APPLICATION OF NIE APPROACH IN EXAMINING ACCESSIBILITY AND EFFICIENCY OF FORMAL[§] AND INFORMAL[**] CREDIT INSTITUTES IN SINDH

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Abstract

New Institutional Economics (NIE) introduces analytical concept of identifying and examining constraints that underpin efficiency of institutes in terms of price of commodity and delivery of services rendered by them. NIE evolves around transaction costs; and relates linkages between the performances of institutes resulting from imperfect market information. Agricultural credit both formal and informal (i.e., public and private) lending institutes in Pakistan are subject to inefficiencies in terms accessibility to farmers especially the small ones; and kickbacks. Using probability sampling methods both formal and informal credit lending institutes were selected to assess their effectiveness in reaching among the poorest of the poor in the province of Sindh. The paper uses regression analysis to draw valid statistical generalizations for policy conclusions and recommendations.

Key words: New Institutional Economics; Rural Financial Markets; Formal and Informal Institutes; NGOs; Efficiencies; and lending

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§ Private money lender; Relatives; Non Government Organizations

** Public Institutes such as *Zarai Taraqiatee Bank* and Commercial Banks

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Introduction

This research aimed at examining the performance of both formal and informal financial markets in Pakistan. The conceptual framework of New Institutional Economics (NIE) was used as the model for analysis and performance comparison purposes. This model has been derived from recent developments in the field of economics. Broadly, the NIE model suggests that inefficiencies at institutional level have negative impact on the efficiencies. Consequently, the equilibrium price intersecting demand and supply curves is not realistically reflective of the price of goods and services in the market. One of the causes towards under performance of institutions is the transition cost. The transaction cost is charged high due to this the institutions tend to perform low in terms of services delivered. These costs include cost processing documents; kickbacks; transportation costs; and etc.

The paper is divided in three parts. Part one provides research justification and presents synchronized review of literature. Part two presents research objectives; hypotheses; and research methodology. Finally part three highlights study results; conclusions and recommendations.

Conceptualization

NIE attempts to incorporate theory of institutes in to economics; It views economics as a theory of choice subject to constraints; it employs price theory as an essential part of the analysis of institutes and it sees changes in relative prices as a major force inducing change in institutes. NIE involves gathering information on the circumstances of individuals, which may not be easily available. It tries to bridge the gap that persists in neo classical economies by placing too much emphasis on the role of institutions. Contrary to this, new classical economics largely focuses upon the scarcity of resource & market competition. NIE takes transaction cost as a major factor in determining the performance of a market and the extent of

competition. This research intended to examine the performance of both formal and informal credit institutions in Pakistan.

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Research Methods & Study Parameters

A combination of approaches based upon both the probability and non probability methodologies is used to validate research propositions. Non probability approaches are based upon in-depth interviews with respondents. For this purpose a checklist was used. The objective was to overcome the shortcomings that might accrue, when respondents are interviewed on only scientific methods. The scientific methods comprise a close ended interview. In this regard 225, respondents characterized by formal, informal, profession, type of organization, Age and experience was used as statistical sample for testing research proposition. Table 1 shows distribution of sample respondents by key divisions.

Table 1: Sample Respondents by Source of Lending

SNO	Formal Lending Source		Informal Lending Source	
	Institution	**Sample**	**Institution**	**Sample**
1	ZTBL	56 (65)	Money Lenders	43 (31)
2	HBL	15 (17)	Shopkeepers	20 (14)
3	NBP	10 (12)	SAFWCO	60 (43)
4	ABP	5 (6)	SRSP	16 (12)
	All	**86**	**All**	**139**

Note: Figures in () are in Percent

Study Results and Findings

Regression Analysis (tables 2-4) provides the estimation about changes in Y (i.e., Loan received in Rupees) in relation to changes in the independent variables. Results, demonstrated that on the whole 72 percent changes in Y (i.e., loan borrowed from all sources) is subject to land ownership patterns, cost of loan; kickbacks and other forms of illegal payment paid by the respondents. These findings could easily be related with the performance of formal sector as they tend to pay loans on the basis of area owned and respondents willingness to pay extra charges in the shape of service charges and etc. The values are estimated that at 95 percent confident intervals and Durban Watson at 1.49.

Results, show that in case of informal credit significant mean difference could be found in land owned, land cost, the F value at 98.4 and probe value at 0.00. Analysis shows co-linearity statistics and t values by formal and informal categories. T- Value is significant at 95% Confident Interval and with co-efficient at 64 in case of formal credit and 57 in terms of informal credit lender. It is revealed that though all factors are important and have statistical influence on dependent variable but size of land holding seems to have even greater influence. When it comes to acquire loan irrespective of formal or informal loans, the possession of land by the

respondent is must. This confirms the supposition that the ownership of land is vital. For example, in case of formal lending, land is used as collateral on the basis of which scale of lending is determined by the institutes. Contrary to this, in the informal sector of social collateral is preferred for lending credit to borrowers. The fact that the landless and small farmers lack access over land holdings, these tend to seek borrowings from the informal institutes such as, money lenders and NGOs. The regression equation and results are narrated as below.

Equation

Y=(x1+x2+x3+x4……e)

Where,

Y= Loan Received in Rupees
X1= Type of Institution Dummy 1= Formal 0= other i.e. Informal
X2= Land Owned in Acres
X3= Kickbacks
X4= Interest on loan in Rupees
e = disturbance terms denoted by error

Table 2: Model Summary (e f) - Multiple Regression Analysis: OLS

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson Statistic	
	SOURCE1 < 3 (Selected)				SOURCE1 < 3 (Selected)	SOURCE1 >= 3 (Unselected)
Formal	.643a	.613	.410	166904.85		
Informal	.686b	.670	.465	158949.03		
All	.713c	.7208	.501	153512.04	1.493d	.

a Predictors: (Constant), Land owned

b Predictors: (Constant), Land owned, LOANCOST

c Predictors: (Constant), Land owned, LOANCOST, INTEREST

d Not computed because there is no residual variance.

e Unless noted otherwise, statistics are based only on cases for which SOURCE1 < 3.

f Dependent Variable: TOT_LOAN

Table 3: ANOVA

Model		Sum of Squares	DF	Mean Square	F	Sig.
Formal	Regression	4370763843411.343	1	4370763843411.343	156.899	.000a
	Residual	6212162156588.660	223	27857229401.743		
	Total	10582926000000.000	224			
Informal	Regression	4974141717119.870	2	2487070858559.933	98.440	.000b
	Residual	5608784282880.140	222	25264794067.028		
	Total	10582926000000.000	224			
All	Regression	5374852107975.220	3	1791617369325.072	76.026	.000c
	Residual	5208073892024.790	221	23565945212.782		
	Total	10582926000000.000	224			

a Predictors: (Constant), Land owned

b Predictors: (Constant), Land owned, LOANCOST

c Predictors: (Constant), Land owned, LOANCOST, INTEREST

d Dependent Variable: TOT_LOAN

e Selecting only cases for which SOURCE1 < 3

Table 4: Coefficients (a b)

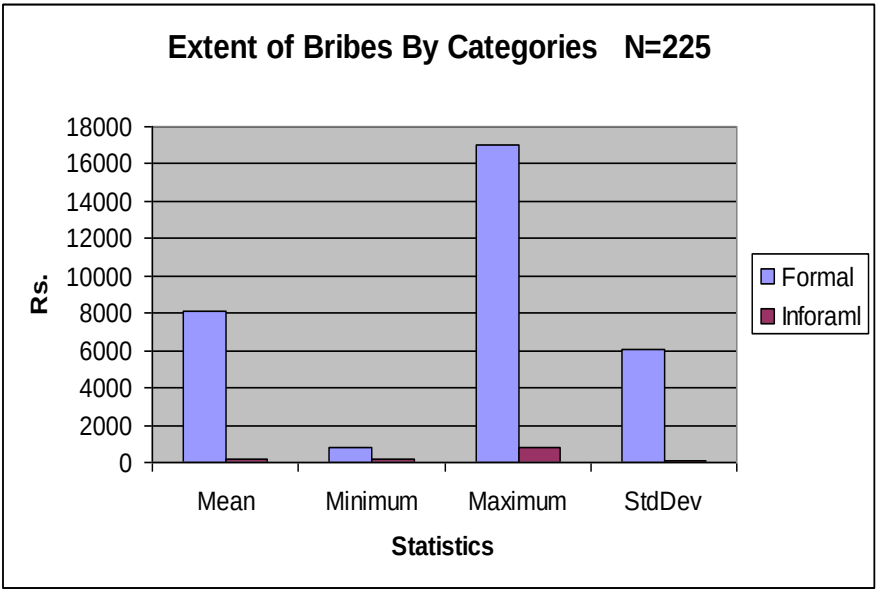
			Standar-dized Coeffici-ents	t	Sig.	95% Confi-dence Interval for B		Co linearity Statistics	
Model		Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
Formal	(Constant)	12450.07		7.778	.000	72305.476	121375.165		
	Land owned	29.523	.643	12.526	.000	311.621	427.980	1.000	1.000
Informal	(Constant)	12916.92		5.558	.000	46338.286	97249.261		
	Land owned	29.166	.577	11.379	.000	274.408	389.364	.929	1.076
	LOAN COST	2.049	.248	4.887	.000	5.975	14.050	.929	1.076
All	(Constant)	40479.56		-2.149	.033	-166777.250	-7226.536		
	Land owned	28.365	.553	11.216	.000	262.251	374.052	.916	1.091
	LOAN COST	2.350	.377	6.485	.000	10.608	19.870	.659	1.518
	INTEREST	1226.851	.231	4.124	.000	2641.177	7476.827	.708	1.413

a Dependent Variable: TOT_LOAN
b Selecting only cases for which SOURCE1 < 3

The analysis on parameters such as, formal lending policy; markup charged by both formal and informal institutes; process of application; farm size of holding and extent of hidden charges show some interesting findings (figure1and 2 highlight scale of bribes and transaction costs). Land ownership patterns in Pakistan are highly un-skewed as small proportionate of farmers tend to own largest agricultural crop land. Some recent figures show the approximately 68 percent of land was owned by less then 20 percent of total farms. This has significant impact over the accessibility over formal credit.

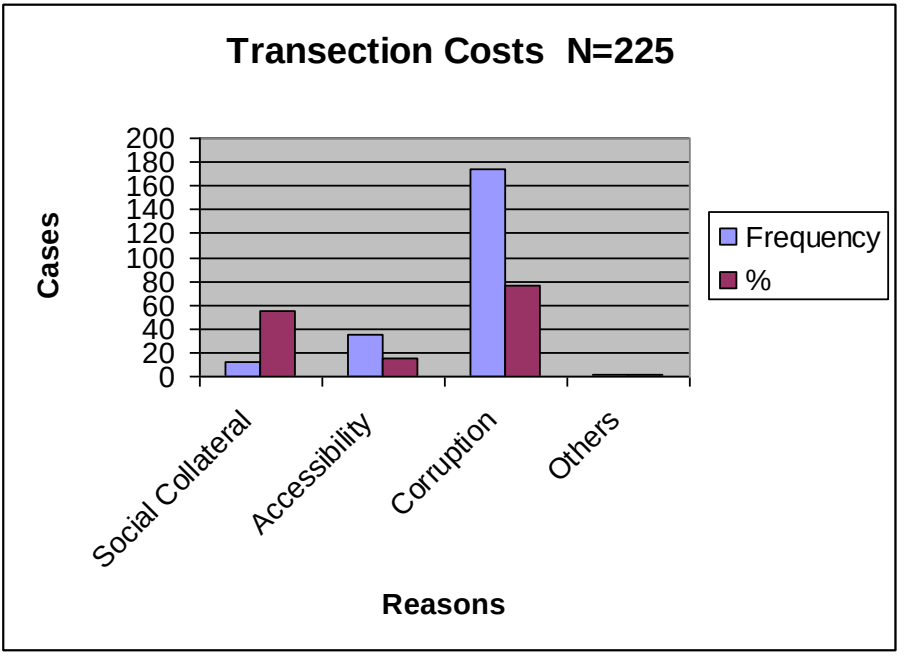
For example, remaining 80 percent of landowners because of size of their holding had significantly less access over formal credit.

Figure 1



Data reveals that varying i.e. 2 percent of net crop incomes in the case of formal lending and 1 percent of net crop incomes in the case of informal lending. Transition cost is charged by both formal and informal lending institutions. Approximately, 87 percent respondents under small holding category reported that collateral; bureaucratic policy; corruptions and transaction costs were the major impediments that deprived them from seeking formal credit. It was seen that the incidents of corruptions were common in both forms of lending. However, mean amount paid by both categories showed significant variations as farmers under formal lending paid significantly high sums of money to that of those who acquired lending from informal institutions.

Figure 2



Conclusion

The essential idea of the New Institutional Economics (NIE) is that the success of a market system is dependent upon the institutions that facilitate efficient private transactions. The NIE does not assert that neoclassical theory is wrong, but simply that it is incomplete. When institutions work well, they can be largely ignored for economic analysis and standard neoclassical arguments remain valid. However, when institutions work poorly, they must be considered explicitly. The synthesized review demonstrated that the agricultural credit sector, especially formal lending was not performing well; equitable access over it has been always a debate and transaction cost was charged high. It was beyond the reach of small borrowers. Therefore, formal credit benefited less to small holders to that of the large ones. It is also suggested that the informal sector charges significantly higher mark ups but because of the fact the other cost under transaction costs such

as the collateral and etc are significantly low, the poorer tend to seek credit for the informal sector even though cost of loan deducing transaction cost are low in the case of formal credit. All out efforts be made at policy levels to ensure that formal sector meets the demand at all levels.

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