



## **Economic Impact of Leasing on Lessees in Jaffna District of Sri Lanka**

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**Received:** 16 October 2020

**Accepted:** 26 December 2020

**DOI:** <https://doi.org/10.32479/ijefi.10885>

### **ABSTRACT**

This study examines the impact of leasing on lessee's income, family expenditure and default rate in Jaffna District which was badly affected by the civil war from 1983 to 2009. This war has significantly affected the socioeconomic status of the people living in the area. Since the end of the war, the presence of the financial institutions has been increased significantly in the district. There are 39 financial institutions operating in Jaffna district and all of them have the function of leasing as their major operation. In general, service sector contributes 65% of the economy in Jaffna district. Transport service is also playing an important role in the economy of the district. Domestic tourism slowly emerges as a significant economic activity in this district. For this study, 331 leasing clients were randomly selected to collect data using pre tested questionnaire. The study has found that 72.8% of leasing facilities has been offered to transport sector and out of the leased facilities 39.9% were seized. Multiple regression models for lessee's income and family expenditure and probit model for default rate of leasing were developed to study effect of leasing on lessee's income, family expenditure and default rate. The results show that leasing has positive impact on income and family expenditure. On average, family expenditure increased by leasing is greater than the income increased by leasing because most of the lessees are economically marginalized. Therefore, there is higher possibility to get default but increase in leasing amount decrease the default rate. Leasing had greater positive income effect on self-employed clients using leasing in their own business. It was found that the leasing companies are charging very high interest rate and penalty on delayed installments. Leasing companies need to assess the client's potentials and repayment capacity before offering leasing facility. Leasing companies should provide more grace period when the clients are in trouble. It is recommended to offer more leasing facilities to other sectors such as fisheries, agriculture and industries.

**Keywords:** Leasing Facility, Multiple Linear Regression, Socio-economic Impact

**JEL Classifications:** G21, D25, D14, O12

### **1. INTRODUCTION**

Jaffna District is one of the districts in the northern province of Sri Lanka and occupies most of the Jaffna Peninsula. The Northern Province contributes 3.5% to the national GDP, the lowest among the nine provinces. But, according to Central Bank sources it is growing at a fast pace of 12.1% per annum. The economy in North is worth Rs. 390,689 million, of which services make up 65%, industry 20% and agriculture 15%. The economic contribution of Jaffna district is significantly higher than the other districts in the Northern Province. Main economic activities in Jaffna District

are agriculture and fisheries. More than 60% of the families in the district generally depend on agriculture. The numbers of finance and leasing companies, establishment of branches and performing leasing activities have significantly increased in Sri Lanka in the recent past. This has been very much significant in the Northern Province, especially in Jaffna District. After the war, almost all the finance and leasing companies have opened their branches in all the main cities in Jaffna district. The bank density index for Jaffna District is 24 and population per branch is 4152. The index is the second highest in Sri Lanka, next to Colombo; the capital of the country. All four types of financial institutions now have more than

one branch in Jaffna district. There are 10 licensed commercial banks, 3 licensed specialized banks; 23 licensed finance companies and 3 specialized leasing companies who run their operations in the district (Central Bank Regional Office, 2017). All together there are 39 financial institutions which run their operations in the district with over 200 branches. This scenario has led to Jaffna District becoming the national record holder of the highest density of banks and finance companies. This situation has significantly influenced the increase of leasing activities in Jaffna District.

The total economy of Jaffna district was also opened after a 30-year lull period and people have got access to the finance and leasing companies easily to fulfill their needs. At the same time competition among the companies has also increased resulting in greater choice for people. Finance and leasing companies compete each other to attract customers on to their account often looking for shortcuts to bypass regulations. This situation has manipulated the condition prevailed previously in Jaffna District. Since the companies have not fully followed the regulations in granting approval for loans and leasing, people have started approaching the companies for various needs including consumptions and procuring luxury goods and services beyond their capacity. This situation has started creating problems to the leasing companies as well as the people who obtained leasing from the companies and failed to repay the monthly installments regularly. Since the procedures to obtain leasing have been made easier for the people and the restrictions put on the local economy have been removed, people started investing on everything. Moreover, the companies have created access for large scale investments with minimum initial capital; people are lured to go for it. Finally, the supply of goods and services has increased, but the demand for goods and services has not increased much. So the competition among suppliers has decreased the profit margin. So the people who started the business with the support of leasing and loans struggled to pay their monthly installments. This has made the leasing companies to revert the leased asset from the customer. So the customer lost both their business and the asset. When the situation worsens, people started escaping from the area even contemplating ways of migration, legal or illegal. Further, some have attempted suicide and some have even died on this reason. The unexpected increases of investment in some industries and services created surplus in the market and then reduced the price and profit. This situation caused many socio-economic problems. So this situation has created problems for both sides that the leasing companies couldn't perform in the area as they expected and the people are also disappointed as they have lost their capital. There is a strong criticism against the leasing companies as they charge higher rate of interest and push the lessee in trap and put their life in danger. This issue has become a burning issue and led for many social issues in Jaffna District.

Information on the socio-economic impact of finance and leasing activities on people in Jaffna is scarce. In a society resurging after a long war, such information is very important to generate effective development guidelines. In light of these problems the study aims to understand the socio-economic impacts of leasing activities in Jaffna District. The leasing companies are functioning with the motive of maximizing profit thus all their activities are

geared towards that goal. In this process, the lessees are being benefited on one side as they could be able to access finance for their intention. The intention of high profit from the leasing companies and the intention of lessees for maximum benefit or satisfaction from the financial services obtained are flowing in two different directions. It is very difficult to find the balance in between these two. But there is a possibility for both of these different intentions being achieved indirectly and it could create or produce positive impact on socio – economic elements. Since this has been identified as one of the major issues and causes for many socio-economic problems, A study should undertake to find out the exact reasons on this issue and to propose ways and means to overcome the issue. The need for a formal research to study the socio-economic impact on leasing activities has arisen. Apart from the research conducted by the Central Bank of Sri Lanka, very few studies on leasing and leasing companies have been conducted in Sri Lanka. There were limited studies conducted on vehicle leasing in a socio-economic condition where it is coupled with conflict affected area.

In general leasing has been considered as “the last financing resort” from a crisis (Krishnan and Moyer, 1994). Dragica et al. (2015) studied on the arrangements for leasing as key source for financing the business entities in the Republic of Macedonia. The study has found that leasing as a new form for the business entities to fulfil their financial needs. But the level of presence is relatively at low level. Olatunji and Sarat (2014) studied equipment leasing as a source of finance for Small and Medium Scale Entrepreneurs (SMSE) in Nigeria. The research paper has looked into the fundraising initiative through the leasing activity to fulfill the needs of equipment and machineries. This mechanism was found to be the best one, purchasing the equipment and machineries by paying direct cash to carry out the operations will have much effect on the working capital. The literature review on the related studies has really helped to clearly understand and propose suitable ideas on the concept, types and the regulations of the central bank on leasing for the SMSEs in the study area. The study has also found that the equipment leasing is supreme to the existence of organizations and the Central Bank of Nigeria gave the rules to encourage the SMSE through equipment leasing.

Deghaye-Filareto and Severin (2007) have conducted the following study: “study on the determinations of leasing choice and bank loans: the evidences were brought from the French SME by KACM.” The study aimed to determine the features of the firms which are using the leasing credit and to understand the relationship between the leasing and credit rationing in a better way. The variables used in this study were probability of bankruptcy, solvability, firm size, age and leverage. The study found that the SME use leasing when they are at a very younger stage. Further, the leasing thrusts back the boundaries of banking debt for the firms which do not have access to it. Based on the results the study has suggested a solid and substantial association between credit rationing and the use of leasing. Mohajan (2011) studied the lease financing in Bangladesh mainly focusing on the satisfied progress in business and industrialization. It was needed to develop leasing business in Bangladesh to ensure convenience and flexibility in financing. Winfred (2014) has studied on the

outcome of lease financing on the financial performance among the companies which are listed at the Nairobi Securities Exchange (NSE). The overall findings of the study have shown that there is no influence from lease financing on the financial performance. Based on the findings the study has recommended that the firms should be more vigilant when they use lease financing to fulfill their financial needs as there are no value added to the firms through the use of lease financing. Helmut and Lang (2012) have studied the importance of leasing for small and medium enterprises (SMEs) financing for leasing as an integral part of the financing tool set. The study has specifically focused on finding out the extent of the SMEs use leasing as the method to fulfill their financial needs. It was also found that the importance of leasing, hire purchase and factoring are increased when comparing with the year 2009. The study has confirmed that the SMEs have given relatively high importance for leasing among all the external financing sources. According to the study findings, leasing was found as the most popular external financing source and this particular source was used by more than 40% of the sampled SMEs. The bank loans were used as the second most important external financing source.

Kampumure (2009) has studied on the standard of leasing by focusing on the competence, lease structure and seeming performance of the small and medium-sized enterprises (SMEs) in Uganda. The SMEs sector in Uganda is holding a significant percentage and contributing immensely to the economy of Uganda. This particular sector makes up around ninety percent (90%) of the private sector and contribute two third of the income of the country. The study has found that the current financing gap experienced by SMEs in Uganda has been bridged through leasing. It was also found the efforts that have been made in the country to improve the leasing capabilities of SME to minimize the closure. The researcher has made the following recommendations based on the findings of the study to further improve performance of SMEs. The leasing competencies of SME Managers need to be improved. There should be a law to be imposed to regulate and govern the leasing transactions in the country. Also a tax exemption needs to be given for the SMEs that lease finance their assets in Uganda.

## 2. METHODOLOGY

The customers who obtained leasing facility from the leasing companies were selected through "Snowball Sampling Method." 10% of the leasing clients from the sampled leasing companies were taken as sample for the research. 331 leasing clients were selected for this study. According to the sample, information gathered from ten leasing companies with the representations from all the four categories. The detailed field survey questionnaire with open-ended and closed questions was used as the main tool to gather information from 331 leasing clients representing the district. Statistical analyses were conducted with the data to measure the socio-economic impact of leasing activities in Jaffna District. The descriptions of variables used in this analysis were given in Table 1. To study the impact of leasing on income and family expenses multiple regression models were developed using ordinary least squares technique. Probit models were developed to analyze the factors that influence the default of leasing.

### 2.1. Model for Change in Income

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_7 + \beta_8 X_8 + \beta_9 X_9 + \beta_{10} X_{10} + \beta_{11} X_{11} + \beta_{12} X_{12} + \epsilon$$

Where, Y – Change in Income, X1 – Age, X2 – Gender, X3 – Education, X4 – Self Employment, X5 – Initial Income, X6 – Marital Status, X7 – Value of Lease, X8 – Period of Lease, X9 – Leasing Rate, X10 – Type of Investment, X11 – Usage of Investment, X12 – Sector of Business,  $\epsilon$  - random error

### 2.2. Model for Change in Family Expenditure

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_7 + \beta_8 X_8 + \beta_9 X_9 + \beta_{10} X_{10} + \beta_{11} X_{11} + \beta_{12} X_{12} + \epsilon_1$$

Where, Y – Change in Family expenditure, X1 – Age, X2 – Gender, X3 – Education, X4 – Self Employment, X5 – Initial Income, X6 – Marital Status, X7 – Value of Lease, X8 – Period of Lease, X9 – Leasing Rate, X10 – Type of Investment, X11 – Usage of Investment, X12 – Sector of Business,  $\epsilon$  - random error

### 2.3. A Probit Model was Estimated to Study the Factors that Influence the Default of Leasing

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_7 + \beta_7 X_7 + \epsilon$$

Where, Y = default of leasing or not, X1 – Initial Income, X2 – Asset, X3- Value of Leasing, X4 – Period, X5 – Debt, X6 – Change in Income, X7 – Change in Expenses

## 3. RESULTS AND DISCUSSION

The data collected through the field survey was analyzed by the sectors where the leasing activities were involved. There were three major sectors involved and those are; agriculture, industries and service. The findings show that 72.8% of the sampled leasing clients have obtained the leasing facilities for the engagement in the service sector where the agriculture sector was second with 16.9% and the least percentage was on the industries with 10.3%. In the service sector high numbers of leasing facility was obtained for mini taxis where it was 35.6%. The second highest numbers of leasing facilities were obtained for mini transport and it was 28.1% and the least leasing facilities were obtained for the large passenger transport.

### 3.1. Model for Change in Income

The model developed for the change in income is presented in Table 2. There were twelve independent variables considered in this model.

Coefficient of value of leasing is positive and significant at 5% level. It implies that leasing positively influence on the income. Coefficient of value of leasing (0.0146) in the change of income indicates that LKR 100,000 increase in the value of leasing averagely increases the monthly income by LKR 1500 while other things equal. This is return to the value of leasing and it is more than the prevailing interest rate. Coefficient of self-employed (17,204) is positive and significant at 5% level. It indicates that on average change in monthly income of those who got lease and are self-employed is 17,204 rupees higher than the change in

**Table 1: Description of variables**

Variable	Description	Unit
Change in income	Change in monthly income after obtained lease	LKR
Change in family expenses	Change in monthly family expenses after obtained lease	LKR
Default	1 if reverted leasing facility, 0 if not reverted leasing facility	Dummy value
Age	Age of lessee	Years
Gender	1 if lessee is male, 0 if lessee is female	Dummy value
Education	Formal education level of lessee	Years
Self employment	1 if lessee is self employed, 0 otherwise	Dummy value
Initial income	Monthly income before obtained lease	LKR
Marital status	1 if married, 0 if unmarried	Dummy value
Value of lease	Value of leasing facility	LKR
Period of lease	Period of leasing facility	Months
Leasing rate	leasing rate for leasing facility	Percentage
Type of investment	1 if new engagement, 0 if existing engagement	Dummy value
Usage of investment	1 if own use, 0 if income generation	Dummy value
Sector of business	1 if Service sector, 0 if other sectors	Dummy value

**Table 2: Model for change in income**

Variable	Coef.	t	P>t
Age	283.0633	1.69	0.093
Gender	1667.602	0.32	0.747
Education	-1835.22	-2.43	0.016
Self employed	17204.67	2.53	0.012
Initial income	0.070323	2.9	0.004
Married	-23960.5	-7.35	0
Value of leasing period	0.014667	7.58	0
Leasing rate	-543.833	-3.9	0
Type of investment	-991.127	-2.75	0.006
Sector of business	-3700.85	-0.85	0.395
Self emp* type of usage	-215.175	-0.06	0.953
_cons	11447.84	3.62	0
	66143.86	3.74	0

Source: Results on model for change in income

income of those who got lease and are employed in government, private and NGOs. Coefficient of interaction of self-employed and type of usage (11,447) is positive and significant. It indicates that on average change in monthly income of those who got lease, self-employed and used the lease for own business is 11,400 rupees higher than change in income of those who got lease, self-employed and not used in own business. It implies that on average change in the monthly income of those who got lease, self-employed and used lease for own business is 28,600 rupees higher than change in the income of those who got lease and not self-employed and not used in own business.

As expected, Coefficient of repayment period (-543.833) and leasing rate (-991.127) are negative and significant at 5%. These variables are negatively influence on the monthly income of lessee.

As expected, coefficient of education level (-1835.22) is negative and significant at 5% level. It implies that on average change in monthly income of those whose education level is low and mostly self-employed after leasing is 1850 rupees higher than those whose education level is high and employed before leasing. The coefficient of initial income (0.070323) is positive and significant at 5% level. It shows that initial income positively influences the change in monthly income. The coefficient of marital status (-23960) is negative and significant at 5% level. It indicates that on average change in monthly income of those who are unmarried

and got lease is 2300 rupees higher than change in income of those who got married and got lease.

### 3.2. Model for Change in Family Expenses

The model developed for the change in family expenses is presented in Table 3. The Table 3 shows the coefficients of independent variables and its significance.

The coefficient of value of leasing (0.005284) is positive and significant at 5% level. It indicates that on average when value of leasing increase by 100,000 rupees, a family's expenses increase by 528 rupees while other things equal. The coefficient (6899) of type of investment is positive and significant at 5% level. It implies that on average the monthly family expenses of those who got lease to start business is 6900 rupees higher than the monthly family expense of those who got lease to expand their existing business. The coefficient of self-employed (-7894) is negative and significant at 5% level. It shows that on average the monthly family expenses of those who got lease and self-employed is 7900 rupees lower than those who got lease and employed in Private, Government and NGO sector. The coefficient of interaction of self-employed and usage of investment (8213) is positive and significant at 5% level. It indicates that on average the monthly family expense of those who got lease, self-employed and used the lease in their own business is 8000 rupees higher than the monthly family expense of those who got lease, not self-employed and not used the lease in their own business. The coefficient of sector of business (5122) is positive and significant at 5% level. It implies that on average monthly family expenses of those who got lease and invested in transport sector is 5100 rupees higher than the monthly family expense of those who got lease and invested in agriculture and other sectors. The coefficient of age is negative and significant at 5% level. It shows that lessee's monthly family expenses decrease with the age.

### 3.3. Model for Default Rate of Leasing

The model developed for default rate of leasing is presented in Table 4. Seven independent variables influencing the default rate of leasing included in this model. The coefficient and marginal effect of each independent variable were presented in this Table 4.

Coefficient (-6.28E-06) and marginal effect (-2.43E-07) of value of leasing in the taken back (Seized) model is negative and

**Table 3: Model for change in family expenses**

Variable	Coef.	t	P>t
Age	-226.072	-3.56	0
Gender	1768.325	0.91	0.365
Education	23.32944	0.08	0.935
Self employed	-7894.65	-3.07	0.002
Initial income	0.011094	1.21	0.227
Married	-543.949	-0.44	0.659
Value of leasing	0.005284	7.22	0
Period	75.69143	1.43	0.152
Leasing rate	-31.653	-0.23	0.816
Type of investment	6899.903	4.2	0
Sector of business	5122.089	3.69	0
Self emp* usage of investment	8213.098	6.87	0
_cons	-1633.12	-0.24	0.807

Source: Results on model for change in family expenses

**Table 4: Model for default rate of leasing**

Variable	Coef.	dy/dx	z	P>z
Initial income	-0.00055	-2.1E-05	-4.64	0
Asset	-1.13E-06	-4.39E-08	-7.45	0
Value of leasing	-6.28E-06	-2.43E-07	-4.82	0
Period	0.281684	0.010927	5.04	0
Debt	1.61E-06	6.24E-08	4.84	0
Change in income	-6.5E-05	-2.51E-06	-3.46	0.001
Change in expense	0.000364	1.41E-05	3.37	0.001
_cons	8.472486			

Source: Results on model for default rate of leasing

significant at 5% level. It indicates that 100,000 rupees increase in the value of leasing decrease the probability of being taken back by 2.4%. Coefficient (0.281684) and marginal effect (0.010927) of period in this model is positive and significant at 5% level. It implies that a 10-month increase in the period increases the probability of being taken back by around 10%. The coefficient (1.61E-06) and marginal effect (6.24E-08) of debt is positive and significant at 5% level. It shows that 100,000 rupees increase in the debt increase the probability being taken back by 0.6%. The coefficient (-6.5E-05) and marginal effect (-2.51E-06) of change in income is negative and significant at 5% level. It indicates that 10,000 rupees increase in monthly income reduce the probability being taken back by 2.5%. The coefficient (0.000364) and marginal effect (1.41E-05) of changes in expenses is positive and significant at 5% level. It implies that 10,000 rupees increase in monthly family expenses increases the probability being taken back by 14%.

#### 4. CONCLUSION

The study concludes based on the findings that on average the leasing activities have positively contributed to lessee's income and family expenditure in Jaffna District. The higher amount of debt, increase in family expenses due to leasing and longer period to repay the leasing increase the probability of revert the leased facility. Higher Initial income, higher amount of assets and

increase in income due to leasing decrease the probability of revert the leased facility. The increase in the value of leasing decrease the probability of revert the leased facility. The value of leasing beyond certain amount could generate more income and decrease the probability of revert the leased facility. On average change in the monthly income of those who got lease, self-employed and used lease for own business is 28,600 rupees higher than change in the income of those who got lease and not self-employed and not used in own business. On average change in monthly income of those who got lease and are self-employed is 17,204 rupees higher than the change in income of those who got lease and are employed in government, private and NGOs. On average, family expenditure increased by leasing is greater than the income increased by leasing because most of the lessees are economically marginalized. Therefore, there is higher possibility to get default but increase in leasing amount decrease the default rate.

Leasing had greater positive income effect on self-employed clients using leasing in their own business. It was found that the leasing companies are charging very high interest rate and penalty on delayed installments. Leasing companies need to assess the client's potentials and repayment capacity before offering leasing facility. Leasing companies should provide more grace period when the clients are in trouble. It is recommended to offer more leasing facilities to other sectors such as fisheries, agriculture and industries.

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