galvin, 2008).

Nevertheless, despite its considerable contributions, this approach is criticized for its structuralist view of competition as it only uses the characteristics of the sector in the development of companies' strategic choices, while neglecting the actual interaction of competitors. Added to this is the interest brought in external factors at

the expense of internal factors in the development of strategic choices. Indeed, the differences in performance recorded within the same industry have led some authors to question the real antecedents of strategic choices of companies (Rumelt, 1984). The resource approach brings, for the first time, the answer.

3.2 The RBV Approach

3.2.1 Emergence and Basic Ideas

This approach dates back to the work of Barnard (1938), Seznich (1957), and Chandler (1962), who emphasized the role of the firm's capabilities in using its resources for the creation of economic performance. However, it was Penrose (1959) who proposed a first new vision of the company while defining it as a collection of physical resources (factories, equipment, land, materials, etc.) and human resources (workers, management team, engineers, etc.) who are available to managers. While attributing to this "internal world" of resources a weight comparable to that of external forces (competitive pressure or customer requirements), this author presumes that it is the combination of these resources that generates the creation of unique subjective and specific productive opportunities that promote growth for each company.

Following this work, the Harvard School (1965), which has proposed a composite model (SWOT), has combined both external factors (opportunities and threats of the environment) and internal factors (strengths and weaknesses of the company) when developing strategic choices. These later internal factors incorporate implicitly the resources and skills of the company.

However, the first institutionalization of the resource approach goes back to the work of Wernerfelt (1984) who proposed the term Resource Based View (RBV) and which stipulated that the resources of the enterprise correspond to its strengths and weaknesses as established by the SWOT model. The author Barney (1991), meanwhile, has just linked the resources of the company to the sustainable and durable competitive advantage that can create, by considering that these resources correspond to "*all assets, capacities, organizational processes, firm's attributes, information, knowledge, etc. controlled by a firm that allows it to design and implement strategies that improve its efficiency and effectiveness*".

This approach has generated a certain revolution in the strategic thinking of the moment when the company sees itself as a collection of unique resources with a considerable impact not only on its evolution and its strategic development choices, but also on its competitive advantage and its annuities (Barney, 1991; Dierickx & Cool, 1989). It breaks with traditional approaches where resources are considered mobile and homogeneous to attribute the cause of companies' heterogeneity to the fact that these resources are not perfectly mobile between firms (Barney, 1991). Added to this, is the fact that companies do not always have the same resource endowments (Foss, 1997).

In this regard, Barney (1996) points out that some resources, when present, favor a particular type of generic strategic choice. Thus, the presence of a significant experience effect favors the strategy of domination by the costs while the reputation favors the differentiation. Fernandez and Le Roy (2010), for their part, assume that the RBV theory is a stimulus to the pursuit of an individual strategy and this because the isolation of the company allows it to create sustainable unique resources. On the other hand, if companies have a strong need for resources (complementary or similar), they are obliged to cooperate vertically and sometimes even to ally with a competitor and coopeete (Koenig, 1996; Bengtsson & Kock, 2000).

3.2.2 Strategic Capabilities

The pioneering work on resources uses the terms resources and capacities indistinctly to designate the same meaning. It will be necessary to wait for Amit and Schoemaker (1993) to propose a first considerable distinction between these two terms. According to these authors, the resources refer to the assets owned and controlled by the company whereas the capacities indicate the ability of the firm to exploit and combine these resources through the organizational routines aiming at accomplishing its path. These resources interact in a rather complex way, providing specific, tangible and intangible information processes that build capacities. The latter, when they are strategic, can have the effect of increasing the competitiveness of the company by promoting the creation of a sustainable competitive advantage, increasing production efficiency and improving deliveries (Day, 1994; Spanos & Lioukas, 2001; Desarbo et al., 2005).

Researchers highlight various types of strategic capabilities, as each firm develops a specific configuration of capabilities that is rooted in the realities of its competitive market, past commitments, and projected needs (Grant, 1991). Still, it is important to note that there are certain types of capabilities that can exist in any business, especially those that correspond to key value creation processes, such as strategic managerial, technology, marketing, market-link and information technology capabilities.

However, if it is true that the RBV approach brings a new understanding of the strategic process to the neoclassical approach, it continues to view competition as a struggle by referring to new barriers to entry (resources or capabilities). This suggests the complementarity of these two approaches in explaining profits and strategic choices.

3.3 Complementarity of the Porterian Approach and the Resources' Approach

Researchers unanimously agree that these two approaches have differences as well as similarities that justify their complementarity (Amit & Shomaker, 1993; Barney & Zajac, 1994). For example, Spanos and Lioukas (2001) argue that both of these approaches encourage higher-than-normal returns and therefore an attractive strategic position (Conner, 1991). Nevertheless, these authors argue that these two approaches differ on the nature of rent (monopolistic / Ricardian) and explanatory factors for strategic choices (external / internal).

To this end, researchers agree on their complementarity because value creation stems logically from the internal capacities of the strategy adopted and from the strategy to the competitive environment (Barney & Griffin, 1992) and Barney (1992) cited by (Spanos & Lioukas, 2001). On this same point, Barney and Zajac (1994) and Barney, Spender and Reve, (1994) assume that the examination of the skills needed to implement the strategy must necessarily join the analysis of the competitive environment of the firm and vice versa (Penrose, 1959; Amit & Schoemaker, 1993). This complementarity has already been recognized by the SWOT model integrating resources (strengths and weakness of the company) and the competitive environment (opportunities and threats from the environment) (Foss, 1996)

This complementarity calls for the combination of these two approaches in the explanation of the strategic choices and this because they complement each other in the explanation of the source of the competitive advantage and the performance and that they highlight the same phenomena, namely: sustainable competitive advantage and strategic choices (Spanos & Lioukas, 2001).

4. Development of the Model and Hypotheses

This work refers to a dual theoretical framework grouping the porterian approach and the RBV presented above and proposes a composite model explaining the choice of coopetition strategies (Figure 1). This conceptual model that we propose stipulates that the intensity of competition, orients differently the different strategic choices of coopetition (horizontal and vertical) and their nature (aggressive or cooperative), and that these strategic choices and their nature also depend on the possible company's provision of sufficient strategic capabilities.

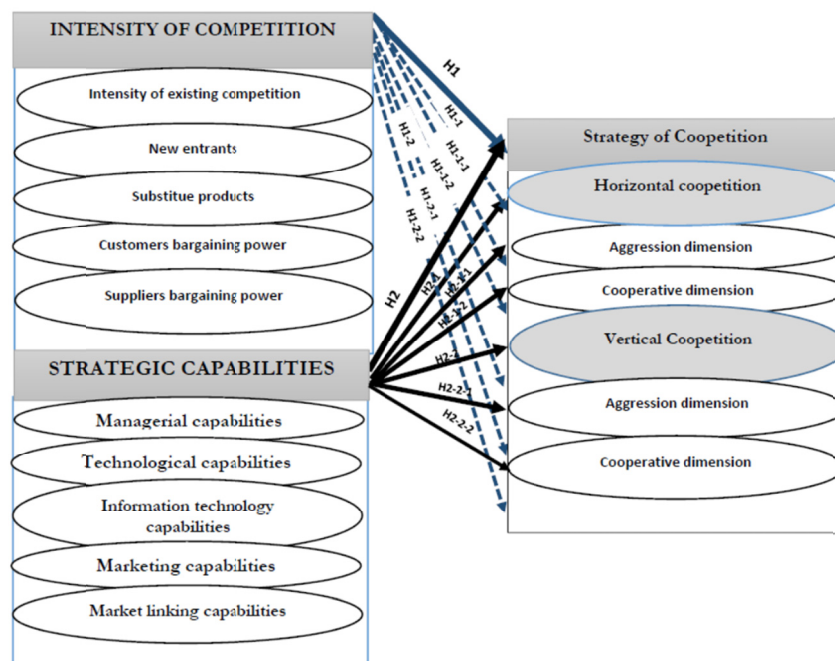


Figure 1. Conceptuel model

The objective is to determine the factors (competition 'intensity and strategic capabilities) that favor the use of

horizontal coopetition to the detriment of vertical coopetition and rather aggressive coopetition to the detriment of cooperative coopetition.

4.1 The Impact of the Competition Intensity on Coopetition Strategies

The assumptions of the competitive forces approach have been relatively tested not only in the field of competitive strategies but also in the field of cooperation and coopetition strategies. However, the review of the literature allows us to remember that the research conducted on this topic is still shy about the nature of coopetition (horizontal or vertical) favored in the context of a highly competitive environment. As such, we cite Shan's work (1990), which proved that the high intensity of competition favors the formation of alliances. Very recently, the empirical study of Chiambaretto and Fernandez (2016) shows that the high environmental uncertainty encourages companies to move much more towards coopetition strategies than towards pure cooperation strategies. By evoking two types of coopetition (horizontal and vertical), Hamouti et al. (2014) have just confirmed that to succeed in innovating in a highly competitive environment, companies must make greater use of both vertical and horizontal coopetition.

As for the aggressive or cooperative nature of the coopetition conducted, the researches are much more lacking. In this framework of ideas, Luo (2007) argues that the intensity of competition pushes to develop the competitive dimension of coopetition as well as the cooperative dimension. Indeed, in terms of the cooperative dimension, the response of coopetitors to competitive threats is to intensify collaboration to strengthen their bargaining power and to impose new barriers to entry (through predatory pricing, manipulation of technological standards, pressuring governments to use more stringent policies). These claims are justified by the example of Siemens who strengthened his collaboration with his rival Motorola when he realized that the competitive threats of competitors like Hitachi, 3Com, Cisco, Acer and Samsung have increased. Siemens and Motorola have jointly strengthened the technology standards and put pressure on the Chinese government not to ratify project developers in cities where they had already invested and operated.

With regard to the competitive aggressiveness dimension, Luo (2007) argues that the propensity for competitive aggression tends to increase with the intensification of competition, especially in the context of a mature industry where coopetitors tend to compete fully with each other in order to maximize the rent of their respective positions in the market. To assert this, the author illustrates the example of Sun Microsystems where competition between semi-conductor producers, including Toshiba, Unisys, Fujitsu, Philips and Matsushita, has increased dramatically when RISC technology has become obsolete after IBM (Whose PC unit was acquired by Lenovo in China 2005 for \$ 1.75 billion), Motorola and Apple jointly developed the PowerPC chip and Intel has redoubled its efforts to develop the Pentium chip. Similarly, when firms are targeting the same market, the same competitive strategy, the same element of competitive advantage or the similarity of products is growing, the propensity for competitive aggression is increasing. These claims are justified by the example of Germany Bertelsmann and France Vivendi Universal, two of the world's largest media groups that cooperate and compete, have increased their rivalry by striving to compete in each other's domestic markets (Largest market community). Vivendi finally turned to the marketing of sports teams and events in Europe, a zone long dominated by Bertelsmann (Increasing the similarity of the portfolio).

Following the above developments, we make the following central hypothesis:

Hypothesis 1: The competition' intensity favors coopetition strategies

From this hypothesis follow the following sub-hypotheses:

Hypothesis 1-1- the competition' intensity favors horizontal coopetition strategies

Hypothesis 1-1-1: The competition 'intensity favors the propensity for cooperation of horizontal coopetition

Hypothesis 1-1-2: The competition 'intensity favors the propensity for aggression of horizontal coopetition

Hypothesis 1-2- the competition' intensity favors vertical coopetition strategies

Hypothesis 1-2-1: The competition 'intensity favors the propensity for cooperation of vertical coopetition

Hypothesis 1-2-2: The competition 'intensity favors the propensity for aggression of vertical coopetition

4.2 The Impact of Strategic Capabilities on Coopetition Strategies

Since the founding works on coopetition (Bengtsson & Kock, 1999), the high need for excess resources seems to be one of the determining factors in pursuing a strategy of coopetition. However, these researches have not made a clear distinction between the primacy of horizontal coopetition over vertical coopetition, or the opposite depending on the level of resource requirement. Le Roy and Fernandez (2010), in an empirical study of the

European space industry, simply, show that companies are increasingly opting for coopetition when they lack internal resources to create a competitive advantage in isolation. In parallel, Miotti and Sachwald (2003) find in their empirical study that the strategic need for effort in research and development increases the tendency of companies to cooperate with a competitor. This cooperation with rivals aims to pool similar resources in order to cope with high R & D costs.

As for the aggressive or cooperative nature of coopetition, researches are also timid. Luo (2007) shows that the propensity for competitive aggression tends to increase when the interdependence of resources among coopetitors tends to decrease. However, when it is strong, it has the effect of favoring the intensity of the propensity to cooperate (Henderson & Mitchell, 1997). These claims are justified in the case of the German company Vodafone and the French company Vivendi Universal, which have long coopeete (compete and cooperate). However, with the dissolution of Vizzavi, (their joint venture on the Internet), their mutual competition has increased significantly in European mobile markets due to their low interdependence in resources.

Based on the above reflections, we can formulate the following hypotheses:

Hypothesis 2: Insufficient strategic capabilities favors the adoption of coopetition strategies

From this hypothesis, several sub-hypotheses can emerge:

Hypothesis 2-1: Insufficient strategic capabilities favors the adoption of horizontal coopetition strategies

Hypothesis 2-1-1- Insufficient strategic capabilities favors the propensity for cooperation of horizontal *coopetition*

Hypothesis 2-1-2- Insufficient strategic capabilities favors the propensity for aggression of horizontal coopetition

Hypothesis 2-2: Insufficient strategic capabilities favors the adoption of vertical coopetition strategies

Hypothesis 2-2-1- Insufficient strategic capabilities favors the propensity for cooperation of vertical coopetition

Hypothesis 2-2-2- Insufficient strategic capabilities favors the propensity for aggression of vertical coopetition

By comparing the effect of the two factors studied on the continuation of coopetition strategies, we propose the following hypotheses:

Hypothesis 3: Insufficient strategic capabilities has a more decisive effect than competitive intensity in adopting coopetition strategies

Hypothesis 3-1: Insufficient strategic capabilities has a more decisive effect than competitive intensity in adopting horizontal coopetition strategies

Hypothesis 3-2: Insufficient strategic capabilities has a more decisive effect than competitive intensity in adopting vertical coopetition strategies

5. Research Methodology

5.1 Measurement of Variables

With the exception of the "intensity of existing competition" dimension, which was measured by the scale proposed by Mia and Clarke (1999) in an adapted version of the Khandwalla scale (1972) but used in a Al-Rfou's own version (2012), the four other competitive forces (threat of new entrants, threat of substitute products, bargaining power of customers, bargaining power of suppliers) were measured by the scales of measurement proposed by Weerawardena (2006) based on the scales developed by Pecotich et al. (1999).

To measure the constructs of different strategic capabilities (managerial, technological, information technology, marketing and market linkage), this research refers to the scales proposed by Desarboo et al. (2005).

Regarding coopetition, Fernandez et al. (2010), argue that researchers in management sciences must incorporate multidimensionality as an additional constraint when it comes to measuring this phenomenon of coopetition. Nevertheless, although the measures used to date, incorporate the two dimensions of coopetition (competition and cooperation), they offer only an indirect measure (Fernandez et al., 2010) which revolves around the measurement of cooperation in the competition (network framework) or vice versa (Gnyawali, He, & Madhavan, 2006, Andreovski, Ferrier, & Bras, 2007). In order to fill this gap and take into account the bi-dimensionality of the coopetition variable, and while trying to make a direct measure of coopetition, we have tried to measure coopetition through a competitive dimension and a cooperation dimension. Thus, we measured the "propensity for cooperation" dimension through the scale proposed by Luo et al. (2007). As for the second dimension relating to competitive aggression, we used the Le Roy' scale (1996, 2001). This scale was similarly adapted to

the needs of our study by using it once for vertical coopetition and a second time for horizontal coopetition.

For all the items on the chosen scales of measurement, respondents are asked to rate, on a seven-point Likert scale ranging from 1 "very low" to 7 "very high" their attitudes towards the different variables of the study.

5.2 Sampling, Administration and Data Collection

As part of this work, we opted for the reasoned choice sampling method, since it was judged that the sample with the characteristics listed below can enable us to achieve the objectives of the research. Indeed, the mother population assembles companies of the Tunisian manufacturing industry (the sector of textile and clothing, the sector electrical, electronics and household appliances, the chemical sector and, the sector agro-alimentary) of small, medium or large sizes, all regime of activity combined (totally exporting and other than totally exporting). With regard to the questionnaire, the validity of content (consensus validity and facial validity) was verified first through its submission to the appreciation of peers and experts, who made us benefit from certain recommendations concerning certain items. Subsequently, this questionnaire was tested through a pre-test with 12 companies, which allowed us to clarify and rephrase some misunderstood or inadequate questions. Then, we administered it, in its final version, to the general managers (CEOs) of the companies in our sample while opting for the face-to-face mode which has the advantage of favoring a high control of the sample and a more reliable information. Of the 400 questionnaires distributed, only 236 copies were returned with a return rate of 59% of which only 203 were exploitable and fully populated (no missing data) with an 85.5% actionable response rate.

6. Results

The results of the empirical study (Table 3) carried out cannot be used before making sure of the reliability and the dimensionality of the different scales of measurement used by means of a first purification through the ACP and the calculation of the Alpha of Cronbach, then a second purification through the AFC. Having verified all these conditions of scientific rigor, the data were analyzed through the method of structural equations which showed a good quality of fit of the global model. At this stage, we were able to empirically validate the research hypotheses and announce the results obtained.

Thus, the empirical study carried out shows that the intensity of competition has a positive and significant effect on both horizontal and vertical coopetition strategies. This allows us to confirm our hypotheses H1, H1-1 and H1-2.

As for the second explanatory variable of our model, the results of the empirical investigation initiated show the existence of a negative and significant effect of the strategic capabilities on the different strategies of vertical and horizontal coopetition, which exiles us to confirm Hypothesis H2, H2-1 and H2-2.

Regarding the effect of competitive intensity on the propensity for aggression and cooperation, we found that in the case of horizontal coopetition, the propensity for competitive aggression increases while the propensity for cooperation decreases with the competition intensity. This allows us to confirm H1-1-1 but to overturn H1-1-2. However, in the context of vertical coopetition, the intensity of competition seems to have a negative effect on both the cooperative and the aggressive dimension, thus allowing us to confirm H1-2-1 and H1-2-2.

Concerning the effect of strategic capabilities on the propensity for competitive aggression as well as cooperativity, it turns out to be negative and significant for both horizontal and vertical coopetition, thus confirming the hypotheses H 2-1-1, H2 -1-2, H2-2-1 and H2-2-2.

The comparison of the coefficients in absolute value of the two factors allows us to confirm that the "strategic capabilities" factor holds the strongest weight that the competitive intensity in the explanation of the two types of coopetition and this despite its negative sign in both cases. Thus allowing us to confirm H3-1, H3-2 and consequently H3.

7. Discussions

This empirical investigation has taught us that the intensity of competition determines the strategies of coopetition. More specifically, competitive intensity seems to have a negative impact on vertical coopetition strategies while having a positive impact on horizontal coopetition strategies. Given that horizontal coopetition strategies are mainly developed in R & D activities, the development of new products, the improvement of the existing technology within our sample, we can therefore affirm like Hamouti et al. (2014) on a sample of the video game industry that compared to the competitive intensity, it is the horizontal coopetition which is privileged compared to the vertical coopetition and which proves the major source of the radical innovation. This type of coopetition provides access to the partner resources most needed to compete in the market (Hamouti et al., 2014). Indeed, a context marked by a strong competitive intensity is likely to require radical innovation that

requires resources that are found only in the strongest competitor (Chiambaretto & Fernandez, 2016). As for the vertical coopetition strategy, it is mainly focused on the development of new products, improvement of existing technology, sales and market segmentation and does not allow access to the resources needed for production, which explains the low use of this strategy when competition intensifies. In fact, when the intensity of competition is moderate, the need to innovate becomes more modest (incremental innovation), hence the use of vertical coopetitions, where cooperation is carried out on the products of suppliers (which are at the same time competitors) or on the activities or distribution channels of customers (who are concurrently competitors) but do not allow an innovation of the company's products (Hamouti et al., 2014). These results are in line with those of the empirical study of Eisenhardt and Schoonhoven (1996), who, by testing the relationship between the competition 'intensity and the use of alliance strategies with a competitor, find that firms make recourse increasingly to alliance strategies when the number of competitors is high in an industry. Along the same lines, we also join Shan (1990) who proves, on a sample of entrepreneurial biotechnology firms, that the high intensity of competition favors the formation of alliances.

To further these investigations and digging deeper into the analysis of coopetition, focusing on the cooperative and aggressive intensity of this strategy, the results show that in the case of horizontal coopetition, the propensity for aggression while the propensity for cooperation decreases with the intensification of competition. This coopetition situation can be described as conflictual, as Luo (2007) suggests. These results are in part consistent with Luo's (2007) claims who stipulate that the competition 'intensity has the effect of reinforcing the competitive dimension of coopetition. However, our results conflict with Luo (2007) regarding the cooperative dimension of horizontal coopetition. Similarly, for vertical coopetition, the intensity of competition seems to have a negative effect on both the cooperative dimension and the aggressive one, annoying thereby Luo (2007). This coopetition situation is described as a situation of isolation according to the terms of Luo (2007).

As for the competitive aggression dimension, the results of this paper are in line with Luo's (2007) comments for horizontal coopetition, but thwart them for vertical coopetition. One possible explanation is that the sectors subject to horizontal coopetition are in the maturing phase, which leads to more competitive aggression (Baum & Korn, 1999) or that coopetitors adopt the same competitive strategy, target the same market, or have a strong similarity of products (Luo, 2007). However, as far as the cooperative dimension is concerned, our results contradict Luo (2007) in terms of both horizontal coopetition and vertical coopetition. Indeed, Luo (2007) argues that the cooperative dimension of coopetition increases with competitive intensity. According to this author, coopetitors' response to competitive threats is to intensify collaboration in order to strengthen their bargaining power, impose new barriers to entry (through predatory pricing, manipulation of technological standards, put pressure on governments to they use harsher policies).

In terms of the effect of the firm's strategic capabilities on coopetition strategies, it manifests itself in a variety of relationships. Indeed, our empirical investigation has allowed us to agree that the lack of strategic capabilities favors the vertical and horizontal coopetition strategy. Nevertheless, it is important to note that in our sample, companies have an interest in opting for vertical coopetition slightly more than horizontal coopetition when their resource requirements are higher. This result cannot be explained independently of the factor "competitive intensity". To this end, we assume that the competitive environment of these companies is not so intense, which implies that the resources required for innovation and performance are only upstream or downstream of the production process and that the chosen vertical coopetitors are rich in these resources, which prove to be sufficient in this context. Thus, a cooperation on the products of the coopetitor suppliers or on the distribution and communication channels of the coopetitor customers proves to be sufficient in view of the need for resources felt and has the advantage of better protecting the key resources of the coopetitors.

This result diverges from that of Hamouti et al. (2014), which prove that companies prefer the adoption of horizontal coopetition because it is the most efficient for coopetitors since it makes it possible to boost the sales of the two coopetitors and to increase their respective market shares. However, in the context of vertical coopetition, the customer or the supplier (who is at the same time a competitor) often engages in exclusive contracts with the cooperator which limits his potential gains.

In order to further refine our investigations, we considered it useful to deepen the analysis of coopetition taking into account its two-dimensional nature. Our empirical results allow us to conclude that the insufficiency of the strategic capacities favors the propensity for cooperation and the competitive aggressiveness towards the coopetitors in the two cases of coopetition (horizontal and vertical). Therefore, we find that the lack of resources is a factor favoring the horizontal and vertical coopetition of "adaptation" type as proposed by Luo (2007), where the aggressive and cooperative dimension are the strongest possible. This is partly consistent with the statements of Bengtsson and Kock (1999, 2000) and Luo (2007) who argue that the propensity for cooperation increases

with the increased need for resources. However, we oppose Luo's (2007) comments on the propensity for aggression. Indeed, this author argues that the propensity for competitive aggression tends to increase when the interdependence of resources among cooptitors tends to decrease. However, when this interdependence is strong, it has the effect of favoring the intensity of the propensity to cooperate (Henderson & Mitchell, 1997). As such, this author proves that because of the low interdependence in resources of the company Vodafone and the company Vivendi Universal, which have long cooperated, their mutual competition has significantly increased in the pan-European mobile markets by the collapse of their joint venture.

The comparison of the absolute value coefficients of the two types of factors allows us to affirm that the "strategic capabilities" factor holds a strongest weight than that the competitive intensity in the explanation of the two types of cooptition and this despite its negative sign in both cases. However, vertical cooptition depends more heavily on both strategic capabilities and competitive intensity than the horizontal cooptition.

The primacy of the "capability" factor in explaining cooptition strategies is thus fully in line with the assumptions of the resource approach which predicts that it is the lack of strategic resources that drives companies to opt for cooptition since the resources sought are most often found among the competitor (Chiambaretto & Fernandez, 2016).

As for the different dimensions of the two types of cooptition, this study shows the primacy of the "capability" factor in the explanation of the aggressive and cooperative intensity for both horizontal and vertical cooptition. Indeed, the different coefficients relating to capabilities are higher in absolute value than those of the competitive intensity.

Finally, an attempt to compare the conditions of recourse to horizontal cooptition in the detriment of vertical cooptition or vice versa, and subject to simultaneous consideration of the two factors proposed in this research (intensity of competition and strategic capabilities), allows classification of recourse to these two strategies as shown in the matrix below (Table 2). The latter may constitute a very useful guide for Tunisian managers who can illuminate their path in terms of cooptition strategies.

Table 2. Matrix of strategic cooptition choices

Competition intensity Strategic Capabilities		Low	High
		Low	High
Low		Vertical cooptition (<i>isolement</i>)	Horizontal cooptition (<i>conflictual</i>)
		Vertical cooptition (<i>adaptation</i>)	
		Horizontal cooptition(<i>adaptation</i>)	

8. Managerial Implications

This research leads to attractive results that can be diagnostic and assessment tools for managers who can guide them in their strategic choices of cooptition in various situations of competitive intensity and strategic capabilities.

The study also highlights the crucial role that the lack of strategic capabilities can play in the orientation towards cooptition strategies. An important implication of this relationship is that cooptition strategies seem to offer a successful alternative for indigent businesses of these abilities. The latter are recommended to resort first to the vertical cooptition strategy and then to the horizontal cooptition strategy.

These results also send a message to companies in the industry, whose strategic choices depend on the strategic capabilities of their competitors, and who must distinguish between the real threats of competing firms versus companies that pass fictitious threats without being able to compete or have the resources to overcome the threat competition. Similarly, one must be cautious about certain companies that do not suffer from a lack of resources and that can propose to coopeete with the sole intention of accessing the competitor's key competencies. By the same token, public decision-makers can learn from this research, which, by ensuring that competition in Tunisian manufacturing industries and consumer welfare are well managed, must control the excessive use of cooptition strategies intended to eliminate competitors and monopolize the market.

9. Conclusions

This research is part of business strategies new approaches, including explanatory factors for the cooptition

strategy. This study allowed us to draw a number of conclusions. First, the present study contributes to the enrichment of the debate on the determining factors of the different coopetition strategies, which has long focused on one of these two types of factors without bringing them together. Our study has the merit of showing that these two factors have simultaneously a considerable weight in the determination of the strategic choices of coopetition. Two strategic coopetition situations (horizontal and vertical) have been identified.

Secondly, this study has shown that coopetition is a two-dimensional phenomenon that cannot be reduced to a single reductive dimension (Fernandez et al., 2010). Indeed, we took the initiative to develop a two-dimensional and direct measure of dyadic coopetition across a scale that consists of two dimensions; a "cooperation" dimension and a "competitive aggressiveness" dimension, reflecting more deeply the reality and the specificity of this strategy.

However like all research work, ours does not lack limits. A first limit refers to the choice of the Tunisian manufacturing industry to test our conceptual model which remains strongly linked to the specificities of research (intense competition) and which is far from allowing us to generalize our results to other sectors or to other developing countries. This calls for a future inter-industry comparative analysis or with other developing countries that can decide on the possibility of extending or circumscribing the scope of our results.

In addition, the present problem can be taken up by integrating other explanatory factors of strategic choices of coopetition, such as a wider range of resources and strategic capabilities, the life cycle of products, the size of the firm, etc. (Roy et al., 2010; Gynawali & Parck, 2009).

Finally, another limitation refers to the static nature of the competitive forces approach adopted. Indeed, behavioral factors, such as the characteristics of the company's actions and the competitors' reactions, can be of a considerable explanatory contribution to the strategic choices of coopetition (Bensebaa, 2003; Le Roy, 2004). Future research could incorporate such factors.

References

- Nahar, Al-R. A. (2012). Competition and Organizational Performance: Empirical Evidence from Jordanian Firms. *Business Management, Tafilah Technical University, Tafilah 66110, Jordan. J Economics*, 3(1), 13-17. <https://doi.org/10.1080/09765239.2012.11884947>
- Amit, R., & Schoemaker, P. J. (1993). Strategic assets and organizational rent. *Strategic Management Journal*, 14, 33-46. <https://doi.org/10.1002/smj.4250140105>
- Andreovski, G., Ferrier, W. J., & Bras, D. (2007). Social Capital and competitive behaviour: A study of interfirm networks and rivalry among auto makers. *Academy of Management proceedings*. <https://doi.org/10.5465/AMBPP.2007.26530452>
- Barnard, C. (1938). *The function of executives*. Cambridge, Harvard University Press. <https://doi.org/10.5465/amle.2017.0420>
- Barney J. B., & Zajac, E. (1994). Competitive organizational behavior: toward an organizationally-based theory of competitive advantage. *Strategic Management Journal*, 15, 5-9. Winter Special Issue. <https://doi.org/10.1002/smj.4250150902>
- Barney, J. B., Spender, J. C., & Reve, T. (1994). Does Management Matter?: On Competencies and Competitive Advantage. Lund University Press. *de Crafoord lectures*, 6, 89.
- Barney, J. B. (1996). The resource-based theory of the firm. *Organization Science*, 7(5), 469-469. <https://doi.org/10.1287/orsc.75.469>
- Barney, J. B. (1991). Firm Resources and Sustained Competitive Advantage. *Journal of Management*, 17(1), 99-120. <https://doi.org/10.1177/014920639101700108>
- Bengtsson, M., & Kock, S. (2000). Coopetition in Business Networks-To Cooperate and Compete Simultaneously. *Industrial Marketing Management*, 29, 411-426. [https://doi.org/10.1016/S0019-8501\(99\)00067-X](https://doi.org/10.1016/S0019-8501(99)00067-X)
- Bengtsson, M., & Kock, S. (1999). Cooperation and Competition in Relationships between Competitors in Business Networks. *Journal of Business & Industrial Marketing*, 14(3), 178-193. <https://doi.org/10.1108/08858629910272184>
- Bensebaa, F. (2003). la dynamique concurrentielle et ses déterminants: défis analytiques et méthodologiques. *Finance-Contrôle-Stratégie*, 6(1). Retrieved from <http://crego.u-bourgogne.fr/images/stories/rev/061037.pdf>

- Brandenburger, A. M., & Nalebuff, B. J. (1996). *Co-Opetition: A revolution mindset that combines competition and cooperation: the game theory strategy that's changing the game of business*. Currency Doubleday, New York.
- Chandler, A. D. (1962). *Strategy and Structure: Chapters in the history of industrial enterprise. Industrial management-United states, corporations*. Cambridge: M.I.T. Press. Retrieved from <http://uf.catalog.fcla.edu/uf.jsp?>
- Chiambaretto, P., & Fernandez, A. (2016). The evolution of coopetitive and collaborative alliances in an alliance portfolio: The Air France case. *Industrial Marketing Management*, 57, 75-85 <https://doi.org/10.1016/j.indmarman.2016.05.005>
- Chien, T.-H., & Peng, T.-J. (2005). Competition and Cooperation Intensity in a Network: A Case of Study in Taiwan Simulator Industry. *Journal of American Academy of Business*, 7(2), 150-156.
- Conner, K. R. (1991). A historical comparison of resource-based theory and five schools of thought within industrial organization economics: Do we have a new theory of the firm? *Journal of Management*, 17(1), 121-154. <https://doi.org/10.1177/014920639101700109>
- Contractor, F. J., & Lorange, P. (1988). Why should firms cooperate? The strategy and economic basis for cooperative ventures. In F. J. Contractor, & P. Lorange (Eds.), *Cooperative Strategies in International Business* (pp. 3-30). Lexington Books, Lexington, MA.
- Cygler, J., Sroka, W., Solesvik, M., & Debkowska, K. (2018). Benefits and Drawbacks of Coopetition: The Roles of Scope and Durability in Coopetitive Relationships. *Sustainability*, 10, 2688. <https://doi.org/10.3390/su10082688>
- Czakon, W., & Rogalski, M. (2014). Coopetition revisited-a behavioural approach. *International Journal of Business Environment*, 6(1), 28-46. <https://doi.org/10.1504/IJBE.2014.058022>
- Dagnino, G. B., & Padula, G. (2002). *Coopetition Strategy: A new kind of interfirm dynamics for value creation*. In II Annual Conference of EURAM. Stockholm: May 9-11. <https://doi.org/10.1.1.194.5380&rep=rep1&type=pdf>
- Dagnino, Giovanni, B., Le Roy, F., & Yamin, S. (2007). La Dynamique des stratégies de Coopétition. *Revue Française de Gestion*, 33(176), 87-98. <https://doi.org/10.3166/rfg.176.87-98>
- Day, G. S. (1994). The Capabilities of Market-Driven Organizations Reviewed work(s). *Journal of Marketing*, 58(4), 37-52. <https://doi.org/10.1177/002224299405800404>
- Desarbo, W. S., Di Benedetto, C. A., Song, M., & Sinha, I. (2005). Revisiting the Miles and Snow strategic framework: uncovering interrelationships between strategic types, capabilities, environmental uncertainty, and firm performance. *Strategic Management Journal*, 26, 47-74. <https://doi.org/10.1002/smj.431>
- Dierickx, I., & Cool, K. (1989). Asset stock accumulation and sustainability of competitive advantage. *Management Science*, 35(12), 1504-1511. <https://doi.org/10.1287/mnsc.35.12.1504>
- Doz, Y. (1996). Managing core competency for corporate renewal: Towards a managerial theory of core competencies. *Organization and Strategy in the Evolution of the Enterprise*, 155-178.
- Eisenhardt, K. M., & Schoonhoven, C. B. (1996). Resources-based View of Strategic alliance formation: strategic and social effects in entrepreneurial firms. *Organization Science*, 7(2). <https://doi.org/10.1287/orsc.7.2.136>
- Fernandez, A.-S., & Le Roy, F. (2010). Pourquoi Coopérer avec un Concurrent? Une approche par la RBV. Lavoisier. *Revue française de gestion*, 5(204), 155-169. <https://doi.org/10.3166/RFG.204.155-169>
- Fernandez, A.-S., Marques, P., Le Roy, F., & Robert, F. (2010). Mesurer la coopétition: Mission impossible? *Revue Sciences de Gestion*, 73.
- Ferrier, W. J. (2001). Navigating the Competitive Landscape: The Drivers and Consequences of Competitive Aggressiveness. *Academy of Management Journal*, 44(4), 858-877. <https://doi.org/10.5465/3069419>
- Foss, N. (1996). Research in Strategy, Economics, and Michael Porter. *Journal of Management Studies*, 33, 1-24. <https://doi.org/10.1111/j.1467-6486.1996.tb00796.x>
- Foss, N. (1997). Resources and strategy: problems, open issues, and ways ahead. In N. Foss (Ed.), *Resources, Firms and Strategies* (pp. 345-365). Oxford University Press: New York.
- Galbreath, J., & Galvin, P. (2008). Firm factors, industry structure and performance variation: New empirical

- evidence to a classic debate. *Journal of Business Research*, 61, 109-117. <https://doi.org/10.1016/j.jbusres.2007.06.009>
- Garraffo, F. (2002). *Types of coopetition to manage emerging technologies*. In 2nd annual conference, Innovative Research in Management, Stockholm, Sweden.
- Garrette, B., & Dussauge, P. (1995). *Les Stratégies d'Alliance*. Editions d'Organisation, Paris.
- Gnyawali, D. R., & Park, B.-J. R. (2009). Co-opetition and Technological Innovation in Small and Medium-Sized Enterprises: A Multilevel Conceptual Model. *Journal of Small Business Management*, 47(3), 308-330. <https://doi.org/10.1111/j.1540-627X.2009.00273.x>
- Gnyawali, D. R., He, J., & Madhavan, R. (2006). Impact of Co-opetition on Firm Competitive Behavior: An Empirical Examination. *Journal of Management*, 32(4), 507-530. <https://doi.org/10.1177/0149206305284550>
- Gnyawali, D. R., & Park, B. J. (2011). Coopetition between giants: Collaboration with competitors for technological innovation. *Research Policy*, 40(5), 650-663. <https://doi.org/10.1016/j.respol.2011.01.009>
- Gnyawali, D. R., He, J., & Madhavan, R. (2008). Co-opetition. Promises and challenges. In C. Wankel (Ed.), *21st Century Management: A Reference Handbook* (pp. 386-398). London: Sage Publications.
- Grant, R. M. (1991). The Resource-Based Theory of Competitive Advantage Implications for Strategy Formulation. *California Management Review*, 114-135. <https://doi.org/10.2307/4116664>
- Hamel, G., Doz, Y., & Prahalad, C. K. (1989). Collaborate with your competitor and Win. *Harvard Business Review*, (67), January-February, 133-139.
- Hamouti, R., Robert, F., & Le Roy, F. (2014). Stratégie individuelle, stratégie de coopération verticale ou stratégie de coopération. Quelle est la meilleure stratégie pour l'innovation produit? *Innovations*, 1(43), 135-161. <https://doi.org/10.3917/inno.043.0135>
- Henderson, R., & Mitchell, W. (1997). The Interactions of Organizational and Competitive Influences on Strategy and Performance. *Strategic Management Journal*, 18(Summer Special Issue), 5-14. [https://doi.org/10.1002/\(SICI\)1097-0266\(199707\)18:1<5::AID-SMJ930>3.0.CO;2-I](https://doi.org/10.1002/(SICI)1097-0266(199707)18:1<5::AID-SMJ930>3.0.CO;2-I)
- Hillman, A. J., Withers, M. C., & Collins, R., & Brian, J. (2009). Resource Dependence Theory. *A Review Journal of Management*, 35, 1404. <https://doi.org/10.1177/0149206309343469>
- Khandwalla, P. N. (1972). The Effect of Different Types of Competition on the Use of Management Controls. *Journal of Accounting Research*, 10(2), 275-285. <https://doi.org/10.2307/2490009>
- Koenig, G., (1996). Management stratégique: paradoxes, interactions et apprentissages: construction et gestion des activités. Management d'exigences contradictoires. Paris, Nathan. Retrieved from <http://hdl.handle.net/123456789/101919>
- Lado, A. A., Boyd, N. G., Hanlon, & Susan, G. (1997). Competition, Cooperation and the Search for Economic Rents: A Syncretic Model. *Academy of Management Review*, 22(1), 110-141. <https://doi.org/10.5465/amr.1997.9707180261>
- Lamberg, J.-A., Ojala, N. J., & Sajasalo, P. (2007). *The evolution of competitive strategies in global forest industries*. Dordrecht: Springer.
- Lavie, D. (2006). The competitive advantage of interconnected firms: An extension of the resource-based view. *Academy of Management Review*, 31, 638-658. <https://doi.org/10.5465/amr.2006.21318922>
- Le Roy, F., Robert, M., & Lasch, F. (2013). Coopérer avec ses amis ou ses ennemis quelle stratégie pour l'innovation produit? *Revue Française de Gestion*, 3(232), 81-100.
- Le Roy, F. (1996). L'agressivité concurrentielle comme objet de recherche. *Treizièmes Journées Nationales des IAE*, 2, 395-408. IAE Toulouse, Toulouse.
- Le Roy, F. (2001). Agressivité concurrentielle, taille d'entreprise et performance. *Revue Internationale des PME*, 14(2).
- Le Roy, F. (2004). La concurrence: entre affrontement et connivence. *Revue française de gestion*, (148).
- Le Roy, F., Robert, M., & Lasch, F. (2012). *Coopérer avec ses amis ou avec ses ennemis: Quelle stratégie pour la performance d'innovation produit en PME? 11ème Congrès CIFEPME*.
- Le Roy, F., & Yami, S. (2007). Les stratégies de coopération. *Revue Française de Gestion*, 33(176).

- Le Roy, F., Yami, S., & Dagnino, G. (2010). La coopétition: Une stratégie pour le vingt-et-unième siècle. In S. Yami, & F. Le Roy (Eds.), *Les stratégies de coopétition: Rivaliser et coopérer simultanément* (pp. 17-28). DeBoeck, Collection Méthodes et Recherches, Bruxelles.
- Le Roy, F., & Sanou, F. H. (2014). Does coepetition strategy improve market performance? An empirical study in mobile phone industry. *Journal of Economics & Management*, 17, 63. <https://EconPapers.repec.org/RePEc:hal:journl:hal-02050858>
- Luo, X., Rindfleisch, A., & Tse, D. K. (2007). Working with Rivals: The Impact of Competitor Alliances on Financial Performance. *Journal of Marketing Research*, 44(1), 73-83. <https://doi.org/10.1509/jmkr.44.1.073>
- Luo, Y. (2007). A coepetition perspective of global competition. *Journal of World Business*, 42, 129-144. <https://doi.org/10.1016/j.jwb.2006.08.007>
- Luo, Y. (2004). A Coepetition Perspective of MNC-host Government Relations. *Journal of International Management*, 10, 431-451. <https://doi.org/10.1016/j.intman.2004.08.004>
- Mia, L., & Clarke, B. (1999). Market competition, management accounting systems and business unit performance. *Management Accounting Research*, 10, 137-158. <https://doi.org/10.1006/mare.1998.0097>
- Miotti, L., & Sachwald, F. (2003). Co-operative R&D: Why and with whom? An integrated framework of analysis. *Research Policy*, 32(8), 1481-1499. [https://doi.org/10.1016/S0048-7333\(02\)00159-2](https://doi.org/10.1016/S0048-7333(02)00159-2)
- Nalebuff, B., & Brandenburger, A. (1996). *La Coopétition, une révolution dans la manière de jouer concurrence et coopération*. Paris, Village Mondial.
- Pecotich, A., Hattie, J., & Low, L. P. (1999). Development of Industruct: A Scale for the Measurement of Perceptions of Industry Structure. *Marketing Letters*, 10(4), 409-422. Kluwer Academic Publishers, Manufactured in the Netherlands. Retrieved from <https://www.jstor.org/stable/40216551>
- Pellegrin-Boucher, E., & Le Roy, F. (2009). Dynamique des stratégies de coopétition dans le secteur des TIC: le cas des ERP. *Revue Finance-Contrôle-Stratégie*, 12(3), 97130. Retrieved from <http://crego.u-bourgogne.fr/images/stories/rev/123130.pdf>
- Penrose, E. T. (1959). *The Theory of the Growth of the Firm*. Oxford University Press: Oxford. <https://doi.org/10.1093/0198289774.001.0001>
- Porter, M. E. (1980). *Competitive Strategy: Techniques for Analyzing Industries and Competitors*. New York: Free Press.
- Rumelt, R. (1984). Theory strategy and entrepreneurship. In R. Lamb (Ed.), *Competitive strategic management*. Prentice Hall. https://doi.org/10.1007/0-387-23622-8_2
- Sanou, F. H. (2012). *Les déterminants de la coopétition dans l'industrie de la téléphonie mobile*. AIMS.
- Sanou, F. H., & Le Roy, F. (2012). *Agressivité, Coopération Ou Coopétition: Quelle Stratégie Performante Dans Les Industries De Réseaux?* Working Paper. Retrieved from <https://hal.umontpellier.fr/hal-02048035>
- Seznich, Ph. (1957). Intuitionism "Old" and "New". *Administrative Science Quarterly*, 41(2), 270-277. <https://doi.org/10.2307/2393719>
- Shan, W. (1990). An empirical analysis of organizational strategies by entrepreneurial High-technology Firms. *Strategic Management Journal*, 11, 129-139. <https://doi.org/10.1002/smj.4250110205>
- Smith, K. G., Grimm, C. M., & Gannon, M. J. (1992). *Dynamics of competitive strategy*. Sage Publications.
- Spanos, Y. E., & Lioukas, S. (2001). An Examination into The Causal Logic of Rent Generation: Contrasting Porter's Competitive Strategy Framework and The Resource-Based Perspective. *Strategic Management Journal*, 22, 907-934. <https://doi.org/10.1002/smj.174>
- Weerawardena, J., Aron, O., & Julian, C. (2006). Does industry matter? Examining the role of industry structure and organizational learning in innovation and brand performance. *Journal of Business Research*, 59, 37-45. <https://doi.org/10.1016/j.jbusres.2005.02.004>
- Wernerfelt, B. (1984). A Resource View of the Firm. *Strategic Management Journal*, 5(2), 171-180. <https://doi.org/10.1002/smj.4250050207>
- Zineldin, M. (2004). Co-opetition: The organization of the future. *Mark. Intell. Plan*, 22, 780-789. <https://doi.org/10.1108/02634500410568600>

Appendix

Table 3. Tests' Results of research hypotheses

Variables' Relationship	Estimated beta		CR
	NS	S	
SCOPTH <--IC	,013	,013***	,179
SCOPTHC<--IC	-,124	-,157*	-2,194
CPTHAG--IC	,181	,269***	3,600
SCPTV--IC	-,503	-,503***	-8,261
SCPTVC <--IC	-,568	-,531***	-7,765
CPTVAG--IC	-,535	-,550***	-6,565
SCOPTH<--CS	-,607	-,607***	-10,856
SCOPTHC<--CS	-,531	-,408***	-6,377
CPTHAG<--CS	-,335	-,626***	-6,284
SCPTV--CS	-,618	-,618***	-11,172
SCPTVC<--CS	-,668	-,584***	-8,950
CPTVAG<--CS	-,954	-,768***	-10,718

***, **, *: significant at 1%, 5%,10%

IC: Competitive Intensity, CS: Strategic Capabilities, SCOPTH: Horizontal Coopetition, SCPTV: Vertical Coopetition, SCOPTHC: propensity to cooperation in horizontal coopetition, CPTHAG: propensity to aggression in horizontal coopetition, SCOPTVC: propensity to cooperation in vertical coopetition, CPTVAG: propensity to aggression in vertical coopetition

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A Critical Review on Some Key Terms Taken from *The Virtual Community* by Howard Rheingold

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Abstract

This paper aims to review and re-examine some of the key terms taken from Howard Rheingold's book *The Virtual Community*, which was published in 1998. Even though it has been 2 decades since this book was published, Rheingold's ideas are affective and applicable to the current research on virtual community. As the first man who invents the term 'virtual community', Rheingold provides a number of significant contribution and offers more room for the further studies on virtual community, as well as virtual world. Rheingold's foresight on the understanding of virtual community has great impact on the current studies of the virtual world.

Keywords: virtual community, virtual world, WELL, CMC, panopticon

1. Introduction

Even though there are a great deal of changes and improvement on the topics that relate to the field 'virtual' comparing with Rheingold's time, it is also noticeable that Rheingold's book does not provide intensive explanation on certain topics and theoretical terms, what the book calls us, as communication scholars, or educators for action is to discover areas that have not been researched or, in addition, to compare similarities and differences function and impact that virtual community works on the contemporary participants with those in twenty years ago. Virtual community is a wide term under the umbrella of Communication studies. It would be a goal that seems unattainable if one would like to fully analyze it. What is suggested here is to fill the gaps of emptiness and seek for new areas or destinations for further research.

There are total ten chapters in the book. Rheingold first introduces the term 'WELL' on the first chapter. Chapter two analyzes 'Daily Life in Cyberspace: How the Computerized Counterculture Built a New Kind of Place'. In chapter three, Rheingold takes us back to the Accidental History of the Net. Following in chapter four he begins to discuss 'Grassroots Groupminds'. Chapter five is an interesting chapter which is emphasized on 'Multi-user Dungeons and Alternative Identities'. In chapter six, the topic of 'Real-time Tribes' is discussed. Rheingold provides the relationship between the Net and specific region by using Japan as an example. This content is in chapter seven: Japan and the Net. In chapter eight, Rheingold turns the readers' attention to the introduction of 'Telematique and Messageries Rose: A tale of Two Virtual Communities'. Rheingold also analyzes the 'Electronic Frontiers and Online Activists' in chapter nine. Last but not least, as the last chapter of the book, Rheingold's interpretation on 'Disinformocracy' is introduced in chapter ten.

Everyone has only 24 hours a day, and during that period our time is always taken up with and 'spent' moving from one space to another. Time and space are the most crucial elements that limit the capacity of human life. The invention of the airplane, for instance, shortens the time of transportation and reduces the distance between places. However, there is still a little to do. We can take a day trip from Hong Kong to Singapore, but it is impossible to present a research paper at an international conference that is held in San Francisco in the same day. We can attend church Sunday service in the morning. Have lunch with friends in a nice open-air restaurant; take a nap on a super comfortable king-size bed and play basketball straight afterward; then enjoy a romantic candlelight dinner with boy/girl friend. Unfortunately, you might think of your best friend who is getting married in Japan while listening to the speech of the pastor, you wish to see her happy face and congratulate her. We cannot be in two places at once. The real world that we live in everyday has so many restrictions that limit what we wish to be. However for Howard Rheingold, virtuality provides an alternative.

1.1 The WELL

As for Rheingold, the invention of virtual community, virtual space, as well as virtual world, and the rise of virtual communities, constitute the critical development for humanity. It influences the way how people work, how people behave both in public and private. Further more, it changes the lifestyle and almost every aspect of human life. He stresses that 'I have good friends now all over the world who I have never would have met without the mediation of the Net' (1998). It seems to him that the intention of communication technology, such as WELL (Whole Earth 'Electronic Link' (1998), has changed the way how people make friends from the traditional way, which requested the meeting in physical world at least. Traditionally, people could make friend through exchanging written letters, it was one way that people could build friendship without a physical meeting. However, geographic distance could make letters always been delivered after the problem was solved. It is no deny that exchanging letters could be an alternative way for making friends, but it seems quite hard for a further development of the friendship. For example, if someone was at a moment of difficult time about his job, he decided to write his feeling down on a letter and send it to his friend for advice. After he received the feedback from his friend that he was asking for advice, he may either have found a new job, or he might not feel the same as how he felt the moment when he wrote the letter. Time consuming is one of the most critical restrictions for almost every type of relationship. With the invention of WELL, time consuming is no longer a problem. Within only a minute, an email could be sent to the receiver.

1.2 The Meaning of 'Real'

Rheingold's appreciation on meeting good friends via the Net sounds interesting. However, it may be questionable that whether or not we should consider the friendship we build through the Net a real friendship? This could lead to some further questions about the experience or relationship that we gain from the Net is real too. For example, does the virtual world an extension of the offline world? What make(s) a virtual world popular? In what ways? Rheingold, who invented the term 'virtual community', addresses these questions and other issues in this book. The term 'real' exists like a twin brother of the 'virtual'. In Rheingold's opinion, "the phrase 'in real life' pops up so often in virtual communities that regulars abbreviate to IRL" (1998). However, Rheingold's description about the 'real' is too general. It seems a common understanding that the virtual is an opposite term of the real. In this sense, we may question that whether or not activities taken place in the virtual world, for example, sending and receiving email, and the way how the Internet users access to the information on e-bulletin are considered as real actions. In this case, it is important to understand how 'real' is defined in the relationship with the virtual community. Instead of directly define the term 'real', Chalmers raises a question of 'is virtual reality real?' Before he express his understanding on this question. His answer is that:

The common view is that virtual reality is a sort of fictional or illusory reality, and that what goes in in virtual reality is not truly real. I will define the opposite view: virtual reality is a sort of genuine reality, and what goes on in virtual reality is truly real (Chalmers, n.d., p. 1).

Chalmers' idea about how the meaning of 'real' is defined in virtual reality shares some similarities with Rheingold's. They both do not deny the realistic of the virtual reality and experiences. Rheingold points out that 'the WELL (a computer conferencing system that enables people around the world to carry on public conversations and exchange private electronic mail) felt like an authentic community to me from the start because it was grounded in my everyday physical world' (1998). If actions of sending emails, browsing websites, accessing e-bulletin are considered as 'virtual actions' only, which may be assumed that is unreal. What are 'real or physical actions' stood for? This question seems controversial. Virtual activities would not happen without actions taken in the physical world. For example, sending emails requests the action of typing on keyboard. Before browsing a website we also need to key in the website on the Internet server.

1.3 Virtual Community

Virtual community does not only about the activities of sending and receiving emails. In the contemporary world, its activities has been expanded to online games and the participation of the virtual world, which are more about role playing experiment and simulation. It seems to Rheingold that it is not necessary whether or not the friends he met through the Net would lead to a physical meeting. However, those friends do help him to gain new knowledge, such as a specific culture of a place, or a country. He shares his experience that 'I've found ready-made communities that I met online before I traveled; out mutual enthusiasm for virtual communities as a bridge, time and again, to people whose language and customs differ significantly from those I know well in California' (1998). Exchanging ideas and sharing custom could be the major parts that most virtual community members do for online communication, as there are a large number of topics to talk about even within two people who have never met physically. This is also one of the key reasons why virtual communities are more and

more popular twenty years later after Rheingold's sharing of his experience.

According to Rheingold, a virtual community can have a number of forms. It can be a computer conference system, the WELL for instance. This allows people to hold their conversations and send emails to each other. It can be a role-play game where people take an alternative identity. It can be a community that crosses different countries and cultures via email to connect with people all over the world. Rheingold explains that even though methods that people use for communicating on the screen are limited. For example, people can only use typed words to exchange ideas and opinions, however, it does not affect too much about people's enthusiasm of participating online. This could be answered why more and more people enjoy making friends via virtual community. Seeking for emotional support is one of the key reasons why people take part in virtual world.

Although there is a missing part of friendship that is built through the Net, which is the part of physicality, one critical aspect that we must never forget is: people have emotion, feeling, and love. Without a physical meeting of each other does not mean that the person on the other side of the screen is different from who they are in the physical world. Rheingold expresses his agreement on this: 'I'm not alone in this emotional attachment to an apparently bloodless technologies ritual' (1998). The only limitation is that in virtual community you are not able to show your facial expression, which is reflected about sadness or happiness. However, a person can use words as an alternative to express his/her feeling. It should not be questionable about activities that are taken through the Net is unrealistic or even unbelievable. It is a common sense that some people may worry about the friend that makes online is not trustable. We may ask that how can you 100% ensure that friend you make in the physical world is reliable? Some people may feel more comfortable talking to friends via virtual community than in the physical world. Virtual community allows them to be more open and offers more freedom for them to share ideas and personal insights. To some extent that they do not have to worry too much about their opinion they share that may lead to serious consequence.

1.4 Communication Technology

It seems to Rheingold that virtual community provides certain degree of social experiments for its participants. It changes the way how people gain social experiments through the physical world. As he puts it:

We now know something about the way previous generation of communication technologies changed the way people live. We need to understand why and how so many social experiments are coevolving today with the prototypes of the newest communications technologies (1998).

It is no deny that the way how people live is very different from what they were before the invention of communication technology. These changes are not only based on those who join virtual community, but also the invention of mobile phone, for instant, which has great impact on the way how people communication with each other via digital device. Traditional people use mobile phone to make phone calls, which requests voice communication. The invention of iPhone has overturned the way how people use the mobile phone, along with many applications (Apps) are available for downloading on the mobile phone, people hardly make phone calls, they are more keen to send text messages through an App, for example, WhatsApp. Making a phone call is no longer the only way that makes communication feasible between users. The availabilities of chatting Apps offer more channels to the mobile phone users in order to fulfill the purpose of communication. The way how people use mobile phone in the contemporary world is similar with how people use virtual community for. Virtual community does not function merely as to send and receive emails, it offers the users with various purposes.

1.5 The CMC

Rheingold provides several key concept's definitions in the par of 'Introduction'. Namely: The Net; Virtual communities; and Cyberspace. He defines The Net is 'an informal term for the loosely interconnected computer networks that use CMC technology to link people around the world' (1998). Virtual communities 'are social aggregations that emerge from the Net when enough people carry on those public discussions long enough, with sufficient human feeling, to form webs of personal relationship space' (1998). In the case of Cyberspace, he explains that it is 'originally a term from William Gibson' science-fiction novel *Neuromancer*, is the same some people use for the conceptual space where words, human relationships, data, wealth, and power are manifested by people using CMC technology' (1998). We can see the term 'CMC' appears quite often within these definitions, however, Rheingold does not provide the meaning of what 'CMC' stands for. It makes it difficult to connect this term with the later content where he discusses 'CMC' and its impact on people's lives. As Rheingold writes it:

CMC has the potential to change our lives on three different, but strongly interinfluential, levels. ... CMC appeals to us as mortal organisms with certain intellectual, physical, and emotional needs. ... the second

level of possible CMC-triggered change is the level of person-to-person interaction where relationships, and communities happen. ... The third level of possible change in our lives, the political, derives from the middle, social level, for politics is always a combination of communications and physical power, and the role of communications media among the citizenry is particularly important in the politics of democratic societies (1998).

The quote above taken from Rheingold's book under the part of Introduction. The first level about how CMC affects people's lives, Rheingold expresses that 'the way we use the medium and the ways it uses us' are 'shaped by other communications technologies' (1998). This claim is very unclear. It is understandable about how our perceptions, thoughts, and personalities are affected by the ways we use communication technologies. For example, people with different personalities may have different way to send messages on mobile phone through an App. For older generation, people are more keen to use voice messaging than text messaging. However, this phenomenon does not only happen to the senior people, but also young generation. Many young people would prefer using text rather than voice messaging, as it allows them to re-think and re-type the message before it is sent. This has not direct relation to one's personality, for example, a quiet or shy person may not like to use voice messaging. What makes Rheingold's claim unclear is the statement of 'the ways it uses us' (1998). Firstly, this sentence has grammatical error. Secondly, it is very confused about what 'it' is referred to here? Finally, if the term 'it' is referred to 'communication technologies', how can we, as human are used by communication technologies? This is problematic. We believe that Rheingold provides some useful ideas in terms of CMC, but it is important for us, as the book readers to be provided a full name of certain professional terms instead of simply an abbreviation. Moreover, a clear structure of sentences plays a critical role to help readers better understand what the author means exactly. By doing so, we can avoid making assumption or create misunderstanding.

Moreover, the communication scholar McLuhan's name is first introduced by Rheingold in the content of CMC's impact on peoples' lives. Instead of neither putting McLuhan's name (which should include the first name) directly, nor providing a particular quote of McLuhan that Rheingold would like to refer to, Rheingold simply use the term 'pre-McLuhanized', which is confusing and unclear about what he is trying to talk about. McLuhan's well-known writing 'The medium is the message' could be one of the possibilities about what Rheingold refers to. However, it is only a piece of consumption without confirmation. It makes it difficult for the readers who may not have read McLuhan's work previously. Even if one may have done so, it is important for the author to explain it and shows how a particular theory is applied to, and in what ways.

Rheingold provides two examples to analyze the first impact of CMC. The first one is how a medium is used and the way how people's lives are affected by the medium. The second example is MTV. Rheingold uses it as to draw readers' attention to the way how young generation no longer pay too much attention on television and telephone. Instead, young people are more attracted by the online interactions. In Rheingold's point of view that the age of media saturation is changed by human personalities, which is what he points out at the first claim about 'personalities [are] already shaped by other communication technologies' (1998). From this critical review's perspective that a person's personalities have less or no relation to the usage of communication technologies. It is merely about personal preference on how a person interacts with a particular device.

The second level of CMC's impact is on interpersonal relationship. It seems to Rheingold that it could be a challenge to build some kind of community with those who gain different value through the community. One of the major reasons is that people create groups or join a community with those who share similar value, or the value is gained through by banding together. This could lead to the isolation, or limit the chances of interaction. Marc Smith, a graduate student from UCLA who conducts his fieldwork in the WELL and the Net, calls it 'collective goods' (Rheingold, 1998).

2. Discussion

To begin with a small but important point, Rheingold uses quite a number of abbreviations, such as WELL, that play a key role in his work. However, these abbreviations should have been given in full the first time they appear. Consequently it is hard for a reader who has not that much familiarity with the field of computer science to follow the ideas. For example, Rheingold invites the term ARPANET as the first time that it appears in his book. He introduces that 'ARPANET is the first computer network, it was created in the 1970s' (1998), but what ARPANET stand for? As another key word in this article, there is no annotation to explain this word. Secondly, there are three terms that need elaborate explanations: the net; virtual communities; and cyberspace. These words are more or less similar in terms of their definitions, and it is difficult to make a clear distinction between each of them. The author only takes a paragraph to define each term.

Further, the structure of this work is difficult to understand and follow. For example, Rheingold shares his

experience in the virtual world, and it seems to the reader that he has a wonderful time being there, with friends that he knows and with those who meet only through the virtual community. However after discussing these experiences, he suddenly changes to another topic that has not so much connection with the previous one, and it is hard for the reader to follow. Finally, there is the issue of Rheingold's attempt to remind people that they should keep their eyes open in virtual communities in case they fall into a trap. However, when he mentions that 'the future will be shaped for us by large commercial and political power holders' (Rheingold, 1998), there is no explanation linking what has gone before to this development. It would have helped if he had provided some examples to explain why he has this concern, and how they can be avoided.

Rheingold's introduction is too short to cover such a big topic and the many theoretical terms and issues that are used to research and give an account or explanation of it. Rheingold limits himself to two major themes in his work. The first one is about virtual communities and technology, and the second one is about the concerns and expectations of the author. However Rheingold does not organize this work very clearly, and the examples that he provides in the text are interesting but need further explanation and linkage to the points that he is explaining.

Rheingold draws readers' attention to his major concern about new technology, specifically in terms of the mixing of technology (Rheingold, 1998). He explains that personal computers are affordable for most ordinary citizens. For Rheingold, the technology provides its users both positive and negative experiences. On the one hand, freedom is a big issue as people enjoy much more freedom online than offline world. On the other hand, people may experience harm or vocal violence online. He agrees that virtual community offers certain degree of freedom to its users in many ways that they are denied in the real world, however, people should be more critical on how difference opinion is shared online in order to avoid being manipulated by commercial and political power holders (Rheingold, 1998). He turns his focus to the introduction of the ARPANET, which was the first computer network. He firstly provides brief background information about how ARPANET was invented. Secondly, he points out that the development of ARPANET was accompanied by other inventions, such as electronic mail, which was not the plan of the programmers initially (Rheingold, 1998). Finally, Rheingold switches his focus to the introduction of the BBS and its functions. As for some virtual community users that there is a clear boundary between online and offline world. In other words, these users may claim that there is no overlapped between the two worlds. As for Rheingold, his offline life is somehow affected by the experience that he gains online.

It is quite clear that Rheingold's intention is to remind people that they should not be passive in virtual communities. It is very important to have a good understanding of things that go on in the everyday life of virtual world. It is interesting to read about virtual world experiences and how people interact with each other. Moreover, the author uses his own experience gained from the activities that he attended. Rheingold mentions about real-life WELL marriages, WELL births, and even a WELL funeral that he attended.

3. Panopticon

Rheingold uses Benrham's term 'panopticon' after briefly introduces the terms WELL and ARPANET. Panopticon is used as a metaphor in order to express his concern about how privacy and information are brought out from citizens' home. Initially it is that the information is brought into citizens' home. However, the development of technology makes it an interactive ways, which allows the information to be spread from home via the cables. Why Rheingold uses panopticon as a metaphor to show his concern? What is the meaning of panopticon?

According to Schirato, Danaher, and Webb:

Panopticon was a tower placed in a central position within the prison. From this tower, the guards would be able to observe every cell and the prisoners insides it; however, it was designed in such a way that the prisoners would never know whether they were being observed or not. Prisoners would assume that they could be observed at any moment and would adjust their behaviour accordingly (2012, p. xxiv).

Rheingold does not provide a detail explanation of the term panopticon. Within a single paragraph where panopticon is first introduced to the readers, Scholar Jeremy Bentham, who invents the term Panopticon, and Michel Foucault's work *Discipline and Punish* are briefly brought into the discussion. Rheingold's decision on using both scholars' works is useful for the discussion about privacy and information. However, to provide some additional information about these works is necessary. Firstly, Panopticon could be a new term for those who are not specifically working under the field of Communication. It makes it difficult for general readers to understand what it is meant. In this case, it would be helpful and important to provide some background information about the term, for example, what makes Panopticon relevant to the way how privacy and information are brought into and out from citizens' home. Secondly, Michel Foucault's works are widely influential on many fields and

disciplines, such as sociology, psychology, as well as communication. Schirato, Danaher, and Webb write that ‘... his work on power, discourse, subjectivity, disciplinarity, surveillance and normativity can contribute to our understanding of the contemporary world and its practices’ (2012, p. 1).

It is clear that Foucault’s theories, in particularly, on surveillance is supportive in relation to the content of privacy and information. However, it seems that Jeremy Bentham’s concept of panopticon is not so much applicable to the same topic. The main idea of panopticon is that prisons assume that they are being observed anytime by living in the 360 degree of panopticon. They adjust their behaviors accordingly in order to avoid making any inappropriate mistake. Rheingold connects Foucault’s claim that ‘the machinery of the worldwide communications network constitutes a kind of camouflaged panopticon; citizens of the world brought into their homes, along with each other, the prying ears of the state’ (1998). Rheingold paraphrases Foucault’s claim without putting any reference, such as the page number of the book and year of publishing. This paraphrasing seems incomplete, moreover, the contextualize content is needed and helpful if Rheingold could write more about it, by doing so, it can help the readers to understand what exactly Foucault’s claim is about, for example, under what circumstance or historical background that Foucault’s idea is from. Foucault’s theory on surveillance has greater connection with the concept of panopticon. In the book *Understanding Foucault* written by Schirato, Danaher, and Webb, they write that

The most significant metaphor for explaining the relation between apparatuses and surveillance, Foucault contends, is the panopticon. ... in previous penal regimes, prisoners had been removed from sight either in dungeons or by transportation, but the panopticon worked on an entirely different principle – that the best way of managing prisoners was to make them the potential targets of the authority’s gaze at every moment of the day (2012, pp. 87-88).

Returning to the connection with privacy and information and the way how they are spread, who are the prisoners? And who are the guards? Without clear answers of these question, it is impossible to understand the idea of ‘prisons adjust their behavior accordingly’, because there is no confirmation about who are being observed. It is the author’s job to provide explanation and make every claim clear instead of leaving the questions to the readers. Even though Rheingold’s critic is that ‘the cables that bring information into our homes today are technically capable of bringing information out of our homes, instantly transmitted to interested others’ (1998). It is still not so relevant to the meaning of that panopticon targets to.

It seems to Rheingold that on the one hand, he shows his appreciation on the invention of virtual community at the beginning of the introduction, on the other hand, he suddenly changes his attitude on it when he begins to bring in Bentham and Foucault’s works. He uses the example of ‘we should not forget that intellectuals and journalists of the 1950s hailed the advent of the greatest educational medium in history – television’ (1998) in order to support his claim about the humanitarian potential of virtual community. This example is only in a single sentence that has no specific name of who the intellectuals and journalists were. Moreover, there is no further explanation about this example after the sentence is complete. The writing style that Rheingold applies to his work is very brief and abstract. For example, the works of Bentham and Foucault should be at least discussed in two separate paragraphs. This includes provide definitions of the key concepts, background information of the theoretical terms, examples that help to link the author’s concern or claims that is related to those concept.

4. Conclusion

Rheingold does not clearly present his position on virtual worlds. In the conclusion, Rheingold has not made an argument as to whether the invention of the virtual community is a good or a bad thing. It is obvious that Rheingold has his concerns about the increasing number of virtual communities and their participants. However, his discussion of these concerns is rather superficial. This is a problem given that the question of whether or not the human life has been affected by the rapid development of information technology and virtuality has been widely discussed in academic literature. When he does take a position, it is sometimes hard to know what he means, or to make sense of the significance of his statements. One example of this is his final sentence: he confesses that ‘I’ve been colonized; my sense of family at the most fundamental level has been virtualized’ (Rheingold, 1998).

Rheingold’s work lacks evidence and explanations. For example, when Rheingold talks about the case of people being addicted to virtual communities, such as Minitel in France and Multi-User Dungeons, he needs to provide a further explanation about the reasons why these communities were banned at universities in the U.S. Moreover, the author uses too many unexplained professional terms in the subject area of computer science; again, there are very few explanations or examples. There also should have been a brief history or a timeline provided so that the reader could easily understand which developments came first, for instance. That would have made his account

easier to follow.

To sum up, this is an interesting piece of work but it does not function well as a piece of serious research. However it does provide a better understanding of the virtual community. It is also interesting to read about the virtual experiences of the author. These accounts of the author's virtual experiences provide the basis for further discussion on the subject area, and they will be useful to my dissertation topic.

References

- Chalmers, D. (n. d.). *The virtual and the real*. Retrieved from <http://consc.net/papers/virtual.pdf>
- Rheingolad, H. (1998). *The Virtual Community*. Retrieved from <http://www.rheingold.com/vc/book/intro.html>
- Schirato, T., Danaher, G., & Webb, J. (2012). *Understanding Foucault*. Sydney: Allen & Unwin.

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Academic and Daily Life Satisfaction of *Monbukagakusho* Scholarship Students in Japan: The Case of Peruvian as International Students in Japan

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Abstract

As the birth rate in Japan continues to decline, there is a growing need to ensure the availability of highly qualified foreign professionals. In order to attract more international students, it is necessary to understand the variables from the academic and daily life that international students face in Japan. This study shows the variables that influence academic satisfaction, daily life satisfaction and the relationship between these variables for Peruvian students serving as *Monbukagakusho* scholars in Japan. This study also describes the *Monbukagakusho* scholars experience in their academic and daily life in Japan, which has a unique culture. Mix methodology was used in this study. The quantitative model based on individual data taken from a survey administered to Peruvian *Monbukagakusho* students, who were studying or are continuing their studies in Japan. The results show that the dependent variables and academic satisfaction are significantly related to language difficulties. Regarding the second dependent variable of, daily life satisfaction, we find a significant relationship between those who choose to study in Japan for cultural reasons and those, who study in shared laboratories and the type of scholarship received. Economic factors such as financial scholarship values are not related to dependent variables. A qualitative design of grounded theory was used as a framework to explore the experiences of *Monbukagakusho* students' definition of academic and daily life satisfaction in Japan. Five relevant Japanese codes stand out from the interviews; *cohai-sempai*, *tatema*, *hon*, *omoiyari* and *aisowarai*.

Keywords: academic satisfaction, daily life satisfaction, international students, *Monbukagakusho*, scholarships, Peruvian students

1. Introduction

1.1 Background

According to a report presented by the MEXT (Ministry of Education, Culture, Sport, Science and Technology of Japan), the number of international students studying in Japan in the 2017 academic year amounted to approximately 276,000 with 9,166 sponsored by the Japanese government. Most foreign students awarded scholarships by the Japanese government originated from Asian countries such as China, accounting for students 1064 students in the 2017 academic year. The 2008 "Plan for 300,000 Foreign Students", created as a target for the year 2020 is sponsored by the Japanese government. The plan's objective is to render Japan more open to the rest of the world. As the birth rate in Japan continues to decline, there is a growing need to ensure the availability of highly qualified foreign professionals. The policy was also developed to promote the participation of young people and women in Japanese society and to sustain the country's future development. As such, based on the "Japan Recovery Strategy" and the "Second Plan for the Promotion of Basic Education" (Cabinet Decision on June 14th, 2013), it was decided that the number of international students should increase to 300,000 by 2020. (Minister of Education Culture, Sports, Science and Technology-Japan [MEXT], 2018). Therefore, it is important to determine how international students overcome social, academic and cultural changes to their daily and academic lives as foreign students in Japan while pursuing their academic goals at Japanese universities. *Monbukagakusho* Scholarships are offered to applicants in more than 168 countries where application characteristics and programs developed are largely similar. Accordingly, this study analyzes the case of Peruvian

Monbukagakusho scholars in Japan. International students in Japan need to understand the adjustment problems faced by other international students experienced in Japan to give support. Based on this assumption, the objective of this study is to find the variables that influence Academic Satisfaction, Daily Life Satisfaction and the relationship between these variables for Peruvian students serving as *Monbukagakusho* scholars in Japan. In addition, how *Monbukagakusho* scholars experience their academic and daily life in Japan which is ignored in existing research.

1.2 Research Statement, Objective and Questions

The 2008 “Plan for 300,000 Foreign Students”, created as a target for the year 2020 is sponsored by the Japanese government. The plan’s objective is to render Japan more open to the rest of the world. As the birth rate in Japan continues to decline, there is a growing need to ensure the availability of highly qualified foreign professionals. The policy was also developed to promote the participation of young people and women in Japanese society and to sustain the country’s future development. As such, based on the “Japan Recovery Strategy” and the “Second Plan for the Promotion of Basic Education” (Cabinet Decision on June 14th, 2013), it was decided that the number of international students should increase to 300,000 by 2020. (Minister of Education Culture, Sports, Science and Technology-Japan [MEXT], 2018). Therefore, it is important to determine how international students overcome social, academic and cultural changes to their daily and academic lives as foreign students in Japan while pursuing their academic goals at Japanese universities. However, the literature does not present current data on international students studying in developed countries with special social codes such as Japan, which is socially, culturally and economically distinct from other developed countries. There has been limited research on the experiences of foreign students in Japan and especially regarding their levels of Academic Satisfaction and Daily Life Satisfaction. Accordingly, the study used a mixed methodology to answer the following questions; first; Which variables influence the daily lives and Academic Satisfaction of Peruvian *Monbukagakusho* scholars most in their pursuit of academic objectives in Japan?; second: What is the relationship between Daily Life Satisfaction and Academic Satisfaction for Peruvian *Monbukagakusho* scholars?; third; How *Monbukagakusho* scholars experience their academic and daily life in Japan?. The hypothesis of this study is that statistically significant variables explain the daily life and academic satisfactions of Peruvian scholar and there is a relationship between “daily life satisfaction” and “academic satisfaction” for Peruvian *Monbukagakusho* scholars in their pursuit of their academic goals in Japan. The objective of my study is to analyze the variables that influence *Monbukagakusho* students’ academic lives in Japan and levels of satisfaction generated by these variables throughout their stay in Japan as international students (referring to Peruvian *Monbukagakusho* scholars). The studied variables may improve the daily lives and academic experiences of future student scholars with *Monbukagakusho Scholarships* studying in Japan. This paper will be organized as follows: section two is dedicated to the literature review; the third section describes the research methodology; section four presents the quantitative analyzes and results; section fifth present the qualitative analyzes and results; and the last section presents the conclusion.

2. Literature Review

2.1 Peruvians in Japan and the *Monbukagakusho* Scholarship

Most Peruvians living in Japan can be divided into two groups. The first group includes Peruvian Nikkei who entered Japan with Japanese descent visas. “Their purpose was to work, save money and return to Peru. However, after two decades, they continue working and residing in Japan with their families” (Lagones, 2016, p. 1). The other group composed of Peruvian international students, upon whom this article focuses. Although studying as a Peruvian *Monbukagakusho* fellow will be very different from studying as a Peruvian resident alien, those who do not have visa problems but are immersed in the Japanese educational system. However, Lagones (2015) noted that “Japan is not prepared at all for foreign residents. Japanese school law accepts any foreign children to enter the elementary and junior high school as Japanese children do, but all the lessons are taught only in Japanese” (p. 268). In the case of Peruvian as international students, lessons are taught in English, compare with the other ones who are residents in Japan. Therefore, the main difficulty that they encounter relates to financial problems and applications to student visas that allow them to continue with their academic objectives. Applicants for the *Monbukagakusho* Scholarship received support in these ones, but they are willing to face considerable challenges related to living in a country that is culturally, religiously and socially different.

First, there are a variety of programs for studying in Japan, that can be completed with grants from the Japanese government (e.g., the *Monbukagakusho Scholarship*) designed for foreign students with private funding or through short-term programs. *Monbukagakusho Scholarships* are offered to applicants in more than 168 countries where application characteristics and programs developed are largely similar. Therefore, the sample of

recipients is homogenous, and small groups of students are small from each country enter the Monbukagakusho program each year.

The present work will focus on scholarships offered by the Japanese government to Peruvian students through its MEXT. The six scholarships offered include postgraduate scholarships, undergraduate scholarships, technical scholarships, occupational scholarships, teacher training scholarships and scholarships of the Japanese language and culture. These scholarships are unique in that, unlike others, are full scholarships, thus allowing students to focus entirely on their studies without financial concerns. Scholarships from the Japanese government are offered to countries with diplomatic relations with the Japanese government. The requirements for each scholarship can be found on the website of each cooperating embassy.

2.2 International Students' Issues

According to a report presented by the MEXT (Ministry of Education, Culture, Sport, Science and Technology of Japan), the number of international students studying in Japan in the 2017 academic year amounted to approximately 276,000 with 9,166 sponsored by the Japanese government. Most foreign students awarded scholarships by the Japanese government originated from Asian countries such as China, accounting for students 1064 students in the 2017 academic year.

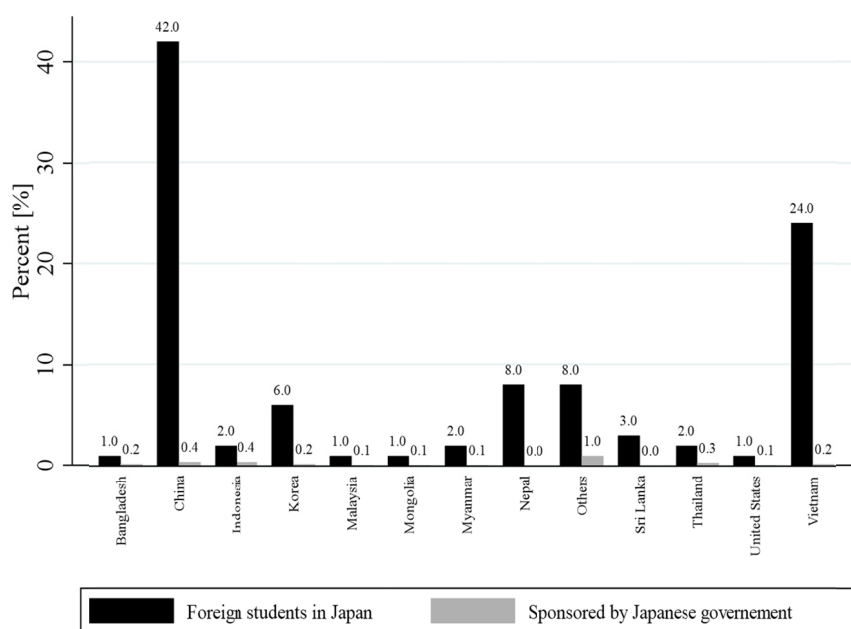


Figure 1. Foreign students in Japan in 2017

There has been limited research on the experiences of foreign students in Japan and especially regarding their levels of Academic Satisfaction and Daily Life Satisfaction. Nilsson (2015) confirmed that “Life satisfaction is an indicator of students’ wellbeing. Life satisfaction has an indirect effect on student mobility and is often an invisible problem” (p. 90). “A Well-being international students life included two general categories, one of personal satisfaction and positive effect, the other related to pursuing a meaningful and successful study abroad” (Wen-Chic & Newton, 2002). Therefore, “The necessity for social and cultural adaptation has a large impact on peoples daily live” (Hsu, 2011, p. 25).

On the other hand, another study examined the experiences of international students, scholars, and non-scholars in other countries and revealed problems related to such students’ sense of belonging and to linguistic and cultural barriers among other issues throughout their adaptation to the host country. Yan and Pei (2018), analyzed the negative experiences of international students at American universities on and off-campus in their efforts to secure a sense of belonging. The results show that “students feel a sense of belonging with individuals from their home countries or similar ethnic groups... and in some cases, they accept the mistreatment of their teachers, not wanting to jeopardize their academic position, necessary to retain their visa” (p. 466). In a similar way, Home et al. (2018) explain that “international students have much lower levels of belonging ... and this is felt among the highest performing students” (p. 365). Other results have found the following: “international students faced both linguistic and cultural barriers in their social interactions with American students” (Li & Zizzi, 2018, p. 389). A

clear example of this trend is observed in the United States, for which the findings reveal that international students face various challenges. Such students must deal with new people, societal customs, school systems and psychological and behavioural changes in adapting to their new environment. Such findings pertain to academic, social and cultural factors (Wu, Garza, & Guzman, 2015).

Liu, in his research on international students' decisions to move to Japan, found that an interest in Japanese culture has a positive effect on international students' decisions to stay in Japan. On the other hand, Liu (2016) noted that language barriers serve as the most significant obstacle to this goal (p. 8). In 2003, Tamaoka, Ninomiya, and Nakaya concluded, "Japanese language ability is not necessarily required to communicate with supervisors and in conducting research" (p. 125). However, it should also be considered that the objective of studying abroad is to "gain experiences in the host country rather than abandoning its cultural heritage and adopting a cultural one where international students live for a relatively short period (Forbes-Mewett & Nyland, 2008; Kingston & Forland, 2008), where language constitutes an important part of this process" (cited in Newsome, 2016, p. 196).

In general, "Half of all international students go to five English-speaking countries: Australia, Canada, the United States of America, New Zealand and the United Kingdom" (UNESCO, 2018, p. 42). Additionally, "in several Asian countries with declining birth rates and ageing populations, such as Japan, higher education opens to foreign students" (UNESCO, 2018, p. 42). Therefore, it is important to consider that Japanese universities have a hierarchy-based system that plays an important role in academic relationships for foreign students in Japan. Researches have explained that the role of the academic advisor and the personal tutor as social support. (Yamamoto et al., 1986; Hicks, 1988).

These differences and the lofty academic goals that students pursue are limited when there are no academic resources available to inform them of the changes that come with becoming an international student in Japan. Therefore, it is vital to not only determine the benefits that this scholarship offers but to also identify the limitations and experiences of scholars and former grantees of the *Monbukagakusho* Scholarship in helping award recipients achieve a satisfactory academic experience and a satisfactory way of life while studying in Japan.

Specifically, four major categories emerged from the previous studies that will be analyzed to explain the levels of Academic Satisfaction and Daily Life Satisfaction of foreign students: (1) academic relationship; (2) daily life troubles; (3) motivation for the host country; (4) personal characteristics; and (5) economic.

3. Research Methodology

To test the hypothesis and answer the research questions; the study employs data from a mixed-method approach to research. For the quantitative analysis, I used the responses from the Dichotomous and rating scale questions (Closed-Ended Format) as an input to estimate an ordinal regression model. For the qualitative study, I used a deep interview with current *Monbukagakusho* students to explain their experiences of while they stay in Japan.

3.1 Data Collection

Data used for the present investigation were provided by student scholars and former grantees who have been recipients of the *Monbukagakusho* Japanese Scholarship (MOJAS). Surveys of Peruvian *Monbukagakusho* Scholarship students (SMS-PS-Japan) were administered using Google online services, via email. According to Meho (2006), online communication can support some interviewers to express themselves (p. 1289). The SMS-PS-Japan survey was designed by the researcher to identify and document experiences with the MOJAS before and during their studies in Japan to identify the variables that most heavily influence satisfaction with the MOJAS program in terms of academic and Daily Life Satisfaction and in terms of obtaining international student certification in Japan. The survey used semistructured open- and close-ended questions. The investigation also used qualitative data derived from interviews to clarify and support the quantitative results.

3.2 Data Description

Hill et al. (2005) recommend that sample from homogeneous composition could be selected randomly. A total of 20 scholars and ex-grantees of *Monbukagakusho* scholarships who had completed their studies in Japan were studied. The participants have the following characteristics: (a) Peruvian nationality and (b) past scholars and ex-grantees *Monbukagakusho* scholarships from the Japanese government. The 20 participants are Peruvians; 60% are men and 40% are women; 95% are single and 5% are married without children; they are aged 19 to 33 years; 23.8% are Japanese descendants (Nikkei), and 76.2% are non-Nikkei Peruvians. Regarding academic focuses, 38.1% studied science, 28.6% studied the humanities, 28.6% studied engineering and 3.7% studied medicine. Regarding types of scholarships received, 71.4% of the students received postgraduate scholarships, 9.5%

received undergraduate scholarships, 9.5% received teacher training scholarships, 4.8% received technical scholarships and 4.8% received Japanese and culture scholarships. It is worth noting that regarding the students' activities in Peru before entering the scholarship program, 61.9% were working and studying, 19% were only studying and 19% were only working. In addition, 25% of the respondents had previously travelled to Japan for various reasons. Studies were carried out in, Tokyo, Yamagata, Tsukuba, Kyoto, Osaka, Chiba, Sapporo, Fukuoka, Nagasaki, Kashima, Hiroshima and Nagoya. Regarding the students' Japanese language abilities, 71.4% had not completed the Japanese Language Proficiency Test (JLPT) and only 28.6% had taken it. Of the group of respondents who did complete the Japanese exam, 16.7% had completed Level N5, 33.3% had completed Level N4, 33.3% had completed Level N3 and 16.7% had completed Level N2. Levels N1 and N5 of the official Japanese Language Proficiency Test (JLPT) respectively test for the highest- and lowest levels of proficiency. Regarding English language proficiency, 76.2% had taken an international exam in English, and 23.8% had not.

4. Quantitative Analysis

The present study examines the most important variables that affect the Academic Satisfaction of Peruvian international students in pursuit of their academic objectives in Japan and their levels of Daily Life Satisfaction using a quantitative method. I consider funds allocated through each scholarship, types of scholarships received levels of satisfaction with such scholarships and part-time work performed by the students in Japan, as economic factors that can strengthen academic levels of satisfaction and Daily Life Satisfaction among students in Japan.

Other factors may also influence students' levels of academic and Daily Life Satisfaction while studying in Japan. The first relates to the academic environment involved, as this would affect students' satisfaction with social networks in their daily and academic lives. The second concerns social problems experienced in daily and academic life. The motivation to study in Japan could also influence levels of academic and Daily Life Satisfaction. For example, some students may decide to study in Japan due to their interest in manga culture. Finally, the personal characteristics of the students are evaluated

4.1 Description of Independent Variables

The independent variables were obtained through the SMS-PS-Japan survey and were grouped into 5 categories: Personal characteristics, Motivation, Daily Life, Academic and Economic. In this study, 10 models were estimated, of which 5 pertain to the level of

Academic Satisfaction while the rest pertain to Daily Life Satisfaction. For each model, only independent variables (X_n) belonging to a certain category were used.

a. The first category of Personal Characteristics, measures the following variables:

- Gender: Indicates the participants' gender (1 = Female, 0 = Male),
- Marital Status: Indicates the participants' marital status (1 = Married, 0 = Single),
- Nikkei: Indicates whether the respondent is a Japanese descendant (1 = yes, 0 = no),
- Age: Indicates the participant's age at the time of receiving the scholarship (3 = 34-30, 2 = 25-30, 1 = 21-25, 0 = 18-25),
- Major: Indicates the participants' university major (3 = Engineering, 2 = Medicine, 1 = Science, 0 = Humanities).

b. The second category, namely, Motivation measures the following:

- Culture: Indicates whether the respondent wants to study in Japan for cultural reasons. (1 = yes, 0 = no),
- Education: Indicates if the respondent was motivated to study in Japan in search of quality education (1 = yes, 0 = no),
- Scholarship: Indicates if the respondent was motivated to study in Japan due to benefits provided by the scholarship (1 = yes, 0 = no),
- Work: Indicates whether the respondent was motivated to study in Japan due to future career prospects (1 = yes, 0 = no),

c. The third category, Daily Life, measures the following variables:

- Culture Shock: Indicates if the respondent experienced problems related to experiencing a culture shock during his or her stay in Japan (1 = yes, 0 = no),
- Language Barrier: Indicates if the respondent experienced problems related to language barriers during his or her stay in Japan (1 = yes, 0 = no),
- Friendship: Indicates whether the respondent experienced problems related to friendship during his or her stay in Japan (1 = yes, 0 = no),

- Professor: Indicates if the respondent experienced problems related to his or her professors during his stay in Japan (1 = yes, 0 = no),
- Weather: Indicates whether the respondent experienced problems related to climatic patterns during his or her stay in Japan (1 = yes, 0 = no),
- Travel Abroad: Indicates if the respondent had the opportunity to travel abroad during his or her their stay in Japan (1 = yes, 0 = no).

d. The fourth category, Academic, measures the following variables:

- Relationship with professor: Indicates if the respondent experienced positive relationships with his or her professors (0 = Not Good, 1 = Fair, 2 = Good),
- Office relationships: Indicates whether the respondent experienced positive relationships with the university's international office (0 = No Good, 1 = Fair, 2 = Good),
- Research Laboratory: Indicates if the respondent completed his or her studies at a shared or private laboratory (0 = Shared, 1 = Private).

e. The fifth category, Economy, measures the following variables:

- Type of Scholarship: Indicates the type of scholarship received by the respondent (0 = Undergraduate, 1 = Postgraduate, 2 = Teacher Training, 3 = Technical, 4 = Japanese Training),
- Scholarship satisfaction: Indicates if the respondent is satisfied with the benefits that the scholarship offers (1 = yes, 0 = no),
- Scholarship amount: Indicates the monetary value of the scholarship received (0 = Up to 100,000 ¥, 1 = 100,000 ¥ ~ 150,000 ¥, 2 = 150,000 ¥ ~ 200,000 ¥, 3 = More than 200,000 ¥),
- Part Time Job: Indicates whether the respondent engaged in part-time work during his or her stay in Japan (1 = yes, 0 = no).

The below Table 1 shows the five categories and the descriptive statistics of the variables used in this research work:

Table 1. List of Data

Categories	Variables	Obs	Mean	Std. Dev.	Min	Max
a. Personal Characteristics	Gender	20	0.4	0.50	0	1
	Marital status	20	0.1	0.30	0	1
	Nikkei	20	0.25	0.44	0	1
	Age	20	0.6	0.50	0	1
	Major	20	1.25	1.16	0	3
b. Motivation	Select_culture	20	0.55	0.51	0	1
	Select_education	20	0.7	0.47	0	1
	Select_scholarship	20	0.85	0.36	0	1
	Select_work	20	0.2	0.41	0	1
c. Daily Life	Trouble_culture	20	0.55	0.51	0	1
	Trouble_language	20	0.65	0.48	0	1
	Trouble_friend	20	0.3	0.47	0	1
	Trouble_professor	20	0.3	0.47	0	1
	Trouble_weather	20	0.3	0.47	0	1
	Travel_abroad	20	0.65	0.48	0	1
d. Academic	Professor_relationship	20	0.4	0.50	0	1
	Office_relationship	20	0.15	0.36	0	1
	Research_lab	20	0.35	0.48	0	1
e. Economic	Type_of_sch	20	1.25	0.91	0	4
	Scholarship_satisfaction	20	0.8	0.41	0	1
	Scholarship_amount	20	0.15	0.48	0	2
	Part_time	20	0.5	0.51	0	1

Source: author

4.2 Description of Dependent variables

The regression model used is the ordinal probit using the following dependent variables:

S_a : Level of Academic Satisfaction on a scale of 1 (not satisfied) to 5 (very satisfied).

S_d : Satisfaction with daily life, on a scale of 1 (not satisfied) to 5 (very satisfied).

4.3 The Regression Model: Ordinal Probit

In order to understand the relationship between the dependent and independent variables, I used a regression model approach. Therefore, I chose the ordinal probit model because our dependent variables are categorical ordered variables, and the probit model has been widely used in previous studies.

The estimation equation used is as follows:

$$S_a = \sum_{n=1}^N \alpha_n X_n = \alpha_1 X_1 + \dots + \alpha_n X_n$$

S_a : The level of Academic Satisfaction (dependent variable)

α_n : Coefficient of the independent variable (n)

X_n : Independent variable (n)

N: Number of variables by category (Personal characteristics, Motivation, Daily Life, Academic and Economic)

$$S_d = \sum_{n=1}^N \alpha_n X_n = \alpha_0 X_0 + \dots + \alpha_n X_n$$

S_d : Daily Life Satisfaction (dependent variable)

α_n : Coefficient of the independent variable (n)

X_n : Independent variable (n)

N: Number of variables by category (Personal characteristics, Motivation, Daily Life, Academic and Economic)

4.4 Quantitative Results and Discussion

According to the first hypothesis, there should be statistically significant variables that explain the Daily Life and Academic Satisfaction of Peruvian *Monbukagakusho* scholars who pursue their academic goals in Japan based on, variables of four categories: Motivation, Daily life, Academic and Economic.

For Motivation, we find no significant variable in terms of Academic Satisfaction. However, “Selection of culture” presents a positive estimated coefficient with respect to Daily Life Satisfaction, showing that those who choose to study in Japan due to its culture, exhibit a higher level of Daily Life Satisfaction. Students who are interested in Japanese culture are more motivated to understand Japanese social codes in their daily lives.

Next, for Daily Life, “Trouble with language” presents a negative estimated coefficient with respect to Academic Satisfaction. Thus, students who stated that they did not experience problems with the Japanese language exhibited a higher level of Academic Satisfaction. This is partly the case because English proficiency in Japan is not high, as only certain Japanese are required to address this gap in Japan. Second, those who understand the local language develop a stronger understanding of Japanese social codes. For Daily Life Satisfaction, no significant variables were found.

For the Academic category, with respect to Academic Satisfaction, no significant variables were found. However, for daily satisfaction, a significant relationship was found for the “Research lab” variable. Thus, students working in shared laboratories with other students enjoy more academic networking opportunities, rendering them more satisfied with their daily environment. Most students speak English at the universities where they study, allowing them to form social networks based on information that will prove useful outside of and on university campuses.

Further, as most laboratory students are foreign, students do not need to practice Japanese social codes with them.

Furthermore, for the Economic category, with respect to Academic Satisfaction, no significant variables were found. Regarding Daily Life Satisfaction, the “Type of scholarship” granted is significantly related to Daily Life Satisfaction. In this case, Japanese language scholarship expressed a higher level of Daily Life Satisfaction than recipients of the other scholarships. Thus, students more proficient in Japanese are more independent outside of and within university campuses due to their language ability even when they cannot engage in social networking. As they are not immigrants and live in Japan for a limited period of time, they do not need to engage in social

networking, besides doing so in their academic and daily lives throughout their limited stay. Proficiency in the Japanese language helps the students better understand Japanese social codes compared to other students.

Finally, results observed regarding Personal Characteristics are not significant for either dependent variable (Academic Satisfaction and daily life).

Stronger coefficients were found for students citing culture as motivation to study in Japan (1.36) and working in a shared laboratory while studying in Japan (-1.35). These two variables have a stronger impact on levels of Daily Life Satisfaction. Regarding Academic Satisfaction, the most impactful coefficient corresponds to Language barriers" (-1.24), revealing a strong relationship between knowledge of the Japanese language and levels of Academic Satisfaction.

Regarding the second hypothesis, we find a relationship between "Daily Life Satisfaction" and "Academic Satisfaction" for Peruvian *Monbukagakusho* scholars in pursuit of their academic goals in Japan.

Results obtained from probit ordinal models of the quantitative analysis for the estimation of Academic Satisfaction are presented in the table below.

Table 2. Probit Model Regression: Academic Satisfaction

Categories	Variables	Model 1	Model 2	Model 3	Model 4	Model 5
Personal Characteristics	Gender	-0.22 [0.70]				
	Marital_status	0.41 [0.64]				
	Nikkei	0.16 [0.81]				
	Age	-0.45 [0.38]				
	Major	-0.12 [0.57]				
Motivation	Culture		0.21 [0.70]			
	Education		-0.28 [0.66]			
	Scholarship		-7.09 [0.99]			
	Work		0.93 [0.25]			
Daily Life	Culture Shock			-0.40 [0.40]		
	Language Barrier			-1.24 [0.03]**		
	Friendship			0.00 [0.82]		
	Professor			-0.51 [0.77]		
	Weather			0.22 [0.45]		
	Travel_abroad			-1.14 [0.07]*		
Academic	Professor relationship				0.63 [0.26]	
	Office relationship				-6.51 [0.99]	
	Research lab				0.35 [0.53]	

Economy	Type of scholarship	0.56			
		[0.10]			
	Scholarship satisfaction	0.60			
		[0.36]			
	Scholarship amount	-0.82			
		[0.20]			
	Part-time job (“Arubaito”)	-0.21			
		[0.69]			
Constant		-2.11	-8.67	-3.83	-6.31

Z-statistics are shown in parentheses. [*] $p < 0.1$, [**] $p < 0.05$.

Source: author.

Results obtained from the probit ordinal model of the quantitative analysis for the estimation of Daily Life Satisfaction are presented in the following table.

Table 3. Probit Model Regression: Daily Satisfaction

Categories	Variables	Model 1	Model 2	Model 3	Model 4	Model 5
Personal Characteristics	Gender	0.77				
		[0.24]				
	Marital_status	0.68				
		[0.46]				
	Nikkei	-0.22				
		[0.76]				
	Age	-0.50				
		[0.35]				
	Major	-0.46				
		[0.06]*				
Motivation	Culture		1.36			
			[0.03]**			
	Education		-0.73			
			[0.26]			
	Scholarship		-1.41			
			[0.17]			
	Work		0.90			
			[0.27]			
Daily Life	Culture Shock			0.26		
				[0.63]		
	Language Barrier			-0.05		
				[0.93]		
	Friendship			-0.24		
				[0.69]		
	Professor			-0.14		
				[0.83]		
	Weather			0.42		
				[0.52]		
	Travel_abroad			-0.83		
				[0.15]		
Academic	Professor relationship				0.13	
					[0.82]	
	Office relationship				-0.66	
					[0.40]	
	Research lab				-1.35	
					[0.03]**	

Economy	Type of scholarship	1.03
		[0.05]**
	Scholarship satisfaction	0.13
		[0.85]
	Scholarship amount	-0.08
		[0.88]
	Part-time job (“Arubaito”)	0.23
		[0.68]
Constant		-2.59 -3.01 -2.24 -2.56 -0.53

Z-statistics are shown in parentheses. [*] $p < 0.1$, [**].

Source: author.

Results obtained from the probit ordinal model of the quantitative analysis for the estimation of Daily Life Satisfaction considering Academic Satisfaction as an independent variable and vice versa are presented in the following table.

Table 4 shows a strong correlation between “Daily Life Satisfaction” and “Academic Satisfaction.” Therefore, if the independent variables enhance Academic Satisfaction, levels of Daily Life Satisfaction should also increase due to this correlation. In the same way, if the independent variables enhance Daily Life Satisfaction, Academic Satisfaction should increase as well.

Table 4. Probit Regression Model: Academic Satisfaction vs. Daily Life Satisfaction

Variable	Daily Satisfaction	Academic Satisfaction
Academic Satisfaction	0.8468124	
	[0.017]**	
Daily Satisfaction		0.9482428
		[0.011]**

Z-statistics are in shown parentheses. [*] $p < 0.1$, [**] $p < 0.05$

Source: the author.

5. Qualitative Analyses

The research, previously described, variables that explain the Daily Life and Academic Satisfaction of Peruvian *Monbukagakusho* scholars. Qualitative analysis is necessary to explain how *Monbukagakusho* scholars experience their Academic and Daily Life in Japan. A qualitative design of grounded theory was used to analyze *Monbukagakusho* scholars’ definition of Daily Life and Academic Satisfaction to figure out categories and variables that scholars as international students face in Japan. I will focus on finding academic and social codes that scholars face in Japan by asking the question: How do *Monbukagakusho* scholars define their Daily Life and Academic Satisfaction as a foreign student in Japan?

Five *Monbukagakusho* scholars who are studying at a Japanese public university participate in this research. The aim was to add a new approach from the Daily Life and Academic Satisfaction that Peruvian *Monbukagakusho* scholars experienced in Japan. The five interviewed are Peruvians, between twenty-five and thirty-four years old, one is married and four singles. The researcher obtains consent from each interviewer before the interview started. The interview took place in a public place in Aichi Prefecture Japan. The time expended in the interview differs one by one between one and two hours and it was tape-recorded.

5.1 Data Analysis

The analysis of the data used the grounded theory; (1) open coding (2) selective coding and (3) Axial coding. After the interviewee, the research uses the open coding, to transcript the tape-recorded by sentence analysis, to figure out the relevant categories. Then, during the axial coding process, the research figures out the subcategories to compare, expand and explore the variation in the phenomena. Finally, the selective coding process is used to select the central category.

5.2 Qualitative Results and Discussion

According to the quantitative results, there is a strong correlation between Academic and Daily Life Satisfaction. Therefore, a qualitative study from the interviewees described *Monbukagakusho* scholar experiences at Japanese universities regarding their Academic and Daily Life Satisfaction throughout their time in Japan. From the interviewees, two important issues were analyzed to examine how Peruvian *Monbukagakusho* students challenged (1) Academic Satisfaction and (2) Daily Life Satisfaction in Japan. First, interviewees define the

concept of Daily and Academic Satisfaction, to detect their satisfaction in their academic and daily life while studying in Japan.

The interviewers reported many experiences regarding satisfaction in their academic and daily life. Then, open coding, axial coding and selecting coding of data analysis figure out two main categories: (1) Pursue academic goals for satisfaction and (2) Self-taught and independence for a satisfactory life as a foreign student.

5.2.1 Pursue Academic Goals for Satisfaction

According to the interviewees, their concepts of Academic Satisfaction defined in terms of its progression: The interviewees reported, “Academic Satisfaction is how you progress. I feel good when I continue with an academic speciality that I like and when I can contribute with patience. Satisfaction comes from doing something better.” “Academic Satisfaction is achieved when I can meet my learning and academic development goals.” “For example, Japan offers resources, equipment, etc., because everything related to engineering requires access to resources.” “I try to understand and use Japanese academic rules and skills in order to obtain my academic goals.”

From the previous description of academic satisfaction, the interviewee’s outcome developed two important categories for obtaining academic satisfaction in Japan; (1) motivation for academic goals and (2) understanding new academic rules and skills from the host country (Japanese codes).

a. Academic motivation

If the academic motivation of students is low, it will be difficult for them to take advantages of the benefits of studying in a country developed as Japan.

One respondent, a student who studies engineering, reported, “The impact of science and engineering is global, and some Japanese universities focus on supporting projects to be applied in developed countries.” This characteristic link with the academic goals of some post-graduate international students too, “I want to manage a research laboratory and obtain funding for a project to help my home country.” Other respondent reported, “Some Peruvian foreign students, who successfully finished their studies in Japan, found an academic position in Japan.” The academic motivation will help Peruvian students to expand their knowledge through conferences in other countries while they are in Japan. “The capacity to travel to other countries, and advantages in terms of obtaining a visa from other countries.”

b. Academic rules: *Cohai* - *Sempai* relationships

In Japan, unlike other countries, academic rules are singular. The terms *sempai*(first) and *cohai* (second) mean the hierarchy of respect that exists in Japan between the individual who has more experience and the one who has less experience without considering age. Therefore, considering the academic experience is relevant, the *sempai* is greater than *cohai*. The interviewees reported, “Learning is very hierarchical. A Master's student cannot say anything to a PhD student. First, I thought they did not want to say anything. When a PhD student is talking, the *Cohai* is silent. For a higher cycle, sometimes the teacher asks the student before entering a *Cohai* job.” “In my case, I dedicate myself to mechanical and control system design. Sometimes there are several options, but what the teacher or *sempai* says must be applied. Even when there is a better approach, it is not used.” “Here you adapt to the style of work because there is a friendly environment for successful work and cooperation in the laboratory.” “When you attend classes, you must follow academic rules to pass academic courses in Japan.” “Studying here to learn, Japan is better than studying in another developed country where I was before.” “In the other developed country, they hope that you already know how to complete the academic work in advance.” “In the other developed country, they give me the recipe, but they do not teach me as they do in Japan. Here in Japan, there is a lot of camaraderies, and everything is worked on as a team. In the other developed country, individualism is prioritized.” “Positions in Peru segregate. This does not exist in Japan.” “The *sempai* stands behind the *cohai* to determine what you are doing and teach you. They do this to guide you. At first, I did not understand it, but then I realized that the objective was to do this because how you are to work is pre-determined.” I realized this later as I learned more about Japanese culture.”

5.2.2 Self-taught and Independence for a Satisfactory Life as a Foreign Student

Regarding Daily Life Satisfaction the respondent reported:

“Daily Life Satisfaction can be defined as satisfaction with living fully in the social environment in general, family life, in academia, etc.” other respondent reported, “Become independent before travelling to the host country helped me to assimilate local rules more easily for my Daily Life Satisfaction.” In Japan it is not common to have a housekeeper, almost all Japanese even they have a job, they must do household by themselves.

And the most difficult to learn for foreign people is the recycling garbage system. As students reported “I do not usually cook or clean in Peru. In Japan, I have to cook, clean, recycle and shop by myself.” “In Aichi prefecture, I have to separate the trash in five types.” “The public transportation system here and the security are convenient to compare to my country”.

From the previous description of Daily Life Satisfaction, the interviewee’s outcome developed four important categories for obtaining satisfaction in their daily life as international scholar; (1) motivation to understand the host culture, (2) developing a multicultural network, (3) basic Japanese language and (4) understanding social codes of the host country.

a. Culture motivation

Before foreign students came to Japan, they realized that Japan has an original culture that would have motivated them also. The interviewees reported, “I was highly motivated to come to Japan.” “I came to study the academic subject more than to understand the culture, but on the way, I feel more motivated due to Japanese particular behaviour (always smiling, extremely kind, just never angry...)”. These are because of Japanese codes called *Aisowarai*, *Honne* and *Tatemaie*.

b. Multicultural networks

The interviewees reported, “Learning culture from different countries was one of my goals to become a global citizen, I could do it in Japan.” “My multicultural network helped me to understand some social rules from different countries, and we could talk in English which is not the native language for any of my multicultural friends, this reduces my pressure in the language, and we felt comfortable.” “I experienced initial difficulty because I did not know much about the country. I had read about Japan in books, but I had not lived in Japan, later I could understand that Japan has special cultural, academic and social codes that would be useful in my whole life.” Regarding previous descriptions of multicultural networks, the respondents show a positive point for their daily life satisfaction as a foreign student in Japan.

c. Japanese language

Studies were completed in English, which is not their native language nor is it the native language for Japanese people. The interviewees reported, “Understanding the language is key to being successful in any countries, but I needed the Japanese language only for specific things as shopping.” “The language was difficult to learn. I only knew the basics of *hiragana* and *Katakana* (*Japanese alphabet*), and the procedures were difficult, but my university tutors in charge of me and professors helped me.” “At the hospital there were people who helped me, find an apartment, buy a cell phone and so on. There was camaraderie and they invited me to their parties as well. You do not feel culture shock because they help you, and they try to make your transition less traumatic.” The *Monbukagakusho* grantees receive the lessons in English, which is not the native language of their Japanese teachers either. Therefore, the pressure of the language is not so complicated, but they need to use the basic Japanese language for daily life communication.

d. Japanese Social codes

In Japan, unlike other countries, the social and academic rules are unique, there are so-called Japanese social codes that, in order to be understood, must be lived in Japan, so I will describe the experiences of Peruvian students in Japan. The interviewees reported, “I listened that respect, discipline, responsibility and humility are more important than intelligence. So, I wanted to know how it is.” “My personal life has benefitted in Japan from my Japanese colleagues’ courtesy and collective mentality, which I did not understand at first.” “I am currently comfortable at the laboratory; I am doing what I expected to do.” “Social changes were experienced after my arrival.” “If you do not know anything about Japanese culture, first, you isolate yourself. But then you understand that it would be important to learn about your life.” “Work in collaboration is one Japanese characteristic that I learned” “Work for the benefit of the group more than individual success is the key to improve your nation.” “I did not like the concepts of *Tatemaie* and *Honne* very much, as it can be very difficult to understand Japanese people because they do not show what they think. Sometimes I thought that they wanted to say no but did not. I later processed this and can now understand my colleagues better.” “When I was a research student, I liked to ask questions, and at first, they did not tell me the answer until the professor told me. In Perú, medicine is based on evidence and not on hierarchies or experience. Here, the emphasis on the hierarchy is sometimes correct, but not always.” Another code is called *Omoiyari* which means: Not engaging in inappropriate actions

“For example, even if you speak only a little Japanese, they will say “You speak Japanese very well.” “Sometimes their compliments sound somewhat sarcastic, and they do not sound sincere to us Latinos. They tell

you at every moment, it's really about *Omoiyari*.”

Honne and *Tatemaie* which means inside and outside of your thinking, do not show outside your negative points. “They do not speak directly, and they do not tell you that something can be improved. They always tell you that it's okay.” Another Japanese code is called *Aisowarai*. Smiling is very important to demonstrate kindness to others. *One student reported* “Sometimes, when I say something serious or mention a mistake, Japanese people smile. At first, I thought they were not listening to me, but they actually do this because they do not want to show that they are worried and create a negative environment even when there is a problem.”

6. Conclusions

Regarding the first research question, the quantitative results of this study do not reveal significant effects of economic factors (a form of scholarship, scholarship satisfaction, scholarship amount, and part-time job) on Academic Satisfaction for Peruvian *Monbukagakusho* students. However, the type of scholarship received shapes student's Daily Satisfaction in Japan even when the scholarship earned provides less funding than other scholarships. Students working in a shared international research laboratory noted a positive effect on their levels of Daily Life Satisfaction because such involvement rendered them independent in their academic and social lives in Japan because outside of the international lab, students need to understand Japanese social and academic rules, as the interviewees explained. Having an interest in Japanese culture can have a positive effect on Daily Satisfaction with life in Japan. As some students corroborated it in the qualitative results (interviewees). On the other hand, difficulty with language barriers constituted a limitation to Academic Satisfaction for Peruvian *Monbukagakusho* scholars. But learning basic Japanese for communication would be enough, according to the qualitative results.

For the second research question, a strong correlation was found between “Daily Life Satisfaction” and “Academic Satisfaction.” To enhance levels of satisfaction among Peruvian *Monbukagakusho* scholars, one of these two variables could be initially addressed.

According to the third research question, the interviewers reported many experiences regarding satisfaction in their academic and daily life. Then, open coding, axial coding and selecting coding of data analysis figure out two main categories: (1) Pursue academic goals for satisfaction: motivation for academic goals and understanding new academic rules and skills from the host country as Japanese codes. It is important for foreign scholars to understand Japan's uniqueness social and academic codes as the qualitative result described. (a) *Cohai - Sempai* relationships. The terms *sempai*(first) and *cohai* (second) mean the hierarchy of respect that exists in Japan between the individual who has more experience and the one who has less experience without considering age. Therefore, considering the academic experience is relevant, the *sempai* is greater than *cohai*. (b) *Omoiyari* refers to not engaging in inappropriate actions. (c) *Honne* and *Tatemaie* which means inside and outside of your thinking, do not show outside your negative points. Another Japanese code is called (d) *Aisowarai*. Smiling is very important to demonstrate kindness to others. The second main category; (2) Self-taught and independence for a satisfactory life as a foreign student. The interviewee's outcome developed four important categories for obtaining satisfaction in their daily life as an international scholar; (a) motivation to understand the host culture, (b) developing a multicultural network, (c) basic Japanese language and (d) understanding social codes of the host country.

Based on this study's results, I recommend that more research is required in assessing other Japanese social codes experienced by international students in Japan.

References

- Chirkov, V., Vansteenkiste, M., Tao, R., & Lynch, M. (2007). The role of self-determined motivation and goals for study abroad in the adaptation of international students. *International Journal of Intercultural Relations*, 31(2), 199-222. <https://doi.org/10.1016/j.ijintrel.2006.03.002>
- Hicks, J. (1988). *Studies on the Adjustment of Foreign Students in Japan: With focus on Interpersonal Relations* (Doctoral Dissertation). Hiroshima University, Hiroshima.
- Hill, C. E., Knox, S., Thompson, B. J., Nutt W. E., Hess, S. A., & Ladany, N. (2005). Consensual Qualitative Research: An update. *Journal of Counseling Psychology*, 52(2), 196-205. <https://dx.doi.org/10.1037/0022-0167.52.2.196>
- Horne, V., Lin, S., Anson, M., & Jacobson, W. (2018). Students Engagement, Satisfaction, and Belonging of International Undergraduates at U.S. Research Universities. *Journal of International Students Engagement*, 8, 351-374. <https://doi.org/10.5281/zenodo.1134313>

- Hsu, C. (2011). *Factors Influencing International Students' Academic and Sociocultural Transition in an Increasingly Globalized Society* (Doctoral Dissertation). 1-154. Available from ProQuest LLC. (UMI No. 3455443)
- Lagones, J. (2015). Challenges of Nikkei Peruvian Second Generation in Japan: An Overview of Their Employment Status after the Lehman Shock. *Asian Social Science*, 11(26), 267-280. <https://dx.doi.org/10.5539/ass.v11n26p267>
- Lagones, J. (2016). Socioeconomic Characteristics of First-Generation Nikkei Peruvians Who Remained in Japan During and After Lehman Shock (2009-2014). *Forum of International Development Studies*, 47(1), 1-19.
- Li, S., & Zizzi, S. (2018). A Case Study of International Students Social Adjustment, Friendship Development, and Physical Activity. *Journal of International Student*, 8, 389-408. <https://doi.org/10.5281/zenodo.1134317>
- Meho, L. (2006). E-Mail Interviewing in Qualitative Research: A Methodological Discussion. *Journal of the American Society for Information Science and Technology*, 57(10). <https://doi.org/10.1002/asi.20416>
- Minister of Education Culture, Sports, Science and Technology Japan (MEXT). (2018). *About the number of scholarship program*. Retrieved from http://www.mext.go.jp/a_menu/koutou/ryugaku/1338568.htm
- Ministry of Education, Culture, Sports, Science and Technology (MEXT). (2018). *International students*. Retrieved from <http://www.MEXT.go.jp/en/News/topics/detail/sdetail/1372647.htm>
- Newsome, I. (2016). International Students Cultural and Social Experiences in a British University: "Such a hard life is here". *Journal of International Students*, 6(1), 195-215.
- Nilsson, P. (2015). Life Satisfaction among Outbound Students in Northern Sweden. *World Journal of Education*, 5(4), 87-92. <https://dx.doi.org/10.5430/wje.v5n4p87>
- Tamaoka, K., Ninomiya, A., & Nakaya, A. (2003). What Makes International Students Satisfied with a Japanese University. *Asia Pacific Education Review*, 4(2), 119-128.
- Tseng, W.-C., & Newton, F. (2002). International students' strategies for well-being. *College Student Journal*, 36(4), 591.
- UNESCO, (2018). *Global Education Monitoring Report Summary 2019: Migration, displacement and education: Building bridges, not walls*. Paris, UNESCO.
- Vasilopoulos, G. (2016). A Critical Review of International Students' Adjustment Research from a Deleuzian Perspective. *Journal of International Students*, 6(1), 283-307.
- Wu, H., Garza, E., & Guzman, N. (2015). International Students Challenge and Adjustment College. *Education Research International*, 1-9. <https://dx.doi.org/10.1155/2015/202753>
- Yamamoto, T. (1986). An environmental psychological study of adjustment in a cross-cultural environment transition. *Report of a Ministry of Education Grant, General Research Class B*.
- Yan, L., & Pei, S. (2018). "Home Away from Home?" How International Students Handle Difficult and Negative Experiences in American Higher Education. *Journal of International Students*, 8(1), 453-472. <https://dx.doi.org/10.5281/zenodo.1134338>

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Factors Influencing ASEAN and International Students of Higher Education Programs in Thailand

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Abstract

This study aims to understand the factors affecting graduate study choices of ASEAN and international students in Thailand. Quantitative and qualitative methods were applied in this study. The result showed that majority of international students between 2013 - 2015 were Chinese while among the ASEAN, students from Myanmar, Cambodia, and Laos were the highest. Among 42 factors, the most influential factor was quality of teachers who influence the selection by international students and ASEAN students significantly at the 0.05 level. International students place an emphasis on politics and security, while ASEAN students focus on future career prospects after graduation. The development of Thailand's competitiveness as an education hub in ASEAN is also possible. Thailand has the knowledge that is needed to enhance developing countries. It is recognized internationally for agriculture, public health, and education.

Keywords: education hub, ASEAN community, international program, education policy, factor influencing

1. Introduction

Education also promotes innovation and technology that is fundamental to the economic development of the country.

The Association of Southeast Asian Nations, or ASEAN, was first established in 1967 with aims and purposes to promote active collaboration and mutual assistance on matters of common interest in the economic, social, cultural, agriculture and industries, scientific and transport spheres and to raise the living standards of their peoples (Ministry of Foreign Affairs, 2014). Today, there are ten Member States of ASEAN. There are many countries that have set strategic plans aiming to develop an Association of Southeast Asian Nations (ASEAN) regional education hub. Singapore started their strategic plan in 2002, aiming to attract 150,000 international students by 2015 and to have 10 world-class educational institutes open in Singapore within 10 years. At the same time, Malaysia was planning to become a regional hub for international higher education and to have 100,000 international students by 2010. There were 13,617 international students studying in international programs in Thailand in 2014. Asian countries that are not ASEAN countries accounted for 7,006 students or 51.45%, followed by ASEAN countries with 4,896 students or 37%, and 697 students or 5.12% from European countries. In contrast, a group of countries with the lowest number of international students studying in Thailand was Australia, which had 52 students or 0.38 %. (Institute of International Education, 2016; UNESCO Institute of Statistics, 2016). Currently, educational competition, especially at the graduate level, is quite high. When the ASEAN Community opens, it will stimulate the competition in educational management for both domestic and international institutions. This will put pressure on higher education institutions in Thailand to enhance their higher educational quality. Thailand has continually developed higher education that is teaching international programs, especially at the graduate level in order to have higher education institutions adapt to meet the needs of ASEAN and international students. Students from different countries may have different expectations and selection criteria (Shah & Laino, 2005; Shanka, Quintal, & Taylor, 2005). There are a few research articles studied international programs in Business school and administration among local and international students in Thailand (Kashif & Cheewakrakokbit, 2018; Pinkao & Speece, 2008). No studies focusing on international program as an overall and comparing between ASEAN and international students. Thus, this study explored the factors affecting the selection of international programs at the graduate level at academic institutions in Thailand, in order to increase the competitiveness and prepare for improvements internationally to the academic

institutions of Thailand.

1.1 Academic Quality of Academic Institutions in Asian Countries and ASEAN Countries

The rankings are often heavily criticized: because of their statistical inaccuracy, because of the measures chosen to represent academic quality, or because of their expected negative impact on the overall performance of universities. But recent research suggests that well designed organizational report cards can sometimes serve as effective instruments for public accountability (Dill & Soo, 2005)

The overall situation about academic quality in Asian and ASEAN countries, ASEAN and international students transfer, the target countries, and factor influencing the selection of higher education institutions were discussed in this section.

From data unveiled in 2017, the top 100 universities in the world include 50 United States (US) universities, eight universities from the United Kingdom, six universities from Australia, four each from Switzerland, Canada, and Japan, three each from Germany, France, the Netherlands, and Sweden, two each from China, Belgium, and Israel, and one each from Denmark, Norway, Finland, Singapore, and Russia. Considering Asian countries and ASEAN countries, the country that was ranked in all three institutions and had the highest rank was Japan, followed by China and South Korea, respectively. For ASEAN countries, Singapore was ranked the highest by all three institutions, followed by Malaysia and Thailand, respectively (Academic Ranking of World Universities, 2016; Austin & Shen, 2016). The data is shown in Table 1.

Table 1. The ranking of educational institutions in Asian and ASEAN community in 2017

Country	ARWU	ARWU	QS-WUR	THE-WUR
	Top 100	Top 500	Top 500	Top 400
China	1	52	82	41
Hongkong	-	-	7	6
India	-	1	23	3
Indonesia	-	-	11	1
Japan	4	12	74	37
South Korea	-	11	54	24
Malaysia	-	3	21	4
Pakistan	-	-	10	2
Philippines	-	-	8	-
Singapore	1	1	3	2
Thailand	-	-	13	7
Vietnam	-	-	5	

1.2 ASEAN and International Students transfer to Asia-Pacific Countries

In the preparation of Thailand to enter the ASEAN Socio-Cultural Community, the Office of Higher Education Commission conducted a research study about the strategy needed to prepare for the ASEAN Community in 2015 by recognizing the impact of integration. It is an issue that the 15-year Higher Education Framework No. 2 (2008-2022) emphasizes as a direct factor that affects higher education management because the movement of people, students, and educational personnel will be more convenient and the liberalization of trade in education services will result in a shift of knowledge, language, and culture among the ASEAN countries. Higher education organizations are inevitably able to adapt themselves to merge into the ASEAN Community (Bureau of International Cooperation Strategy, 2016).

There were 13,617 foreign students who studied in higher education institutions in Thailand in 2014. The top three countries with the highest number of students studying in Thailand were China, Myanmar, and Cambodia, accounting for 17.69%, 6.30%, and 4.60%, respectively, as shown in Table 2.

Table 2. The top 10 countries with the number of students who studied higher education in Thailand

International		ASEAN	
Countries	Units	Countries	Units
China	4,544	Myanmar	1,620
Myanmar	1,620	Cambodia	1,182
Cambodia	1,182	Laos	793

Laos	793	Vietnam	748
Vietnam	748	Indonesia	274
United State	416	Philippines	148
South Korea	377	Malaysia	100
India	313	Timor-Leste	74
Bhutan	309	Singapore	30
Bangladesh	289	Brunei	1
Total	13,617	Total	4,970

1.3 The Target Countries ASEAN Students Choose for Studying Abroad

The number of international students and scholars studying and working in a culture beyond their own has significantly increased in past few years (Bista, 2012). In some countries, universities generate substantial incomes from foreign students (Wilkinson et al., 2008).

Based on the study about the most desired countries, students in Singapore, the Philippines, and Indonesia are the most interested in Australia, followed by the UK, which students in Brunei and Malaysia give priority in selecting for further study. Next is the US in which students from Thailand and Vietnam are most interested. Thailand is also a target country according to students from Myanmar and Cambodia. Details are shown in Table 3.

Table 3. The top five target countries ASEAN students aiming for studying abroad

Counties	Interested countries (Outbound)	Units	Interested countries (Inbound)	Units
Singapore	na.	na.	Australia	8,759
			United Kingdom	6,774
			United States of America	4,678
			Malaysia	960
			Canada	399
Total		48,938		24,135
Malaysia	Bangladesh	6,534	United Kingdom	15,583
	Indonesia	5,700	Australia	14,967
	China	4,956	United States of America	7,858
	Nigeria	4,943	Egypt	5,067
	Iran	3,293	Jordan	3,071
Total		60,244		64,480
Thailand	China	4,544	United States of America	7,052
	Myanmar	1,620	United Kingdom	6,246
	Cambodia	1,182	Australia	4,751
	Laos	793	Japan	2,256
	Vietnam	748	Egypt	1,958
Total		12,274		28,339
Vietnam	Laos	1,772	United States of America	19,336
	Cambodia	381	Australia	13,147
	China	281	Japan	6,071
	South Korea	276	France	5,284
	Mongolia	33	United Kingdom	4,236
Total		2,874		63,703
Philippines	na.	na.	Australia	4,432
			United States of America	3,037
			New Zealand	1,105
			United Kingdom	698
			Saudi Arabia	693
Total				14,696

Counties	Interested countries (Outbound)	Units	Interested countries (Inbound)	Units
Indonesia	na.	na.	Australia	10,168
			United States of America	8,922
			Malaysia	5,700
			Japan	2,387
			Egypt	2,262
Total				41,919
Myanmar	na.	na.	Thailand	1,620
			United States of America	1,209
			Japan	1,193
			Australia	775
			Russia	511
Total				7,450
Laos	Vietnam	167	Vietnam	1,772
	China	91	Thailand	793
	South Korea	28	Australia	207
	Cambodia	17	Japan	203
	Japan	10	France	69
Total		315		3,460
Cambodia	na	na	Thailand	1,182
			Australia	784
			France	611
			United States of America	527
			Vietnam	381
Total				5,275
Brunei	Malaysia	129	United Kingdom	1,932
	Indonesia	59	Malaysia	548
	Pakistan	27	Australia	477
	Bangladesh	26	Egypt	124
	Thailand	26	Saudi Arabia	87
Total		529		3,488

1.4 Factors Affecting the Selection of Higher Education Institutions of Thailand

The related issues of factors affecting the selection of higher education institutions in Thailand were combined from research results, articles, and academic journals. Thus, the factors used in the study are based on the IPO model. There are 42 factors used in the study, of which are 19 issues have four inputs, 17 issues of seven processes, and six issues of two outputs. Details are shown in Table 4.

Table 4. The factors examined in this study

	Factors	References
Input factor		
Lecturer	Qualification and teaching experience	(Maclorin, 2011)
	Research experience	(Maclorin, 2011; Saengawut, Srungboonmee, & Bumrungrkit, 2016)
	Reliability and reputation	(Saengawut et al., 2016)
	Academic position in university	
	Portion of Thai professors and international professors	(Department of International Trade Promotion, 2014)
	Lecturer advice	
	Academic quality and worldwide recognition	(Pachaneebon, 2014)

	Factors	References
Institution	Academic Ranking of World Universities	(Hobsons EMEA, 2014; Intawa & Sutamaung, 2013; Maclorin, 2011; Saengawut et al., 2016; Waichalad & To-im, 2016)
	Image and Prestige of the university	(Intawa & Sutamaung, 2013; Maclorin, 2011)
	Location of country	(Pachaneebon, 2014)
	Facilities that support foreign student e.g. (Dome, SSU shutter bus)	(Department of International Trade Promotion, 2014)
	Facility, location, atmosphere that support education	(Wattanasiri, 2010)
Curriculum	Diversities of subjects and courses in university	
	Clear a course description	(Intawa & Sutamaung, 2013; Maclorin, 2011; Pratcharachoenpong, 2011)
	Be able to transfer credits between universities	(Department of International Trade Promotion, 2014; Pratcharachoenpong, 2011)
	Up-to-date course content	(Saengawut et al., 2016)
	Future employment prospects after graduation	(Wattanasiri, 2010)
	An opportunity to participate in the dual and exchange degree programs	
Cost	Reasonable tuition fee	(Maclorin, 2011; Pachaneebon, 2014; Pratcharachoenpong, 2011)
	Study abroad scholarships	
	Cost of living to study abroad	(Department of International Trade Promotion, 2014)
Learning processes	Up-to-date and relevant learning process encouraging collaborative learning	(Mavondo, Tsarenko, & Gabbott, 2004; Pratcharachoenpong, 2011)
	International academic field trips	
	Corporate academic partnerships between academic and industry	(Wattanasiri, 2010)
	Online course and/or distance learning	
Information and Marketing	Academic advertisement	(Intawa & Sutamaung, 2013; Pachaneebon, 2014)
	Course descriptions and information clearly explained on media (website, facebook, youtube) with various languages	(Boonchutima, 2010; Chipasit, 2008; Pratcharachoenpong, 2011; Waichalad & To-im, 2016)
Cultural aspect	Learn about my own cultural roots	(Hobsons EMEA, 2014)
	Learn to live in cultural diversity	(Lewis, 2016; Miller-Perrin & Thompson, 2014)
Connection and Interaction	Social networking with friends from worldwide perception of the country	(Lewis, 2016)
Service	Educational services for foreign students	(Pachaneebon, 2014)
Politic and Security	Safety on university within and around the university	(Hobsons EMEA, 2014; Pratcharachoenpong, 2011)
	Political stability	(Hobsons EMEA, 2014)
Laws and Regulation	Immigration policy	(Hobsons EMEA, 2014)
	Easy to apply visa	
Academic Quality	International publication	(Wattanasiri, 2010)
Opportunity	Opportunity in external higher education abroad	(Hobsons EMEA, 2014; Pratcharachoenpong, 2011)
Future Employment	Opportunity to get employment in destination country	(Wattanasiri, 2010)
	Fulfill major requirements/ Personal fulfillment	(Lewis, 2016)

From literature reviews, all related factors were summarized in Table 4. From Table 4, the research framework of this study can be displayed in Figure 1.

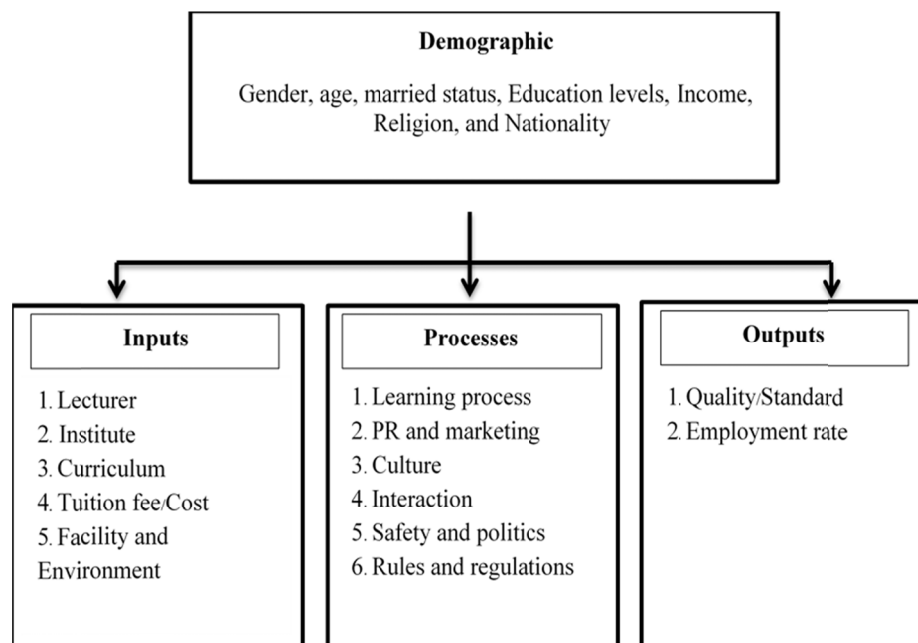


Figure 1. Research framework

2. Method

To understand the factor influencing ASEAN and International Students of Higher Education Programs in Thailand. Quantitative and qualitative methods were applied in this study.

2.1 Sampling and Population

In the sampling, the sample size was based on continents of international students studying at higher education institutions in Thailand (public and private universities) using a quota sampling method. Once the sample size is reached, the quota sampling is performed according to the continents in order to collect a number of samples from international students from that continent as shown in Table 5.

Table 5. Student sample size from each continent

Continental	Units of international student (Persons)	Units of population (Persons)
America	491	14
Europe	697	20
Asia (not including ASEAN)	7,029	201
Africa	391	11
ASEAN	4,896	140
Australia and Oceania	113	3
Total	13,617	389

After creating and developing tools used in research, the study was conducted, and a questionnaire was used according to the IPO model. The research team studied the quality of the tools used in the investigation. The tools were tested for accuracy by consulting with five experts and advisors in related fields. It was found that the IOC value was higher than 0.5 for all items. In addition to the data collected from the questionnaire, the researchers conducted in-depth interviews by specifying the target group and key informants by interviewing those responsible for higher education institutions of international students and/or those involved using purposive sampling and snowball sampling as follows: (1) the Office of Higher Education Commission, (2) the Office for National Education Standards and Quality Assessment, (3) the Graduate School, Chulalongkorn University, (4) International College of National Institute of Development Administration, and (5) Thailand International Cooperation Agency, Ministry of Foreign Affairs, by using structured interviews.

2.2 Data Analysis

Descriptive statistics were analyzed using frequency and percentage to present the general characteristic of the samples including gender, age, hometown, housing, educational funding source, and average. Then, the

hypothesis test was presented based on the conceptual framework. In addition, an analysis of basic inferential statistics such as mean and variance was conducted. The Likert scale was used to determine the level of factors and comparison of differences between groups was conducted using the independent sample T-test, one-way ANOVA, and Multiple Comparisons-Tukey's HSD at 0.05 significance level. The factors that were analyzed included demographic factors and dependent variables to determine demographic factors, input factors, processes, and outputs that affect the dependent variables. In addition, the results of in-depth interviews were used in the content analysis to synthesize and analyze data in a reliable manner according to the researcher's issues.

Descriptive statistics were analyzed using frequency and percentage to present the general characteristic of the samples including gender, age, hometown, housing, educational funding source, and average. Then, the hypothesis test was presented based on the conceptual framework. In addition, an analysis of basic inferential statistics such as mean and variance was conducted. The Likert scale was used to determine the level of factors and comparison of differences between groups was conducted using the independent sample T-test, one-way ANOVA, and Multiple Comparisons-Tukey's HSD at 0.05 significance level. The factors that were analyzed included demographic factors and dependent variables to determine demographic factors, input factors, processes, and outputs that affect the dependent variables. In addition, the results of in-depth interviews were used in the content analysis to synthesize and analyze data in a reliable manner according to the researcher's issues.

3. Results

From the data collection using questionnaires from random sampling, the sample size was based on continents of international students studying in Thailand's higher education institutions using a quota sampling method. After obtaining the sample size, quota sampling according to continents selected 389 people from a total of 406 people as described in Table 6.

Table 6. Demographics of respondents

Factor	Description	Units	Percent
Gender	Male	227	55.90
	Female	179	44.10
Age	Under 25	75	18.50
	25 – 29	161	39.70
	30 – 39	136	33.50
	40 – 49	31	7.60
	Over 50	3	0.7
	America	11	2.80
	Europe	24	6.00
Continents	Asia (not including ASEAN)	156	39.10
	Africa	41	10.30
	ASEAN	163	40.90
	Australia and Oceania	4	1.00
	Less than \$25K (£15K)	179	44.90
Average household income (per year)	\$25K — \$50K (£15K-£31K)	120	30.10
	\$50K — \$75K (£31K-£46K)	52	13.00
	\$75K — \$100K (£46K-£61K)	11	2.80
	\$100K — \$150K (£61K-£92K)	18	4.50
	Over \$150K (£92K+)	19	4.80

3.1 Hypothesis Testing

The study found that different status, age, continent, income level, education level, religion, and ethnicity of international students influenced the input factors, processes, and outputs that affected the decision to study international programs at the graduate level at different Thailand academic institutions. There were a total of 42 different factors that can be divided into 19 issues of four inputs, 17 issues of seven processes, and six issues of two outputs. The study found that:

The status of different international students influences input factors such as teacher qualification, educational

institution, and cost budgets, significantly affecting the decision to choose an international course at the graduate level at an academic institution in Thailand at the 0.05 level, but is not significantly different in the process, and output at 0.05 level.

The age range of different international students affects the process in the teaching process issues and the laws and regulations of Thailand significantly affects the decision to study at an international program at the graduate level in academic institutions in Thailand at the 0.05 level, but is not significantly different in input and output factors and at 0.05 level.

Different continents of international students affect the input factor in terms of cost and process in terms of learning about life in various cultures in Thailand, affecting the decision to study at an international program at the graduate level in Thailand significantly different at the 0.05 level, but is not significantly different for the output at the 0.05 level.

The different income level of foreign students has a significant effect on input factor in terms of teachers and academic institutions and the output in terms of career after graduation for the fulfillment of the needs of the individual and career paths that affect the decision to study at an international program at the graduate level at the academic institutions of Thailand significantly different at the 0.05 level, but were not significantly different for the process at the 0.05 level.

The different levels of education of foreign students affect the input in terms of teacher, academic institution, and cost budget, the process in terms of service and facilities for international students, atmosphere, and environment of the country (where the institution is located), and services to international students studying at the academic institutions. The process of teaching and learning at an academic institution in Thailand, marketing and public relations, information on the issue of clear information through online channels, Thailand's laws and regulations regarding difficulties in visas and immigration policies of international students and the output on their ability to perform in their career after graduation, the issue of fulfilling the needs of the individual and career paths that affect the decision to study at an international graduate program at the academic institutions in Thailand are significantly different at the 0.05 level.

Different religions of foreign students influenced the input in terms of curricular activities, academic institution, and cost budget and all factors of the process in this study and the output in terms of quality of education and future careers that affect the decision to study at an international graduate program at the academic institutions in Thailand significantly different at the 0.05 level.

The difference in the ethnicity of foreign students affected input in terms of the academic institutions in Thailand for the quality of the institutions and international recognition (i.e., did the curriculum have a clear explanation and is modern in the current situation). Atmospheric process and environment of the country where the institution is located and the modern teaching, encouragement of the exchange of ideas in the classroom, learning to live in a diverse culture, getting to know new friends, creating a network abroad and internal security and the surrounding areas, academic institution and the output in terms of fulfillment of the needs of the individual and career paths that affect the decision to study at an international graduate program at the academic institutions in Thailand were significantly different at the 0.05 level as shown in Table A1.

In addition, from the classification of factors affecting the selection of an international graduate program at the academic institutions in Thailand by the mean of the answers from the questionnaire, the study indicated that the most important was the teacher with a mean of 4.02, followed by future career with a mean of 3.87, followed by interaction and networking abroad with a mean of 3.86. On the other hand, the three least significant factors were the learning process and public relations and marketing with a mean of 3.65 and the lowest was budget with a mean of 3.58. For the minor issues, the educational background and teacher's teaching experience had had the greatest impact with a mean of 4.10, followed by the teacher's research experience with a mean of 4.04 and the skill enhancement factor and the benefit of a career in the future with a mean of 3.96, respectively. On the other hand, the least decision-making factor is the academic institution/university factor in terms of ranking of institutions worldwide with a mean of 3.52, followed by the budget and ability to find work while studying with a mean of 3.46 and the learning process factor, distance learning, and/or online learning had the least effect on decision making with a mean of 3.33, as shown in Table 7.

Table 7. The average score of international and ASEAN students

Factors	International			ASEAN		
	Average	SD	Rank	Average	SD	Rank
Lecturer	4.12	0.84	1	4.02	0.83	1

Institute/University	3.85	0.88	7	3.79	0.82	6
Curriculum	3.88	0.88	5	3.78	0.88	7
Budget	3.66	1.01	12	3.58	0.98	13
Service and facility Convenient	3.73	0.95	10	3.68	0.90	10
Learning processes	3.70	0.96	11	3.65	0.97	11
PR and marketing	3.65	0.96	13	3.65	0.98	11
Culture	3.84	0.91	8	3.73	0.91	8
Connection and Interaction	3.97	0.90	3	3.86	0.90	3
Politics and Safety	3.98	0.90	2	3.83	0.98	4
Laws and Regulation	3.79	0.96	9	3.71	0.88	9
Academic Quality	3.88	0.84	5	3.83	0.78	4
Future Employment	3.91	0.87	4	3.87	0.78	2

3.2 Development of Thailand to be a Regional Education Hub

Deputy Education Minister General Surachet Chaiwong said that the decision to set up the ASEAN Coordinating Center for Education had been made at the recent meeting of the Ministry of Education's Committee to Prepare for the ASEAN Community and Operations After 2015. The project to develop Thailand as the regional education hub aims to attract international students and improve the quality of education management to international standards. It will also prepare for the educational liberalization policy and for accommodating more international students (Office of the Prime Minister, 2015).

In-depth interviews with key informants, focusing on the development of Thailand as a regional education hub, was the subject of government policy 20 years ago during the administration of Prime Minister Thaksin Shinawatra, starting with the promotion of the internationalization of higher education institutions. The Ministry of Education, via the Office of Higher Education Commission (OHEC), has cooperated to develop the curriculum, joint courses or two-degree programs with international institutions and promoting teacher exchange and students. In addition to such issues, the Office of the National Economic and Social Development Board tried to promote such matters but the agency had no direct authority to develop this issue and in 1990, the World Trade Organization (WTO) classified educational services as a product and service, thus there was worldwide promotion of the opening of the global education market. Thailand was one of the countries that had the concept of business development in line with the world. A meeting was held between the institutions of Thailand on the issue "Should educational business be liberalized or barred?" The meeting outcome suggested that educational business should be barred because Thai academic institutions were not ready and they were afraid that they could not compete with foreign institutions. The resolution was not in favor of opening the market in this business (Office of National Education Standards and Quality Assessment (Public Organization), 2017). For this reason, the development of Thailand as a regional education hub was unsuccessful and not according to the policy guidelines set by the government.

Thailand's ability to develop into a regional education hub, at present, with 10 ASEAN member countries (note that the Democratic Republic of Timor-Leste is not yet certified as a member country) is under discussion and when the meetings were held, the country always attended. Considering the structure of the education system of each country, it is found that Myanmar and the Philippines have a different education system compared to that of the other member countries. Due to this reason, students from these countries have limited access to higher education institutions in member countries such as Thailand. Moreover, from the ranking of universities by international institutions, Thailand has the capability to compete with the member countries. The countries with a better ranking of quality of education than Thailand are Singapore and Malaysia. If you look at this issue, Thailand has the capacity to develop into a regional education hub because even though Singapore has quality education and is more well-known than Thailand, Singapore has limited space for the number of students it can accept and educational qualifications. For example, institutions from the US promote the teaching in Singapore but they are not accredited by government agencies. This is a risk that foreign students must consider when making their own choices.

Additionally, Singapore's private academic institutions are not accredited by the state. The degrees are certified by the quality of the institution. Their supporting budget for that issue is higher than Thailand's budget. The country's regulations or institutions facilitate the recruitment of potential instructors from leading institutions to become regular teachers in each institution. However, with space constraints and a variety of knowledge that may not meet the needs of developing countries, it is a risk for international students. As a result, there is a limit

to the development to become a regional education hub in the ASEAN region. A country that has had the capacity to develop as an education hub close to Thailand is Malaysia. It is a country with few restrictions and the quality of education is currently better than Thailand. There are more academic institutions in Malaysia than in Thailand. Curricula are in English and teachers can teach in English like Singapore, but the quality of education in Malaysia may be poorer. Their culture and religion may also be a limiting factor in the development of such matters.

In this regard, the development of Thailand's competitiveness and potential for development as an education hub in ASEAN is also possible. Thailand has the knowledge that is needed to enhance developing countries, in particular, for neighboring countries such as Laos, Myanmar, Cambodia, and Vietnam. Thailand has developed a knowledge base with high potential. It is recognized internationally for agriculture, public health, and education. The academic institutions of the countries teaching these courses are well-respected internationally as well.

Thus, the development of Thailand as a regional education hub in the ASEAN region, should focus on its strengths such as developing an agriculture education hub or a public health education hub. The operation will be set up as a separate educational hub from the academic institutions of Thailand. This makes it easier to make decisions and have access to science and knowledge in such matters. A good example is the Institute of Dermatology, a successful collaboration between Thailand and Japan. At present, Thailand's educational institutions have adapted to such issues. The institutions are collaborating with the Thailand International Cooperation Agency to set up graduate programs according to its framework. In addition, Thai academic institutions are also in need of adjustment. For example, Chulalongkorn University is trying to adjust its curriculum into English. Currently, Chulalongkorn University does not have an international college. However, there are international programs in each team, while other leading universities in Thailand such as Mahidol University, Thammasat University, and the National Institute of Development Administration have adapted to facilitate the study of foreign students. In addition, the private academic institutions of Thailand are developing their competitiveness and accepting more international students.

A description of the advantages and developmental constraints based on the interviews with five related agencies are described in Table 8.

Table 8. Strengths and weaknesses towards the development of an educational hub in ASEAN

	Strengths	Weaknesses
Singapore	1. Quality of education that is internationally recognition 2. Small number of institutes thus easy to control the quality and research grants 3. Strong interaction between industrial sectors and education institutes 4. Strong support from government policy 5. Government provides enough budget e.g. budget for recruiting well-known professors, research grants 6. Support world-class institutes/universities to open in the country 7. English courses 8. Not too many institutes/universities thus the quality can be controlled 9. University branches located in other regions 10. Many scholarships provided for international students	1. No quality assurance system 2. No very strong quality assurance in comparison to quality assurance in Thailand 3. Many courses are provided in business administration, management which are not suitable for the knowledge needs for developing countries 4. Limited land areas
Malaysia	1. Strong support from government policy 2. Support world-class institute/university to open in the country. Also, support institute/university to study internal context and investment in foreign countries 3. English courses 4. Many scholarships provided for international students	Not equal quality in all institutes
Vietnam	-	The quality of higher education is less internationally recognition than that of Thailand.
Indonesia	-	The quality of higher education is less international recognition than that of Thailand

	Strengths	Weaknesses
Philippines	-	Educational structure is different from other countries and less international recognition
Myanmar	-	Educational structure is different from other countries and less international recognition

In summary, the success factors in the development of a regional education hub are the quality of teachers, researchers and academics. This is consistent with the quantitative results collected by the study of international students studying in Thailand. These factors are important and should be emphasized and have continuous development. This is followed by knowledge, education quality, and scholarship. The topic where Thailand has the potential to compete are agriculture, tropical medicine, and food security since developing countries pay attention to these issues. On the other hand, the least effective factor is cooperative project and development. From all the factors that have been collected from interviews with relevant agencies, the most significant factor for promoting and developing a regional education hub in ASEAN, focuses on the development of and expansion of international cooperation in the future.

4. Discussion

There were 13,617 international students studying in international programs in Thailand in 2016, with the largest number from Asian countries that are not ASEAN for 7,006 students, accounting for 51.45%, followed by ASEAN countries at 4,896 students or 37%, and 697 students from European countries or 5.12%. In contrast, countries with the lowest number of international students studying in Thailand is Australia with 52 students or 0.38%. The highest numbers of students from ASEAN countries studying in the international programs in Thailand in 2013-2015 were from Myanmar, Cambodia, and Laos, respectively. On the other hand, the two lowest numbers of students were from Singapore and Brunei. The academic institutions in Thailand have the potential to accommodate and be desired by international students. Most of the institutions are state-managed teaching a wide range of subjects. In addition, it was found that, in particular, Thailand has the potential to compete in is the science of agriculture, tropical medicine, and food security.

The study of the factors affecting the selection of international programs at the graduate level in academic institutions in Thailand found that teacher choice affects the decision of international students and ASEAN students, but the next rank is different for students in two groups. International students place an emphasis on politics and security, while ASEAN students focus on future career prospects after graduation. On the other hand, the two least important factors for both groups of students are the budget for further study in Thailand. This may be due to the fact that the cost of living and tuition fees in Thailand are not high for international students, but they may be high compared to neighboring countries such as Myanmar, Laos, and Cambodia. However, the reason for this is not very significant for the decision to choose Thailand as a target country for graduate study because culture and living life are similar to their original environment so it is easy to adjust. Some students are also supported by the Thai government.

The study found that the status, age, continent, income level, education level, religion, and ethnicity of different international students influenced input, process, and output factors that affect the decision to study in international programs. There are 42 different factors in selecting an international program at the graduate level in academic institutions in Thailand. They are four inputs of 19 issues, seven processes of 17 issues, and two outputs of six issues. The study found that different status, age, continent, income level, education level, religion, and ethnicity of international students have an impact on the input in terms of teachers, education background, teaching experience, and research, institution in terms of location, climate, and environment of the institution, modern teaching process, and discussion encouragement, the culture in terms of learning a variety of cultures, laws and regulations on immigration of foreign students, the fulfillment of the needs of the individual and the career has influenced the decision to study in the international program significantly at the 0.05 level. On the other hand, the factors that are not significantly different at the 0.05 level were the academic institutions in Thailand, proportion of Thai teachers versus foreign teachers, and the quality ranking of the institutions, instructional curriculum, ability to transfer credits between institutions, instructional process, cooperation between institutions and enterprises and distance education and/or online learning, the quality of education, the opportunity to study in higher education institutions, and opportunities to work abroad.

The results from in-depth interviews found that countries with competitive potential as educational centers in ASEAN are Singapore and Malaysia but both countries have the same development constraints as Thailand. It found that Singapore has restrictions on the qualifications of educational institutions in the country and the

quality of the assurance of education is not rigorous. Knowledge is not very diversified and many courses that focus on business and management do not meet the needs of developing countries. Most importantly, the space is limited and the ability to handle students is not enough to meet the needs. While in Malaysia there is a limit to the quality of education of academic institutions that are not good for all institutions. This is an important limitation. The development of Thailand's competitiveness and potential for development as an education hub in ASEAN is possible. Thailand has the knowledge that is needed for the development of developing countries. It is recognized internationally for agriculture, public health, and education. The educational institutions of the countries that are taught in these courses are well-respected internationally. There is a need to develop a specialized education hub or the education and knowledge hub that Thailand is highly competitive (Excellent Education Hub) and to adjust curriculum to be more international.

References

- Academic Ranking of World Universities. (2016). *Academic ranking of world universities 2016*. Retrieved from <http://www.shanghairanking.com/ARWU2016.html>
- Austin, L., & Shen, L. (2016). Factors influencing Chinese students' decisions to study in the United States. *Journal of International Students*, 6(3).
- Bista, K. (2012). [Review of the book] Who goes where and why: An overview and analysis of global educational mobility by Macready, C. & Tucker, C.]. *Journal of International Students*, 2(1).
- Boonchutima, S. (2010). Applicants' satisfaction with the international program website in Chulalongkorn university. *Journal of Public Relations and Advertising*, 3, 1-19.
- Bureau of International Cooperation Strategy. (2016). *Thailand's higher education strategy in preparation for ASEAN community*. Retrieved from <http://www.moe.go.th/moe/th/news/detail.php?NewsID=29058&Key=hotnews>
- Chipasit, K. (2008). Factors affecting the international higher education curriculum of 1st university students. *RMUTT Global Business and Economics Review*, 4, 11-20.
- Department of International Trade Promotion. (2014). *International education services*. Retrieved from http://www.ditp.go.th/contents_attach/85967/85967.pdf
- Dill, D. D., & Soo, M. (2005). Academic quality, league tables, and public policy: A cross-national analysis of university ranking systems. *Higher Education*, 49, 495-533. <https://doi.org/10.1007/s10734-004-1746-8>
- Hobsons EMEA. (2014). *Beyond the Data: Influencing International Student Decision Making*. Retrieved from https://www.hobsons.com/res/Whitepapers/23_Beyond_The_Data_Influencing_International_Student_Decision_Making.pdf
- Institute of International Education. (2016). *The world is the new classroom: Non-credit education abroad*. Retrieved from New York, USA: <https://www.iie.org/Research-and-Insights/Publications/The-World-is-the-New-Classroom-Non-Credit-Education-Abroad>
- Intawa, P., & Sutamaung, K. (2013). Factors affecting decision to study master degree abroad. *Journal of marketind and communication*, 1, 265-281.
- Kashif, M., & Cheewakrakokbit, P. (2018). Perceived service quality-loyalty path: A PAKSERV based investigation of international students enrolled in business schools in Thailand. *Journal of Marketing for Higher Education*, 28(1), 51-65. <https://doi.org/10.1080/08841241.2017.1402113>
- Lewis, W. (2016). Study abroad influencing factors: an investigation of socio-economic status, social, cultural, and personal factors. *Ursidae: The Undergraduate Research Journal at the University of Northern Colorado* 5(3), 57-73.
- Maclorin, H. (2011). *Factors influencing selection and attitude of foreign students studied in National Institute of Development Administration*. Retrieved from Bangkok: <http://202.44.72.18/home/images/pdf/hataire>
- Mavondo, F. T., Tsarenko, Y., & Gabbott, M. (2004). International and local student satisfaction: resources and capabilities perspective. *Journal of Marketing for Higher Education*, 14(1), 41-60. https://doi.org/10.1300/J050v14n01_03
- Miller-Perrin, C., & Thompson, D. (2014). Outcomes of global education: external and internal change associated with study abroad. *New Directions for Students Services*, 77-89. <https://doi.org/10.1002/ss.20093>
- Ministry of Foreign Affairs. (2014). *The ASEAN Community*. Retrieved from

- <http://www.mfa.go.th/asean/en/organize/62206-The-Birth-of-ASEAN.html>
- Office of Nation Education Standards and Quality Assessment (Public Organization) (2017). *Moving towards educational hub in ASEAN*.
- Office of the Prime Minister. (2015). *Government to Develop Thailand as an ASEAN Education Hub*. Retrieved from https://thailand.prd.go.th/ewt_news.php?nid=1976&filename=index
- Pachaneebon, P. (2014). *Factors affecting satisfaction of foreign students in Bangkok*. Retrieved from <https://prezi.com/7jg0oqx48w/presentation/>
- Pinkao, K., & Speece, M. (2008). Country image and expectations toward international programs in business administration among Thai students. *Journal of Marketing for Higher Education*, 11(2), 61-89. https://doi.org/10.1300/J050v11n02_04
- Pratcharachoenpong, T. (2011). *Factors affecting overseas students' decisions on advanced study in the international undergraduate program in Bangkok* (Master of Business). Rajamangala University of Technology Thanyaburi, Pathum Thani.
- Saengawut, V., Srungboonmee, T., & Bumrunkit, S. (2016). *Desirable characteristics of Bachelor of Economics International Program*. Retrieved from Khonkaen: <https://econoffice.kku.ac.th/upload/pupload/14702948711469589345Econpaper1.pdf>
- Shah, A., & Laino, H. (2005). Marketing a U.S. university to international students: which approach is best—standardization, adaptation, or contingency? An investigation of consumer needs in seven countries. *Journal of Marketing for Higher Education*, 16(1), 1-24. https://doi.org/10.1300/J050v16n01_01
- Shanka, T., Quintal, V., & Taylor, R. (2005). Factors Influencing International Students' Choice of an Education Destination—A Correspondence Analysis. *Journal of Marketing for Higher Education*, 15(2), 31-46. https://doi.org/10.1300/J050v15n02_02
- UNESCO Institute of Statistics. (2016). *Global flow of tertiary-level students*. Retrieved from <http://uis.unesco.org/en/uis-student-flow>.
- Waichalad, U., & To-im, J. (2016). Influencing factors for post-graduation study decision making of graduate students in faculty of environment and resource studies, Mahidol university. *Journal of graduate studies Valaya Alongkron Rajabhat University*, 10, 165-177.
- Wattanasiri, W. (2010). *Integrated marketing communicatetions in promoting Thai international higher education in the greater mekhong sub-region* (Doctoral). Dhurakij Pundit University, Bangkok.
- Wilkinson, J. W., Mahara, A., & Quester, P. G. (2008). Asian students: Their experiences and perceptions of Australian universities. *Journal of Marketing for Higher Education*, 7(3), 65-80. https://doi.org/10.1300/J050v07n03_05

Appendix A

3.1 Hypothesis Testing

The study found that different status, age, continent, income level, education level, religion, and ethnicity of international students influenced the input factors, processes, and outputs that affected the decision to study international programs at the graduate level at different Thailand academic institutions. There were a total of 42 different factors that can be divided into 19 issues of four inputs, 17 issues of seven processes, and six issues of two outputs. Table A1 showed the factors influencing the decision of international students to study in Thailand.

Table A1. Factors influencing the decision of international students to study in Thailand

Factor	Issues	Status	Age	Continent	Income	Education level	Religion	Nationality
Lecturer	Qualification and teaching experience	0.002			0.000	0.000		
	Research experience	0.003			0.000	0.001		
	Reliability and reputation	0.006				0.005		
Institution	Location of Institution	0.000			0.000	0.002	0.001	
	Portion of Thai professors and international professors							

	Academic quality and worldwide recognition		0.004		0.005
	Academic Ranking of World Universities				
	Image and Prestige of the university		0.002		
	Location of country		0.003		0.003
Curriculum	Diversities of subjects and courses in university			0.002	
	Clear a course description			0.005	0.003
	Be able to transfer credits between universities				
	Up-to-date course content			0.000	0.003
	Future employment prospects after graduation			0.002	
	An opportunity to participate in the dual and exchange degree programs			0.001	
Cost	Reasonable tuition fee	0.005			0.001
	Study abroad scholarships				0.005
	Cost of living to study abroad		0.003		
	Ability to work while studying			0.001	
Services/ Facilities	Facilities that support foreign student e.g. (Dome, SSU shutter bus)			0.000	
	Environment of destined countries			0.002	0.000
	Educational services for foreign students				0.000
Learning Process	Up-to-date and relevant learning process encouraging collaborative learning			0.002	0.000
	International academic field trips	0.001			0.000
	Corporate academic partnerships between academic and industry				
	Online course and/or distance learning				
	Increase critical thinking skills			0.004	0.000
Information and Marketing	Academic advertisement				0.003
	Course descriptions and information clearly explained on media (website, facebook, youtube) with various languages			0.001	0.000
Cultural aspect	Learn about my own cultural roots				0.009
	Learn to live in cultural diversity		0.003		0.001
Connection	Social networking with			0.000	0.001

and Interaction	friends from worldwide perception of the country		
Politic and Security	Safety on university within and around the university	0.004	0.000
	Political stability	0.001	

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A Review of the Study on Father Involvement in Child Rearing

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Abstract

A large number of studies have proved that fathers have irreplaceable important value to the growth of young children. While in reality, there is a large number of "father missing" phenomenon in China. Previous studies have focused on the influence of father involvement on children development and the influence factors of father involvement in child rearing. Fathers' participation has various degrees of influence on children's development of personality, social ability, cognition, intelligence and academic achievement, gender roles, morality and emotion, as well as physical development. Family, society, fathers' characters and children's personalities all affect fathers' participation in child rearing to some extent. There are the following deficiencies in the studies of father involvement: first, the number of research on fathers' participation is very insufficient; second, the research scope of father involvement is narrow and interdisciplinary research is insufficient; third, the research depth needs to be improved urgently; Fourth, the research paradigm is mainly speculative and quantitative, and the qualitative research needs to be strengthened.

Keywords: father involvement, child rearing, review

In early childhood education, parents play irreplaceable roles in the growth of their children. Mothers give their children more living care, and fathers participate more in playing games with their kids, encouraging them to explore the outside world as well. According to Heizmann et al., children lacking fathers' love are more likely to be emotional disorder, and there are many defects such as anxiety, self-esteem and aggressive behavior. Even after being adults, they also have many bad living habits. American experts used 30 indicators of social behaviour to survey children living in families without fathers and reached a similar conclusion. They found that depression, loneliness, capricious and dependent behavior were common in these children, known as "lack of fathers' love syndrome" (Sun, 2007). In recent years, although the importance of father involvement is generally recognized by the whole society, the phenomenon of "father absence" still exists widely in China. As far as the present situation of China is concerned, fathers are more responsible for supporting families economically, while children are mainly taken care of by mothers. The Hong Kong Council for Democracy has interviewed more than 600 fathers and their children and found that 60% of them said they ignored family care because of their long working hours and lack of communication with their children (Chen, 2002). Most fathers rated themselves as unqualified or simply qualified, giving themselves the highest average of 6.4 points, lower than the average for their children to the father.

1. The Impact of Fathers' Participation on Children Development

Early studies on parentage mostly ignored the influence of fathers on children's growth. It was not until the end of the 20th century that researchers began to pay attention to the important impact of fathers on the development of their children (Aldous et al., 1998; Amato, 1994; Atkinson & Blackwelder, 1993; LaRossa & Reitzes, 1993). A large number of related studies focused on the influence of father involvement (or absence) on children's physical and mental development, and paid more attention to the role of fathers' participation in the growth of children. In summary, the important impact of fathers' participation on children development focused on the following five areas:

1.1 The Influence on Children's Personality and Social Development

Psychological studies have shown that recognition of parenting style and education is decisive in the initial course of a child's personality. Although fathers usually spend less time with their children than mothers, studies

show that fathers have a greater impact on children's social and personality development than mothers. For example, Turkish family educator Gallius believes that a responsible father's care for a child has a positive effect on the child's personality development by 25% to 30% higher than that of a mother. Fathers' participation has a positive impact on children's personality and social development, mainly reflected in promoting children to form positive, optimistic and enterprising personalities, dare to take risks, and establish good interpersonal relationships. Stanley et al. (1986) used "*Interpersonal Problem Solving Test for Preschool Children*" to test 25 4-5-year-old children whose fathers had left longer than eight months. The results showed that these children with absent fathers lacked the ability to communicate with each other in real life. Kato, Ishii-Kuntz et al. (2002) found that father involvement in parenting had a direct impact on the development of pro-social behavior of 3-year-old children. Children with higher levels of father involvement were more likely to have positive peer relationships and were more popular and loved. Psychologist Mike Minney's survey showed similar results: boys who had been in contact with their fathers for no less than two hours a day had better interpersonal relationships than boys who had less than six hours of contact with their fathers in a week. Tamis (2004) pointed out that the most basic role of a father in the growth of a child was as a playmate. Father-son play induced children's curiosity about the outside world, and successful exploration of the outside world could give them confidence and courage in face of strange environments. Chunghan Jin (2005) and Jianxiang Chen (2007) think fathers were the children's game companions, and their humor, rugged and strength would bring children infinite joy of life. In games, fathers' good personality quality such as independent, bravery and innovation can infect children, and help them to form healthy personality. The research of Shu Yu (2011) showed that the interaction and communication behavior between fathers and children and the emotional expression behavior of fathers had a significant predictive effect on the social behavior of young children.

1.2 The Influence on Children's Cognition, Intelligence and academic Achievement

Fathers influence on children's cognition development starts at a very early time. Nugent's (2001) study of Irish working class families found that the higher the fathers' participation in parenting, the higher the cognitive development level of their children. Children would have higher cognitive abilities at the age of 6 months and the following year if their fathers' participation was high. In contrast, the absence of a father has a negative impact on child's cognitive development. Xia Li (2007) found that the cognitive abilities of 5-year-old children whose parents were divorced and lacked their fathers' love were different from children in normal families, which showed that they were lagging behind in the intelligence tests such as box design, labyrinth walking, arithmetic and so on. A 12-year long study at Yale University in the United States found that children brought up by fathers had higher IQ and better scores at school and were more likely to succeed in the future. A large number of studies have shown that there is a significant relationship between parent-child relationship and children's academic achievement. According to Biller (1993), children with absent fathers were more likely to suffer from maladjustment, low academic achievement, and peer tension in school, thus showing problems such as violation of discipline and criminal behavior. Henderson et al. (1994) had similar results: father involvement was closely related to increased children's attention, reduction of disciplinary problems, and increased insight. Studies by Sott (1995), Flouri (2002, 2005), McBride (2005) had shown that when fathers participation in children education, they played positive roles in promoting their children's academic achievement and learning attitude. It was further found that parent-child relationship did not directly affect children's academic achievement, but affected children's emotion and behavior, which had an indirect effect on learning achievement.

1.3 The Impact on the Development of Children's Gender Roles

The gender role is the behavior expectation that the society produces to males and females. The development of gender role is an important aspect in the development of children's socialization. Father involvement has a significant impact on the formation of their children's gender roles, the shaping of gender behaviour, and the completion of gender socialization. Sears and his wife have made a pioneering contribution to the research. They first experimented with toy games for 3-5-year-old boys whose fathers served in the army during World War II. The study found that boys with absent fathers showed weaker aggression and less gender role differences in the game than boys who had their fathers at home. Experiments conducted by Beach (1946) and Santroek (1970) on children of different ages confirmed the validity of findings of Sears and his wife. Biller (1969) divides gender roles into two parts: first, gender roles position, which means the cognition and evaluation of oneself own gender; second, gender roles preference, which makes their behavior similar to other people of the same gender. Through the comparison between families with fathers and families without fathers, it was found that the boys in the integrated families were more masculine than the boys without fathers in the orientation of their gender roles. Doherty's study showed that women who lost their fathers before the age of five often showed anxiety, shyness

and inactivity during puberty with men. Psychologist D. Stoop (2005), in his book *"Make Peace with Dad"*, gave a detailed account of the effects of the absence of fathers at different stages of growth in boys and girls in six sets of contrastive stories.

1.4 The Influence on Children's Moral and Emotional Development

The development of human morality is influenced by many factors. Therefore, scholars have different opinions on the role of fathers playing in the development of children's morality development, and explain it from different angles. Parents influence their children's moral development through their own words and deeds, their disciplines, the satisfaction of their children's emotional needs, and the connection between their children and the outside world. Parsons and Beles believe that fathers and mothers play instrumental and emotional roles in the family. Therefore, Martin Hoffman (1981) attached great importance to the role of fathers as tools in the moral development of children, and believed that fathers could influence their moral development by teaching and internalizing various norms to their children.

1.5 The Influence on Children's Health Development

According to the traditional conception that it is mothers' responsibility to raise and take care of their children's health, and only mothers can influence the children's health. However, it has been proved that fathers still play an important role in the development of children's health through a variety of direct and indirect factors. First, fathers can indirectly affect their children's physical well-being by keeping their mothers healthy. Second, the absence of a father makes his children more likely to have health problems. Children living in remarried and single-parent families are more likely to suffer from sudden illnesses or accidental injuries than children from normal families. Harknett (2005) found that even considering demographic and socio-economic conditions, children who did not live with their fathers were more likely to suffer from asthma or other sudden diseases caused by asthma. Trost (2001) also noted that children from single mothers family were more likely to suffer from diabetes and children from families without fathers were more likely to be obese.

In summary, a large number of studies have proved that fathers' participation has an irreplaceable important value in the development of children. Father involvement plays an important role in the development of children's personality and social development, cognition, intelligence and academic achievement, gender roles, morality and emotion, physical health and so on. Therefore, studies on how to improve the fathers' participation and how to participate effectively in children education and rearing are of great significance for the healthy development of children.

2. Factors Affecting the Participation of Fathers

Park (1996) classified the factors that affected fathers' participation into five categories: personality, children, family, culture, and public institutions, but did not take into account the interaction of these factors. Belsky (1984) integrated individual, social and cultural factors into the impact on parenting behavior, and took into account three aspects of interaction. He described three determined factors of parental upbringing: parents' characteristics, social background and children's characteristics. According to his study, the support of spouses was one of the key factors that determined the function of parents. In most societies, fathers were defined as breadwinners. Father involvement encountered prejudices from acquaintances, neighbors, relatives and co-workers. Social psychology studies have also found that when men take part in parenting activities in a different way than traditional ones, others may have negative views of them.

Xu Yan et al. (2006) showed that children's grades influenced their fathers' participation. First-grade fathers had more rules on their children than kindergarten classes and middle classes, but had nothing to do with children's gender differences. Wang Shuyun (1996), a Taiwanese scholar, made some analysis in several aspects. First, the definition and restriction of traditional gender division of labor had reduced the fathers' desire to raise children. Second, social education caused men to consider their parenting abilities inferior to those of women, and delegate responsibility for upbringing to mothers who he thought would do better. Third, using the logic of division of labor, the difference of parental roles was strengthened in the work structure and system, and the time fathers spent in child-rearing reduced. Fourth, social policy and welfare services limited the opportunities for fathers to participate in parenting. At present, "paternity" is almost equal to "mother duty". Books on parenting, though captioned by parents, focus on mothers in substance, ignoring the responsibility of fathers. Anqi Xu and Liang Zhang (2008) set up a comprehensive analysis model in the light of China reality, pointing out the socio-economic characteristics of fathers, gender culture and attitudes, parenting skills and feedback, both the internal and external environment of the family and the role of "gatekeepers" of mothers had practical impact on the participation of fathers. Ming Zhang (2011) summarized the factors influencing fathers' participation in upbringing into macro-level and micro-level. The macro-level mainly included social culture, social support and

policy system and other factors. The micro-level mainly included fathers' age, education level, parenting attitude, motivation and other factors as well as children's gender, age, temperament and other external factors as well as mothers' attitude, occupation and other external factors.

According to the previous research results, the main influencing factors of fathers' participation were family factors, social factors, fathers personal characteristics and children characteristics. Among family factors affecting fathers' participation, fathers' marital satisfaction and mothers' support played a major role. Social factors included the division of traditional social roles, social traditional concepts and the social support of fathers' participation. Fathers personal characteristics mainly referred to their identities, professional knowledge of educating children, attitudes towards raising children, personality characteristics and so on. Children characteristics included their gender, temperament types, personality characteristics and so on. In addition, a small number of studies also mentioned the biological factors of father involvement, the influence of kindergarten and other educational institutions, as well as the influence of experts and scholars on fathers' participation.

3. Analysis of Existing Researches

In early 1980s, with the establishment of the theory of family system, fathers as an important pole of family education, entered the field of view of foreign researchers, and they began to study the role of fathers tentatively. The research in this stage mainly discussed the value of father education, explored and constructed the concept and structure of father involvement in upbringing, and made a simple investigation on the present situation of fathers' participation. The research scope was narrower and the research method was single. In 21st century, more and more researchers turned their attention to fathers, and separated the influence of father involvement in parenting on early childhood development from the influence of social classes and family structures. Taking fathers' participation in parenting as an independent factor to examine its influence on the development of young children. The scope of the study has been expanded gradually, not only on the significance of father involvement in upbringing on their own roles, but also on the factors that influence fathers' participation, and the influence of fathers' participation on couple co-rearing relationships, and so on. The impact of father involvement on the development of their children was further explored. The research methods got rid of the past single theoretical research and empirical investigation method, adopting many kinds of research methods, such as individual case, experiment, follow-up and so on, and made more scientific and systematic studies on the various factors of father involvement in upbringing. At present, there are few studies on father involvement in parenting in China. The scope of studies are mainly focused on the translation of foreign literatures and investigation of the present situation of domestic participation. The overall study is still in its infancy. It can be known from the above analysis that there is a lack of research on father participation in China compared with the previous studies abroad. The neglect of father participation in upbringing for a long time has led to the study of father participation in China is still in its infancy.

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References

- Billar, H. (1981). Father Absence, Divorce, and Personality Development. In M. Lamb (Ed.), *The Role of the Father in Child Development* (2nd ed.). New York, NY: Wiley.
- Billar, H. B. (1969). Father absence, maternal encouragement, and sex role development in kindergarten age boys. *Child Development*, 40(2), 539-545. <https://doi.org/10.2307/1127421>
- Billar, H. B. (1993). *Fathers and families: Paternal factors in child development*. Westport, CT: Auburn.
- Chen, J. Q. (2002). Father Discovers: There is No Rule of Fathers' Love. *Family Education*, (11), 38-39.
- Chen, J. Q. (2007). Paternal Education Should be Emphasized. *Chinese Family Education*, (1), 5.
- Flour, E. (2005). *Fathering and Child Outcomes* (pp. 56-77). West Sussex, England: John Wiley & Sons Ltd. <https://doi.org/10.1002/9780470713228>
- Golda, S. G. (1993). Family Factors to Children's Intinsic/Extrinsic Motivational Orientation and Academic Performance. *Child Development*, 1461-1474. <https://doi.org/10.1111/j.1467-8624.1993.tb02964.x>
- Hao, J. F., & Wang, Z. H. (2002). Bring into Play the Charm of Fatherly Love. *Modern Tutor*, (11).

- Harknett, K. (2005). *Children's Elevated Risk of Asthma in Unmarried Families* (pp. 19-27). Underlying Structural and Behavioral Mechanisms. Working Paper, 2005-01-FE. Princeton, NJ: Center for Research Child Well-being.
- Henderson, A. T., & Berla, N. (1994). *A New Generation of Evidence: The Family is Critical for Student Achievement*. Washington, DC: National Committee for Citizens in Education.
- Hoffman, M. (1981). The Role of Father in Moral Internalization. In M. Lamb (Ed.), *The Role of the Father in Child Development* (2nd ed.). New York, NY: Wiley.
- Jin, C. (2005). The Influence of Father on Children's Psychological Development. *Basic Education Studies*, (10).
- Judy, H. (2001). Farrington D. Distinguishing the Link between Disrupted Families and Delinquency. *British Journal of Criminology*, 41(1), 22-40. <https://doi.org/10.1093/bjc/41.1.22>
- Li, X. (2007). The Role of Fathers in the Development of Children's Personality. *Law and Society*, (6), 639.
- McBride, B. A., Schoppe-Sullivan, S. J., & Ho, M. (2005). The Mediating Role of Fathers' School Involvement on Student Achievement. *Journal of Applied Development Psychology*, 26(2), 201-216. <https://doi.org/10.1016/j.appdev.2004.12.007>
- Parker, R. (2000). *Father Roles*. Shenyang: Liaohai Press.
- Scott, J. D. (1995). Parent-child Interactions and School Achievement. In B. A. Ryan, G. R. Adams, T. P. Gullotta, R. P. Weissberg, & R. L. Hampton (Eds.), *The family-school connection* (Vol. 2, pp. 75-109). Theory, research, and practice. Thousand Oaks, CA: Sage.
- Stanley, B. K. (1986). The Effect of Father Absence on Interpersonal Problem-solving Skills of Nursery School Children. *Journal of Counseling and Development*, 64(6), 383-385. <https://doi.org/10.1002/j.1556-6676.1986.tb01141.x>
- Stoop, D. (2005). Translated by Li Libo. *Work with Dad _ Discover the Role and Influence of Fathers*. Kyushu Press.
- Sun, Y. X. (2007). *How to Be a Good Parent*. Beijing: China Personnel Press.
- Tamis-LeMonda, C. S. (2004). Conceptualizing Fathers Roles: Playmates and More. *Human Development*, 47(4), 220-227. <https://doi.org/10.1159/000078724>
- Tao, S., & Lin, L. (1994). A Study on Educational Style and Influence Factors of Mothers of 3 to 6 Years Old Children. *Psychological Development and Education*, (3).
- Thomas, M. S., & Amede, M. B. (1991). *Parents and Teachers of Exceptional Students: A Handbook for Involvement*. Allyn and Bacon Inc.
- Trost, S. G., Kerr, L. M., Ward, D.S., & Pate, R. R. (2001). Physical Activity and Determinants of Physical Activity in Obese and Non-obese Children. *International Journal of Obesity*, 25(6), 822-829. <https://doi.org/10.1038/sj.ijo.0801621>
- Wang, Z. Y. (2004). *Developmental Psychology of Preschool Children*. Beijing: People Education Press.
- Yu, S. (2011). *A Study on the Relationship between Father Rearing Behavior and Social Behavior of 2-6-year-old Children*. Shanghai: East China Normal University.
- Zhang, C. X., & Lin, Q. S. (1981). *Educational Psychology*. Taipei: Tung Wah Book Company.
- Zhang, M. (2011). *A Survey on Subjective Well-being of Urban Fathers in Participating in Parenting*. Shanghai: East China Normal University.
- Zhao, L. W. (2010). *A Survey on the Phenomenon of Father Absence in Family Education and Its Counter Measures*. Shanghai: East China Normal University.

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Assessing the Relationship Between Destination Image and Tourists' Loyalty Towards the Amusement Parks of Bangladesh: The Mediating Role of Tourists' Satisfaction and Moderating Role of Past Experience

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Abstract

The amusement park industry embodies one of the indispensable parts of the hospitality and tourism industry progressing in accordance with the shifting preferences and trends in travel and tourism demand. The main purpose of this study is to assess the relationship between destination image and tourists' loyalty towards the amusement parks of Bangladesh. This is a descriptive study in which the author used judgmental sampling technique to gather quantitative data from 300 visitors of four amusement parks in Bangladesh namely Fantasy Kingdom, Nandan Park, Vinnya Jagat, and Dreamland amusement park. The researcher used structural equation modeling to analyze the data. The findings suggest that destination image positively and significantly influences tourists' satisfaction. Furthermore, tourists' satisfaction, subsequently, results in visitors' loyalty towards amusement parks. However, the relationship between amusement park image and tourists' loyalty is mediated by tourists' satisfaction. Furthermore, it was found that past visit experience at the amusement parks does not moderate the relationship between destination image and tourists' satisfaction. The researcher believes that the findings and recommendations presented in this study will significantly encourage the amusement park marketers of Bangladesh to enhance their destination image to improve the satisfaction and loyalty levels of the visitors.

Keywords: destination image, tourists' loyalty, tourists' satisfaction, past experience, amusement parks

1. Introduction

Destination image has always been one of the most popular areas of travel and tourism research because it facilitates tourism destination marketers to adopt and implement crucial strategic marketing decisions (Rajesh, 2013). Destination image has been found to affect visitors' intention to choose a particular destination, tourists' loyalty, tourists' satisfaction as well as their post visit behavior (Baloglu, 2000; Hernández-Lobato, 2006; Chen & Tsai, 2007; Ramseook-Munhurrin et al., 2015; Chen & Phou, 2013; Chi & Qu, 2008). Specifically, the image of an amusement park has been the focal point of research by the academicians all over the world (Haahti & Yavas, 2004; Lin et al., 2007; Wu et al., 2018; Jin et al., 2015; Hapsari 2018). These days, amusement park marketing has turned into one of the crucial subsets of travel and tourism marketing because people all the over the world frequently visit these parks for the purpose of spending their vacation and pastime (Salamat & Banik, 2013). Hence, understanding and unfolding the reasons why and how visitors decide to visit an amusement park, become satisfied and exhibit loyalty have become an issue of paramount importance in the promising and competitive tourism marketing scenario.

In Bangladesh, amusement park sector is experiencing the growth stage of its life cycle (Islam et al., 2018). Shishu Park was the first ever public entertainment park established in Bangladesh in 1987. Subsequently, inspired by the achievements of Shishu Park, several other private funded amusement parks were established namely Shishu Mela, Wonderland, Fantasy Kingdom, and Nandan Park in the capital city of Dhaka (Kazi, 2006; Islam et al., 2018). Outside Dhaka, Bangladeshi tourists have the opportunity to visit Foy's Lake in Chittagong, Vinnya Jagat in Rangpur, Shopnopuri in Dinajpur, Dreamland Amusement Park in Sylhet, and Dream Holiday

Park in Narshingdi and so on. Vinnya Jagat Amusement Park, indeed, is the largest of all amusement parks situated in Bangladesh having more than 100 acres of land, thrilling rides for children, first ever planetarium in Bangladesh, statues and artifacts, replica of seven wonders of the world, 3 star hotel named “Dream Palace”, gigantic swimming pool, beautiful mosque and above all huge collection of flower and natural trees (Khondker et al., 2012). Other amusement and theme parks providing similar modern offerings have unlocked an opportunity to build Bangladesh an attractive holiday destination (Newagebd, 2018).

These days, owing to growing level of rivalry among different amusement parks in Bangladesh, the marketers of these parks are compelled to improve their image in an effort to satisfy their visitors as well as to enhance their loyalty (Islam et al., 2018). Under these circumstances, it has become imperative for the marketers of amusement parks in Bangladesh to identify major antecedents of amusement park image and to determine the relative importance of park image on visitors’ satisfaction and tourists’ loyalty. Several studies in the past have assessed the interrelationship among constructs such as destination image, tourist satisfaction and tourist loyalty but those studies were carried from different cultural context or country’s perspective. However, to the best of the author’s knowledge, there has been a dearth of published empirical research works in this topic from the perspective of the amusement parks of Bangladesh. It is believed that this study will contribute further to our existing knowledge as the author has investigated the mediating role of satisfaction and moderating role of past experience in the relationship between amusement park image and visitors’ loyalty. Furthermore, it is also expected that this study will act as a reference point for future studies in the amusement park sector of Bangladesh.

1.1 Objectives of the Study

Keeping the importance of this research problem in view, this study has been carried out to fulfill the following specific objectives:

- To develop and validate a model depicting the link between destination/amusement park image and tourists’ loyalty towards the amusement parks of Bangladesh.
- To predict the satisfaction of amusement park visitors as a function of destination image.
- To investigate the mediating role of tourist’s satisfaction in the relationship between destination image and tourist’s loyalty towards amusement parks of Bangladesh.
- To check the moderating role of past visit experience in the relationship between destination image and tourist’s satisfaction towards amusement parks of Bangladesh.
- To describe the implications for the marketers of amusement park in light of the findings of this study.

2. Literature Review

2.1 Definition of Amusement Park

Amusement park is a huge outdoor area that encompasses varieties of rides, shows, picnic spots and other entertainment facilities (Adams-Volpe, 1991). Clavé (2007) defined theme park as a centre which consists of rides, shows and other entertainment facilities. De Groote (2011) argued that amusement parks include rides and other amusement attractions designed to attract tourists and visitors at a large scale from all around the globe.

2.2 Destination Image and Tourists’ Satisfaction Relationship

Destination image stands for tourist’s common impression and feelings towards a particular destination (Ramseook-Munhurrin et al., 2015; Fakeye & Crompton, 1991). It symbolizes a mixture of beliefs, feelings, impressions, and ideas that tourists associate with a specific tourist spot or a given place (Gover et al., 2007; Chen & Tsai, 2007). In the context of this study, amusement park image refers to visitors’ in general evaluations and perceptions with regard to amusement parks formed as a result of emotional reactions and preceding experiences or explicit information about theme parks (Haathi & Yavas, 2004; Lin et al., 2007). Destination image has emerged as a pivotal element for predicting tourists’ behavioral intention (Chen & Tsai, 2007), satisfaction (Chi & Qu, 2008), and loyalty (Cai et al., 2003)) in the numerous tourism marketing literatures. The Table 1 summarizes the factors influencing the image of a destination in light of several past literatures:

Tourists’ satisfaction, on the other hand, signifies the extent to which perceived performance of a given tourism spot matches the expectations of the tourists (Kotler et al., 2017). If the performance falls short of expectations, customers or visitors happen to be dissatisfied and when the performance of a product or service (an amusement park, in the context of this study) exceeds expectations, customers or tourists will feel delighted (Kotler & Armstrong, 2017). Furthermore, according to Oliver (1997), customer satisfaction can be viewed as “a judgment that a product or service provides a pleasurable level of consumption-related fulfillment.” In fact, according to

Ryan et al., (2010), the antecedents of satisfaction in the theme park settings are connected to the atmosphere of the park, the availability of exciting rides, degrees of crowding experienced, availability of resting places and affordable admission fees and so on and so forth.

Table 1. Determinants of Destination Image

Factors influencing Destination Image	Sources
Attractions, Accessibility, Lodging, Dining, Environment, Shopping Events & Activities	Rajesh (2013)
Travel Environment, Attractions, Events, Infrastructure, Sports	Ramseook-Munhurrin et al., (2015)
Natural and Scenic resources, Accessibility, Cultural Resources, Security, Night Life and Entertainment and Quality/Price Ratio	Bigné et al., (2001); Chen & Tsai, (2007); Chi & Qu, (2008)
Motivations, Vacation Experience, Socio-Demographic Characteristics, Primary and Secondary Information Sources, Cognitive Components, Affective Components	Beerli & Mertin (2004)

The relationship between destination image and tourist satisfaction is well documented in several previous studies. In accordance with Wu et al., (2018), theme park image is a positive and significant predictor of experiential satisfaction of the theme park visitors of Janfusan Fancyworld of Taiwan. Furthermore, water park image has a direct effect on visitors' satisfaction (Jin et al., 2015). Similarly, it has been found that cognitive and affective factors of overall destination image significantly influence visitors' theme park destination preferences and satisfaction. In addition, according to Ramseook-Munhurrin et al. (2015), the better the destination image, the greater tourist's satisfaction. Therefore, the researcher postulates:

H1: Destination image positively influences tourists' satisfaction towards amusement parks.

2.3 Tourists' Satisfaction and Tourists' Loyalty Relationship

Customer loyalty is a widely studied marketing construct which has been defined in a number of different ways by several authors in the past. Table 2 summarizes three famous definition of customer loyalty:

Table 2. Definitions of Loyalty

Authors	Definition
Bose and Rao (2011)	Customer loyalty refers to the customer's commitment to do business with a specific organization which affects in repeat purchases of goods and services of that organization.
Oliver (1999)	Loyalty signifies a deeply held commitment to rebuy or re-patronize a preferred product or service in the future despite situational influences and marketing efforts having the potential to cause switching behavior
Best & Coney (1989)	Loyalty can be both attitudinal and behavioral. Attitudinal loyalty is reflected in customers' intention to repurchase whereas behavioral loyalty is reflected in customers' behavioral outcomes such as repeat purchases or act of recommendation.

Several studies in the past have provided empirical evidences with regard to the relationship between tourist satisfaction and tourists' loyalty. According to Lee et al., (2011), a positive relationship between tourist loyalty and tourist satisfaction in the context of Chinese tourist in Korea. Furthermore, tourists' satisfaction has a negative effect on tourist complaints and a positive influence on tourists' loyalty (Žabkar et al., 2010.) In the context of theme park, past studies reflect that satisfied and delighted tourists' have higher level of loyalty and revisit intention to the theme parks (Ali et al., 2018; Jin et al., 2015). Hence, the researcher can hypothesize:

H2: Tourists' satisfaction positively influences tourists' loyalty towards amusement parks.

2.4 Mediating Role of Tourist Satisfaction

A mediating variable serves as a mechanism through which independent variable or variables relate to dependent variable (Malhotra & Dash, 2017). Baron & kenney (1986) suggest that in an attempt to verify the mediating role of a variable, researchers firstly have to establish a statistically significant relationship between independent variable and dependent variable; secondly, the relationship between independent variable and mediating variable has to be statistically significant as well and finally, the relationship between independent and dependent variable has to be investigated in the presence of mediating variable. If previously established relationship between the predictor and outcome variable turns out to be insignificant, it will be a case of full mediation; otherwise there will be a case of partial mediation or no mediation (Baron & kenney, 1986). The link between destination image and tourist loyalty has been established by numerous researchers in the past (Cai et al., 2003; Jin et al., 2015; Chi

& Qu, 2008; Zhang et al., 2014; Wu et al., 2018). Furthermore, tourist satisfaction has empirically been tested as a mediating variable in several previously conducted tourism and hospitality related studies (Chi & Qu, 2008, Yoon & Uysal, 2005). Prayag & Ryan (2012) outlined that destination image is one of the key determinants that lead to visitors' loyalty but this relationship is mediated by satisfaction levels. In addition, it has been observed that the influence of destination image of Mauritius on travelers' loyalty is mediated by their satisfaction (Ramseook-Munhurrin et al., 2015). Besides, Hapsari (2018) conducted a study in the context of two Indonesian theme parks and found that both theme parks' educational image and perceived value have an indirect effect on loyalty through satisfaction. Hence, the researcher can posit:

H3: Tourists' satisfaction mediates the positive effect of destination image on tourists' loyalty towards the amusement parks of Bangladesh.

2.5 Moderating Effect of Past Visit Experience

An amusement park always focuses on developing a memorable experience for its visitors (Trischler & Zehrer, 2012). Past visit experience refers to "a past personal travel-related event strong enough to have entered long term memory" (Larsen, 2007; Park & Santos, 2017). Another definition proposes that tourist past experience indicates a visitor's subjective evaluation of events with regard to the tourist behaviors which start prior to, during, and after the tour (Tung & Richi, 2011; Bagdre, 2016).

However, tourist past experience has been used as a key moderating variable in several studies in the past (Rajaratnam et al., 2014; Pappas et al., 2014). A moderator is a variable that influences the strength of relationship between a predictor and an outcome variable (Cohen et al., 2014)). Jin et al., (2015) suggest that the effects of water park image on visitors' satisfaction significantly vary between first-time visitors and experienced repeat visitors. Furthermore, past experience is found to have a moderating effect on the relationship between the overall image of the tourist destination and tourist's satisfaction (Rodríguez Molina et al., 2013). Therefore, based on the above discussion, the researcher has proposed the following hypothesis:

H4: Tourist past visit experience moderates the relationship between destination image and tourist satisfaction.

On the basis of the objectives of this study and review of literature, the researcher has proposed the following conceptual framework:

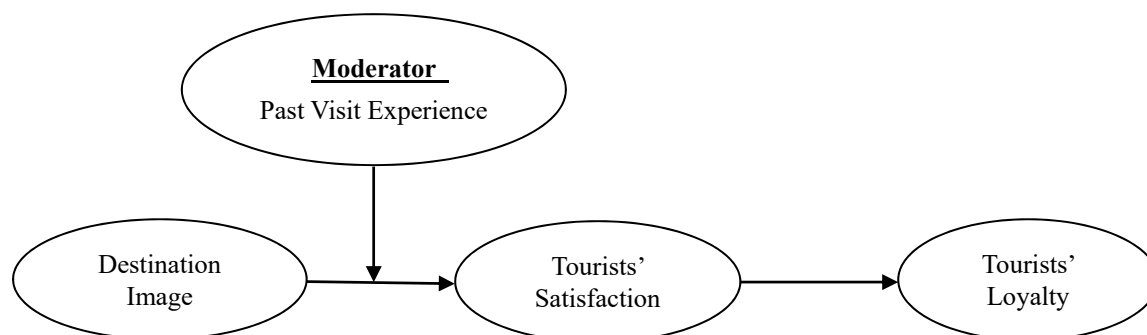


Figure 1. Conceptual Framework

3. Methodology

3.1 Research Design

A cross sectional descriptive study has been conducted by the researcher with a survey questionnaire which has been administered to multiple respondents and information from each respondent was gathered only once.

3.2 Sources of Data

Both primary and secondary sources of data are basically utilized to increase the meaningfulness and acceptability of a study (Haque, Bappy, & Arifuzzaman, 2018). The primary data for this study have been obtained from the respondents by the researcher himself using a structured survey questionnaire. Review of different travel and tourism based established literatures and related newspaper articles with regard to amusement parks facilitated the researchers to accumulate the secondary data.

3.3 Measurement and Scaling

All the variables of this study have been estimated using multiple item based Likert scales with 5 response categories ranging from strongly disagree (1) to strongly agree (5). Most of the items measuring the latent

constructs have been extracted from previous studies and modified to fit the context of the study. Latent constructs such as destination image, tourists' satisfaction have been measured by means of four indicators each. They have Cronbach's Alpha values of .882, .905 respectively. On the other hand, tourists' loyalty has been measured by using three items each. This construct presents an alpha value of .878. Another variable "past visit experience" has been measured by means of a categorical scale (1 = fast time visit experience, 2 = repeat visit experience). All the items and the sources from which they have been adopted are demonstrated in Appendix (1). Malhotra & Dash (2015) is of the view that data obtained from Likert scale should be treated as interval. It was also reported that parametric tests can be used to examine Likert scale responses even when the assumption of normality is not fulfilled (Norman, 2010; Bappy et al., 2018).

3.4 Target Population, Sampling Technique and Sample Size:

The target population for this study involves the male and female amusement park visitors from several districts of Bangladesh such as Dhaka, Chittagong, Rangpur, and Sylhet. The whole study was conducted from December 01, 2018 to June 01, 2019.

Table 3. Sample Distribution

Amusement Park	District	Respondents
Fantasy kingdom	Dhaka	70
Nandon Park	Dhaka	70
Vinnya Jagat	Rangpur	60
Foy's lake	Chittagong	50
Dreamland Amusement Park	Sylhet	50
Total		300

The researcher used judgmental sampling technique where respondents were selected on the basis of the judgment of the researcher. This technique was employed because of its low cost and convenience. Besides, it was very difficult for the researcher to prepare a sampling frame or a list of tourists within a short period. Furthermore, Hair et al., (2017) recommended the use of judgmental sampling when there is no sampling frame. The sample size was fixed to be 300 who were surveyed both online and offline. Sample size was computed based on the guidelines provided by Malhotra & Das (2015). They suggest that structural equation models (SEM) with five or fewer constructs, each measured with at least three items, and communalities of at least .5 must be estimated with a sample size of minimum 200. In this study, the researcher has included three multi item constructs, each measured with at least three indicators each. Hence, it can be said that the sample size of 300 is acceptable for carrying out this study.

The questionnaire was initially formed in English and then it was translated into Bengali to ensure that the respondents understand the questionnaire items clearly. Initially, the questionnaire was handed over to 500 respondents. Out of which, 152 respondents provided incomplete answers. Among the rest, 301 respondents provided complete responses and 47 questionnaires included erroneous responses and thus were eliminated.

3.5 Data Analysis

For data analysis, a confirmatory factor analysis (CFA) has been performed to assess the measurement model. In addition, with the use of path analysis, the researcher evaluated the hypothesized relationships proposed in the conceptual framework. The validity and reliability of the scales have been measured based on composite reliability, average variance extracted and other relevant statistics. Hence, structural equation modeling analysis using AMOS graphics has been used by the researcher. Besides, SPSS version 23 has also used to test the moderating effect of past visit experience in the relationship between destination image and tourists' satisfaction.

4. Findings

4.1 Measurement Model

Firstly, the researcher performed a confirmatory factor analysis (CFA) in an effort to test the measurement model outlined in the figure 2. The measurement model adopted in this study consists of three unobserved variables estimated by their respective items and these three constructs have been permitted to correlate independently with each other. This measurement model is an identified model because the number of distinct sample moments (66) turns out to be greater than the number of distinct parameters to be estimated (25) resulting in a positive degree of freedom (41).

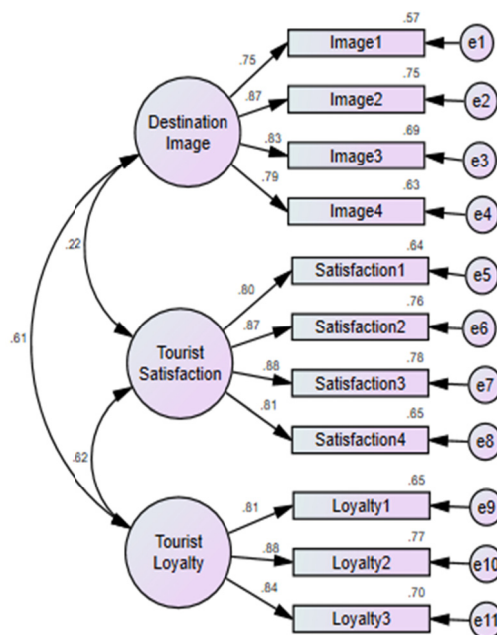


Figure 2. Measurement Model

Table 4. Goodness of Fit Statistics (Measurement Model)

Degree of Freedom (df) = 41

Chi Square for independent model with 41 degrees of freedom = 71.085 with a P value of .002

Root Mean Square Error of Approximation (RMSEA) = .050

Root Mean Square Residuals (RMR) = .028

Normed Fit Index (NFI) = .968

Comparative Fit Index (CFI) = .986

Goodness of Fit Index (GFI) = .959

As evident from Table 4, the fit of the three-construct measurement model is satisfactory. Model fit is determined on the basis of chi square statistic, three goodness-of-fit indices such as NFI, CFI & GFI and two badness-of-fit indices such as RMSEA and RMR. As a rule of thumb, higher values above .95 are considered acceptable for NFI, CFI and GFI and lower values below .08 are considered to be favorable for RMSEA and RMR (Malhotra & Dash, 2015). Table 4 shows that the values of NFI (.968), CFI (.986) and GFI (.959) exceeded the threshold level of .95 and the values of RMSEA (.050) and RMR (.028) are lesser than .08. These results are normally favorable apart from chi-square $\chi^2(41) = 71.085$ ($P < .05$) which has been found to be significant. However, Benter & Bonett (1980) argued that while evaluating the overall fit of the model, the researcher should not rely only upon chi square since it is sensitive to sample size increases. Therefore, the researcher evaluated alternative fit-indices and found that hypothesized model robustly fits the empirical data collected for conducting this study.

Table 5. CFA Results of Measurement Model/Indicator Variable

Construct	Scale Items	Factor Loadings	Composite Reliability	AVE	MSV	ASV
Destination Image	DI1	0.753	.884	.657	.368	.208
	DI2	0.865				
	DI3	0.829				
	DI4	0.792				
Tourists' Satisfaction	Sat1	0.802	.907	.712	.383	.215
	Sat2	0.874				
	Sat3	0.884				
	Sat4	0.808				
Tourists' Loyalty	Loyalty1	0.809	.880	.710	.383	.376
	Loyalty2	0.878				
	Loyalty3	0.839				

Next, the researcher measured the reliability and validity of the constructs. Composite reliability of each construct is computed to measure the reliability of the scales. As a rule of thumb, composite reliabilities of .60 or above are considered to be adequate (Bagozzi & Yi, 1988). In this study, all the composite reliabilities of each item of the latent constructs exceeded the suggested cut-off criterion of .60. In addition to reliability, the researcher measured the validity of the scales in terms of convergent validity and discriminant validity.

As evident from Table 5, all the factors loadings are significantly correlated and surpassed the cut-off value of .40 (Stevens, 2012) and the average variance extracted (AVE) of all constructs are greater the threshold level of .50 (Kline, 2015; Malhotra & Dash, 2015). All these outcomes demonstrate ample evidences of convergent validity. On the other hand, to establish discriminant validity, maximum shared variance (MSV) and average shared variance (ASV) have to be lower than the average variance extracted (Hair et al., 2006). As evident from Table 5, the values of MSV and ASV are smaller than the values of AVE which provide empirical evidences for discriminant validity of the constructs. Overall, this measurement model seems suitable from the perspective of this study because there are empirical evidences of good model fit, reliability, convergent validity and discriminant validity.

4.2 Structural Model

In the next phase of the study, multiple indicators measuring several constructs were averaged to achieve the scores of different constructs that were consequently used in the path analysis for testing several hypotheses formulated to carry out this study.

Table 6. Path Analysis Results (Direct and Indirect Effects)

Path	Standardized Path Coefficients	
	Direct Effect	Indirect Effect
Destination Image ---> Tourists' Satisfaction	0.202*	
Tourists' Satisfaction---> Tourists' Loyalty	0.471*	
Destination Image ---> Tourists' Loyalty		0.095*

Note: *P < .05; Significant

However, based on the results shown in Table 6, the researcher tested the hypothesized relationships of the constructs delineated in Figure 1.

H1 stated that destination (amusement park) image positively influences tourists' satisfaction towards amusement parks of Bangladesh. As shown in Table 6, the effect of destination (park) image on tourists' satisfaction is in the hypothesized path and it was statistically significant ($\beta = .202$; $p < .05$). Hence, it can be reasonably concluded that this research hypothesis is strongly supported.

H2 assumed that tourists' satisfaction is positively related to tourists' loyalty towards amusement parks of Bangladesh. As indicated in Table 6, the influence of tourists' satisfaction on their loyalty towards amusement park is in hypothesized direction and it was statistically significant ($\beta = .471$; $p < .001$). As a result, the researcher could not reject the claim that highly satisfied tourists will more frequently visit the amusement parks of Bangladesh.

To examine the mediating influence of destination image on the tourists' loyalty as stated in H3, the researcher relied upon the steps recommended by Baron & Kenny (1986). As shown in Table 6, indirect effect of destination image on tourists' loyalty through tourists' satisfaction is statistically significant ($\beta = .095$; $p < .05$) which means the positive effect destination image on tourists' loyalty is mediated by tourists' satisfaction. However, only the values of indirect effect do not provide conclusive evidence about the type of mediation. To find out whether there is full mediation or partial mediation, further analysis is required.

Table 7. Results of Hypothesis Testing for Evaluating the Mediating Effect of Tourists' Satisfaction

Hypothesis	Causal Path	Path Coefficients	P Value	Results
H3	Destination Image ---> Tourists' Loyalty , when Tourists' Satisfaction --> Tourists' Loyalty is constrained	0.546**	0.000	Partial Mediation
	Destination Image ---> Tourists' Loyalty , when Tourists' Satisfaction --> Tourists' Loyalty opened	0.451**	0.000	

Note: **P < .05 (Statistically Significant)

As shown in Table 7, after reviewing the conditions for mediation (Barron & Kenny 1986), when the satisfaction was not connected to tourists' loyalty or the mediating path from satisfaction to tourists' loyalty was restrained,

the direct effect of destination (park) image ($\beta = .546$, $P < .05$) on tourists' loyalty was statistically significant. It was previously seen from Table 6 that satisfaction ($\beta = .471$; $p < .001$) is positively related to tourists' loyalty. However, previously significant direct effect of destination image on tourists' loyalty was still significant but reduced ($\beta = .451$; $p < .05$) when the mediating path from tourists' satisfaction to tourists' loyalty was opened. Based on these results, it can be concluded that tourists' satisfaction partially mediates positive the relationship between destination (park) image and tourists' loyalty. As shown in figure 3, since H1 and H2 are fully supported and H3 is partially supported, the path destination image $\rightarrow$ tourists' satisfaction $\rightarrow$ tourists' loyalty can be established.

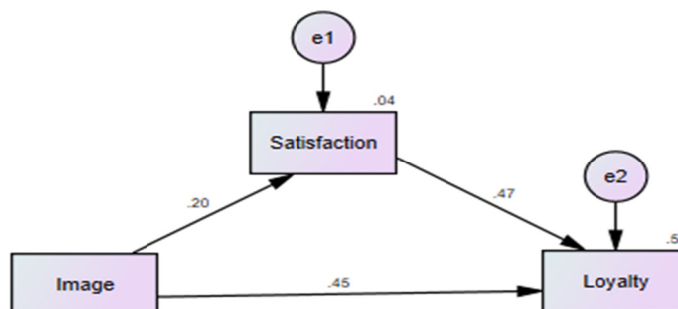


Figure 3. Structural Model

Table 8. Results of Moderated Regression Analysis

		Coefficients ^a					
Past Experience	Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
		B	Std. Error	Beta			
First time visit	1 (Constant)	2.791	.322		8.674	.000	
	Image	.267	.081	.261	3.283	.001	
Repeat Visit	1 (Constant)	3.350	.375		8.942	.000	
	Image	.142	.091	.127	1.561	.121	

Significance of the Difference between Two Slopes

t-value: 1.02603884

df: 296

P value: 0.30571104

a. Dependent Variable: Satisfaction

To test the moderation effect, the author relied on an online calculator in an attempt to ascertain whether the slopes of two lines (first time visit versus repeat visit) are significantly different from each other, given the slope, standard error, and sample size for each line (Sopher, 2019). Applying the values of sample size, beta coefficients, and standard errors as shown in Table 8 in Daniler Sopher's online calculator, the author obtained the z value of 1.03 which is lesser than the cut-off value of 1.96 and its associated p value (.301) was found to be greater than .05. The decision rule is if $t < 1.96$, there is no moderation effect (Cohen et al., 2014). As a result, the data obtained from this study could not accept H4. Therefore, it can be concluded that the relationship between destination image and satisfaction is the same for both the groups with first time visit experience and repeated visit experience.

5. Discussion and Implications

The empirical outcomes of this study have established our belief and contributed to the existing knowledge that tourist satisfaction is the generic mediating instrument by means of which the image of a destination such as amusement park can positively influence the loyalty of the visitors. The current study uncovers that the destination image positively influences tourists' satisfaction. This result is consistent with the results of previous studies conducted in this field (Chon, 1990; Wu et al., 2018; Jin et al., 2015; Ramseook-Munhurrin et al., 2015). This empirical effect of destination image on visitors' satisfaction with amusement park has extremely solid and pragmatic implications for the amusement park marketers in Bangladesh. The amusement park authorities can enhance their image by means of ensuring modern and quality infrastructures such as thrilling and enjoyable rides, accommodation facilities, swimming pools, artifacts, shopping facilities, restaurants, theaters, concerts, attractive trees and so on. Moreover, the park management ought to consider the safety and pricing issues of the

visitors to improve their image (Bappy & Samiya, 2018; Kazi, 2006; Khondkar et al., 2012). If the overall park image can be enhanced, visiting amusement parks will be a satisfying experience for the visitors (Bappy & Samiya, 2018; Newagebd, 2018; Islam et al.; 2018). This study also reveals that tourist satisfaction is positively related to the loyalty of the park visitors which signifies the fact that satisfied tourists is likely to exhibit repeat visit intention to the parks and are mostly likely to recommend their positive experiences to their kith and kin. This result also matches the results of previous studies (Valle et al., 2006; Lee et al., 2011; Žabkar et al., 2010; Chi & Qu, 2008) Hence, the marketers of amusement parks should constantly monitor the tourists' satisfaction levels with respect to various services of the parks. In order to generate more loyalty, marketers can arrange special frequency reward programs for the ones who repeatedly visit the parks and spend in larger amounts. The reward programs can involve flexible pricing, free rides, discounts in cottage booking or hotel services for the loyal tourists. However, this study identifies that whether a tourist has first time visit experience or repeat visitor experience, the influence of destination image on tourists' satisfaction happen to be the same for both the groups. This result, however, is different from the previous studies (Jin et al., 2015; Rodríguez Molina et al., 2013). Therefore, it is recommended that destination image be equally communicated to all types of tourists irrespective of their past visit experience.

6. Conclusion

The study examines the interrelation between destination image and tourists' satisfaction which ultimate results in tourists' loyalty towards the amusement parks of Bangladesh. In this era of cutthroat rivalry, an integrated approach and attention towards theme-based amusement parks can result in a major boost to the domestic tourism of Bangladesh, catching the attention of larger number of foreign tourists. Besides, in order to achieve the sustainability development goal of sustainable cities and communities (SDG-11), amusement parks can play a significant role. Hence, the image of amusement parks of Bangladesh must be improved by incorporating modern facilities and removing the mismanagements. On the other hand, satisfied and loyal amusement park visitors will frequently visit the parks, spend in greater amount, choose amusement parks over the other choices of destination, and will recommend the park to their nearest and dearest ones.

However, the present study bears some limitation with respect to sampling. This study incorporates a non-probability sampling technique due to unavailability of any sampling frame of amusement park visitors. This technique of choosing samples is subjective in nature. Besides, there are hundreds of amusement parks in Bangladesh but this study covers respondents from only four amusement parks. Although they are representative of the population, it may reduce the scope of generalization. The study does not show how customer loyalty or satisfaction varies with respect to the demographic characteristics of the respondents. This study involves only one predictor of tourist satisfaction. Further studies in this topic might include other variables such as attitude towards amusement park, service quality, perceived value, service marketing mix elements and so on to predict tourists' satisfaction and loyalty. Despite having some limitations, this is the first study in the context of Bangladesh which attempts to explain the relationship between destination image and tourist loyalty by checking the mediating effect of tourists' satisfaction and moderating effect of past visit experience. Overall, it is believed that this paper will act as a stepping stone for future studies in the amusement park sector of Bangladesh.

References

- Adams-Volpe, J. (1991). *The American amusement park industry: A history of technology and thrills*. <https://doi.org/10.2307/2078566>
- Alegre, J., & Garau, J. (2010). Tourist satisfaction and dissatisfaction. *Annals of tourism research*, 37(1), 52-73. <https://doi.org/10.1016/j.annals.2009.07.001>
- Ali, F., Kim, W. G., Li, J., & Jeon, H. M. (2018). Make it delightful: Customers' experience, satisfaction and loyalty in Malaysian theme parks. *Journal of Destination Marketing & Management*, 7, 1-11. <https://doi.org/10.1016/j.jdmm.2016.05.003>
- Bagdare, S. (2016). A conceptual framework for management of tourism experience. *Imperial Journal of Interdisciplinary Research*, 2(6), 718-722.
- Bagozzi, R. P., & Yi, Y. (1988). On the evaluation of structural equation models. *Journal of the academy of marketing science*, 16(1), 74-94. <https://doi.org/10.1007/BF02723327>
- Baloglu, S. (2000). A path analytic model of visitation intention involving information sources, socio-psychological motivations, and destination image. *Journal of Travel & Tourism Marketing*, 8(3), 81-90. https://doi.org/10.1300/J073v08n03_05
- Bappy, T. A., Haque, S. S., & Halim, S. B. (2018). University students' shopping behavior for beauty soap

- brands in Bangladesh: A comparison of attitude towards foreign versus local brand. *Asian Journal of Management Sciences & Education*, 7(4), 59-70.
- Bappy, T. A., & Halim, S. B. (2018). The Impact of Service Quality Dimensions on Visitors' Satisfaction towards the Theme Parks of Bangladesh: An Empirical Study on Fantasy Kingdom Based on SEVQUAL Model. *The AIUB Journal of Business and Economics*, 15(1), 62-80.
- Beerli, A., & Martin, J. D. (2004). Factors influencing destination image. *Annals of tourism research*, 31(3), 657-681. <https://doi.org/10.1016/j.annals.2004.01.010>
- Bentler, P. M., & Bonett, D. G. (1980). Significance tests and goodness of fit in the analysis of covariance structures. *Psychological bulletin*, 88(3), 588. <http://dx.doi.org/10.1037/0033-2909.88.3.588>
- Best, R. J., & Coney, K. A. (1989). *Consumer behavior: Implications for marketing strategy*. McGraw-Hill/Irwin.
- Bigné, J. E., Sánchez, M. I., & Sánchez, J. (2001). Tourism image, evaluation variables and after purchase behaviour: Inter-relationship. *Tourism Management*, 22, 607-617. [https://doi.org/10.1016/S0261-5177\(01\)00035-8](https://doi.org/10.1016/S0261-5177(01)00035-8)
- Bose, S., & Rao, V. G. (2011). Perceived benefits of customer loyalty programs: Validating the scale in the Indian context. *Management & Marketing*, 6(4), 543-560.
- Cai, L. A., Wu, B. T., & Bai, B. (2003). Destination image and loyalty. *Tourism Review International*, 7(3-4), 153-162. <https://doi.org/10.3727/1544272031437656>
- Chen, C. F., & Phou, S. (2013). A closer look at destination: Image, personality, relationship and loyalty. *Tourism management*, 36, 269-278. <https://doi.org/10.1016/j.tourman.2012.11.015>
- Chen, C. F., & Tsai, D. (2007). How destination image and evaluative factors affect behavioral intentions?. *Tourism management*, 28(4), 1115-1122. <https://doi.org/10.1016/j.tourman.2006.07.007>
- Chi, C. G.-Q. & Qu, H. (2008). Examining the structural relationships of destination image, tourist satisfaction and destination loyalty: An integrated approach. *Tourism Management*, 29, 624-636. <https://doi.org/10.1016/j.tourman.2007.06.007>
- Chon, K. S. (1990). The role of destination image in tourism: A review and discussion. *The tourist review*, 45(2), 2-9. <https://doi.org/10.1108/eb058040>
- Clavé, S. A. (2007). *The global theme park industry*. <https://doi.org/10.1079/9781845932084.0000>
- Cohen, P., West, S. G., & Aiken, L. S. (2014). *Applied multiple regression/correlation analysis for the behavioral sciences*. Psychology Press. <https://doi.org/10.4324/9781410606266>
- De Groote, P. (2011). Globalisation of Commercial Theme Parks Case: The Walt Disney Company. *APSTRACT: Applied Studies in Agribusiness and Commerce*, 5(3), 21-28.
- Do Valle, P. O., Silva, J. A., Mendes, J., & Guerreiro, M. (2006). Tourist satisfaction and destination loyalty intention: A structural and categorical analysis. *International Journal of Business Science & Applied Management (IJBSAM)*, 1(1), 25-44. <http://hdl.handle.net/10419/190577>
- Fakeye, P. C., & Crompton, J. L. (1991). Image differences between prospective, first-time and repeat visitors to the Lower Rio Grande Valley. *Journal of Travel Research*, 30(2), 10-16. <https://doi.org/10.1177/004728759103000202>
- Govers, R., Go, F., & Kumar, K. (2007). Promoting Tourism Destination Image. *Journal of Tourism Research*, 14(2), 234-256. <https://doi.org/10.1177/0047287507302374>
- Haahti, A., & Yavas, U. (2004). A multi-attribute approach to understanding image of a theme park: The case of SantaPark in Lapland. *European Business Review*, 16(4), 390-397. <https://doi.org/10.1108/09555340410547026>
- Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2006). *Multivariate data analysis* (Vol. 6), Upper Saddle River, NJ: Pearson Prentice Hall.
- Hair, J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M., & Thiele, K. O. (2017). Mirror, mirror on the wall: A comparative evaluation of composite-based structural equation modeling methods. *Journal of the Academy of Marketing Science*, 45(5), 616-632. <https://doi.org/10.1007/s11747-017-0517-x>
- Hapsari, R. (2018). Creating Educational Theme Park Visitor Loyalty: The Role of Experience-Based

- Satisfaction, Image and Value. *Tourism and hospitality management*, 24(2), 359-274. <https://doi.org/10.20867/thm.24.2.7>
- Haque, M. S. S., Bappy, T. A., & Arifuzzaman, M. (2018). The Impact of Brand Awareness on Customer Loyalty towards Igloo Ice Cream: A Study on Dhaka University Students. *International Journal of Science and Business*, 2(1), 1-21. <https://doi.org/10.5281/zenodo.1136274>
- Hernández-Lobato, L., Solis-Radilla, M. M., Moliner-Tena, M. A., & Sánchez-García, J. (2006). Tourism destination image, satisfaction and loyalty: A study in Ixtapa-Zihuatanejo, Mexico. *Tourism geographies*, 8(4), 343-358. <https://doi.org/10.1080/14616680600922039>
- Islam, N., Islam, T., Abbas, S. M., Huda, R. B., Tabassum, A., & Mubassira, Q. N. (2018). Visitors' Perception about the Entertainment Parks in Dhaka City of Bangladesh. *Available at SSRN 3304665*. <https://dx.doi.org/10.2139/ssrn.3304665>
- Jin, N., Lee, S., & Lee, H. (2015). The effect of experience quality on perceived value, satisfaction, image and behavioral intention of water park patrons: New versus repeat visitors. *International Journal of Tourism Research*, 17(1), 82-95. <https://doi.org/10.1002/jtr.1968>
- Khondkar, M., Pathak, K. P., & Anis, A. (2012). Success Factors of Place Marketing: A Study on Vinnya Jagat. *Journal of Business*, 33(1).
- Kline, R. B. (2015). *Principles and practice of structural equation modeling*. Guilford publications. <https://doi.org/10.1080/10705511.2012.687667>
- Kozak, M., & Rimmington, M. (2000). Tourist satisfaction with Mallorca, Spain, as an off-season holiday destination. *Journal of travel research*, 38(3), 260-269. <https://doi.org/10.1177/004728750003800308>
- Lee, S., Jeon, S., & Kim, D. (2011). The impact of tour quality and tourist satisfaction on tourist loyalty: The case of Chinese tourists in Korea. *Tourism Management*, 32(5), 1115-1124. <https://doi.org/10.1016/j.tourman.2010.09.016>
- Lin, C. H., Morais, D. B., Kerstetter, D. L., & Hou, J. S. (2007). Examining the role of cognitive and affective image in predicting choice across natural, developed, and theme-park destinations. *Journal of Travel Research*, 46(2), 183-194. <https://doi.org/10.1177/0047287506304049>
- Mallhotra Naresh, K., & Dash, S. (2015). *Marketing Research, An Applied Orientation, 7e*. Pearson India.
- Newagebd. (2018). *Modern amusement and theme parks can make BD a good holiday destination*. Retrieved from <http://www.newagebd.net/article/47596/modern-amusement-and-theme-parks-can-make-bd-a-good-holiday-destination>
- Norman, G. (2010). Likert scales, levels of measurement and the "laws" of statistics. *Advances in health sciences education*, 15(5), 625-632. <https://doi.org/10.1007/s10459-010-9222-y>
- O. Pappas, I., G. Pateli, A., N. Giannakos, M., & Chrissikopoulos, V. (2014). Moderating effects of online shopping experience on customer satisfaction and repurchase intentions. *International Journal of Retail & Distribution Management*, 42(3), 187-204. <https://doi.org/10.1108/IJRDM-03-2012-0034>
- Oliver, R. L. (1999). Whence consumer loyalty? *Journal of Marketing*, 63(4_suppl1), 33-44. <https://doi.org/10.1177/00222429990634s105>
- Park, S., & Santos, C. A. (2017). Exploring the tourist experience: A sequential approach. *Journal of Travel Research*, 56(1), 16-27. <https://doi.org/10.1177/0047287515624017>
- Prayag, G., & Ryan, C. (2012). Antecedents of tourists' loyalty to Mauritius: The role and influence of destination image, place attachment, personal involvement, and satisfaction. *Journal of travel research*, 51(3), 342-356. <https://doi.org/10.1177/0047287511410321>
- Rajaratnam, S. D., Munikrishnan, U. T., Sharif, S. P., & Nair, V. (2014). Service quality and previous experience as a moderator in determining tourists' satisfaction with rural tourism destinations in Malaysia: A partial least squares approach. *Procedia-Social and Behavioral Sciences*, 144, 203-211. <https://doi.org/10.1016/j.sbspro.2014.07.288>
- Rajesh, R. (2013). Impact of tourist perceptions, destination image and tourist satisfaction on destination loyalty: A conceptual model. *PASOS. Revista de Turismo y Patrimonio Cultural*, 11(3), 67-78. <https://doi.org/10.25145/j.pasos.2013.11.039>
- Ramseook-Munhurrin, P., Seebaluck, V. N., & Naidoo, P. (2015). Examining the structural relationships of

- destination image, perceived value, tourist satisfaction and loyalty: Case of Mauritius. *Procedia-Social and Behavioral Sciences*, 175, 252-259. <https://doi.org/10.1016/j.sbspro.2015.01.1198>
- Rodríguez Molina, M. Á., Frías-Jamilena, D. M., & Castañeda-García, J. A. (2013). The moderating role of past experience in the formation of a tourist destination's image and in tourists' behavioural intentions. *Current issues in tourism*, 16(2), 107-127. <https://doi.org/10.1080/13683500.2012.665045>
- Ryan, C., Shih Shuo, Y., & Huan, T. C. (2010). Theme parks and a structural equation model of determinants of visitor satisfaction-Janfusan Fancyworld, Taiwan. *Journal of Vacation Marketing*, 16(3), 185-199. <https://doi.org/10.1177/1356766710372245>
- Salamat Ullah Bhuiyan, S. M., & Banik, S. (2013). Amusement Marketing: A Few Dimensions of Amusement Parks. *International Journal of Business Insights & Transformation*, 7(1), 36-41.
- Soper, D. S. (2019). *Significance of the Difference between Two Slopes Calculator* [Software]. Retrieved from <http://www.danielsoper.com/statcalc>
- Stevens, J. P. (2012). *Applied multivariate statistics for the social sciences*. <https://doi.org/10.2307/1164712>
- Swarbrooke, J., & Horner, S. (2007). *Consumer behaviour in tourism*. <https://doi.org/10.4324/9780080466958>
- Trischler, J., & Zehrer, A. (2012). Service design: Suggesting a qualitative multistep approach for analyzing and examining theme park experiences. *Journal of Vacation Marketing*, 18(1), 57-71. <https://doi.org/10.1177/1356766711430944>
- Tsiotsou, R. H., Ratten, V., Byon, K. K., & Zhang, J. J. (2010). Development of a scale measuring destination image. *Marketing Intelligence & Planning*, 28(4), 508-532. <https://doi.org/10.1108/02634501011053595>
- Wu, H. C., Li, M. Y., & Li, T. (2018). A study of experiential quality, experiential value, experiential satisfaction, theme park image, and revisit intention. *Journal of Hospitality & Tourism Research*, 42(1), 26-73. <https://doi.org/10.1177/1096348014563396>
- Yoon, Y., & Uysal, M. S. (2005). An examination of the effects of motivation and satisfaction on destination loyalty: A structural model. *Tourism Management*, 26(1), 45-56. <https://doi.org/10.1016/j.tourman.2003.08.016>
- Žabkar, V., Brenčič, M. M., & Dmitrović, T. (2010). Modelling perceived quality, visitor satisfaction and behavioural intentions at the destination level. *Tourism management*, 31(4), 537-546. <https://doi.org/10.1016/j.tourman.2009.06.005>
- Zhang, H., Fu, X., Cai, L. A., & Lu, L. (2014). Destination image and tourist loyalty: A meta-analysis. *Tourism management*, 40, 213-223. <https://doi.org/10.1016/j.tourman.2013.06.006>

Appendix A: Psychometric Properties of the Measurement Model.

Constructs	Summary of Scale Items Used in this Study	References
Destination Image	The amusement park has excellent natural attractions (trees, flowers & green grass)	Tsiotsou et al., 2010
	The park has beautiful natural scenery	
	The park has quality infrastructure (Cleanliness, rides, accommodations & artifacts)	
	Amusement parks of Bangladesh is a pleasing and enjoyable travel destination	
Tourists' Satisfaction	I believe I am satisfied with the services of amusement park of Bangladesh.	Chi & Qu, 2008
	Overall, I am pleased with our amusement parks.	
	Visiting amusement parks is usually a satisfactory experience	
	My feelings towards the amusement parks of our country are not dissatisfactory.	
Tourists' Loyalty	I will continue to visit and patronize this amusement park.	Ramseook-Munh urrun et al., 2015
	I have an intention to visit this amusement park in future	
	I will recommend this park to others as a favorable destination	

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