

Proximal Relationship between Financial Access and Completed Educational Level in India

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ABSTRACT

Availing of financial services like credit, deposit, payment and insurance are depending upon the ability of an individual and it is believed that this ability can be molded or shaped or influenced by education obtained through schools and colleges. Existing literature provide evidences on the role of education on livelihood, financial outcomes, financial choices and so on; also evidences for lower education leading to lower level of financial knowledge, behaviour and attitude and ability to take financial decisions. Therefore this study is done with a view to find out whether education helps to have greater financial access or not. ANOVA, Post- hoc, Chi-square test and correspondence analysis are employed to capture the proximal relationship. It is found that higher educational attainment leads for greater financial access. It is suggested that in order to ensure greater financial access education and higher level of education should be provided to all.

Keywords: Financial literacy, financial capability, financial services, financial access.

INTRODUCTION:

Financial access is the ability to obtain financial services including credit, deposit, payment, insurance and other risk management services. If an individual have no or only limited access are is called as unbaked or under banked. Financial access promotes economic growth and reduces income inequality and poverty. Lack of financial access limits the services and credits to households and small businesses. They need to rely on personal wealth or internal sources to invest in their education and businesses; which in turn lead to persistent inequality and diminished growth. Access to finance varies greatly between countries and ranges from about 5 percent of the adult population in Papua New Guina and Tanzania to 100 percent in the Netherlands (List of countries with scores can be seen in Finance for all; by Demirgüç-Kunt, Beck, & Honohan, 2008, pp. 190–191). Many reasons are cited for low financial access among the poor; from individual (demand) side it may be due to lack of education and knowledge needed to understand financial services, lack of collateral and inability to borrow against future income from institution (supply) side, unprofitable proposition to serve the small credit needs, and location of financial institutions in richer neighborhoods. Education enriches the people's understanding of themselves and the world. It improves the quality of their lives and leads to broad social benefits to individuals and society. Human development approach; a new approach is initiated for advancing human well being. This approach is focused on people, their opportunities and choices. In practice most policies focus on one or several components of human development, the approach itself is potentially broad. It is about education as much as it is about health (Deneulin and Shalini, 2009). Therefore it is obvious that human development is possible only with education.

Sen's theory of development as an expansion of capabilities is the starting point for the human development approach – the idea that the purpose of development is to improve human lives by expanding the range of things that a person can be or do. According to the capability approach, the ends of well-being freedom, justice, and

development should be conceptualized in terms of people's capabilities. Capabilities are a person's real freedoms or opportunities to achieve functioning (Sen, 1999). Functioning are beings and doings i.e., various states of human beings and activities that a person can undertake. The capability approach involves "concentration on freedom to achieve in general and the capabilities to function in particular" (Sen, 1995). The capability approach covers the full terrain of human well being; and it regards development and well being as a comprehensive and integrated matter. The human development approach also stresses the same thing. According to it, human development is much more than economic growth; it is only a means of enlarging people's choices.

Fundamental to enlarging these choices is to build human capabilities i.e. the range of things that people can do or be in life. The most basic capabilities for human development are: to lead long and healthy lives, to be educated, to have access to the resources and social services needed for a decent standard of living and to be able to participate in the life of the community. From this it is obvious that education in itself is a capability which has to be acquired and developed. Without this no other capability can be developed. The objective of education must be geared towards enhancing capabilities and enlarging choices and developing agency by building dimensions of well being. The education one pursues modifies one's behaviour, changes his attitudes, enhances the skills and makes him capable in a versatile way. Financial capability is one such thing a person should possess. It is a state leading to financial well being in everyone's life which results in psychological well being and to happiness (Sen, 1993). To reach such a stage of well-being through financial capability, it is conceptualized that the move must be from knowledge to skills to attitudes to behavior. Financial capability is comprised of four components namely knowledge, influences, access and action. Financial access is the ability of an individual to know, use and get benefits from financial services like credit, deposit, payment and insurance. This ability can be enhanced and enriched through education; education is an act or experience that has formative effect on the mind, character or physical ability of an individual. According to C.V. Good education is the aggregate of all the processes by which a person develops ability, attitudes and other forms of behavior or practical value in the society in which he lives. In simple terms, education is a process by means of which the individual develops ability, attitude, behavior and creative social values.

REVIEW OF LITERATURE:

Good number of studies and report are available on financial literacy and financial capability and also the guidelines and suggestion for better research on these areas are provided by OECD. Research studies to link the role of education to financial services are minimal and particularly to financial access are scarce. Existing literature on role of education spreads to varieties of areas namely role of education on financial literacy, financial outcomes, financial choices and livelihoods. Russell Cooper and Guozhong Zhu (2014) through life-cycle model assessed that education affects household finance through increased average income. They have also provided evidences on education specific differences in income risks, medical expenses and mortality risks. Cole. S, Paulson A, Shastry G.K (2013) showed that education increases financial market participation and reduces the probability of an individual declaring bankruptcy, experiences a foreclosure or is delinquent on a loan. Teasdale. B, Tokai.E and Dr Puamau.P (2005) re- conceptualized the strategic planning and implementation of education in Oceania and developed principles to guide curriculum reforms with particular attention to programs in the field of literacy and livelihoods. Annamaria Lusardi (2008) has studied about financial illiteracy and found that low education has lead for low level of literacy. Impact of financial literacy on financial access was studied by Isaac M and Evelyne N (2012) and found that households access to financial services is not based on levels of financial literacy but it is based on income levels, distance from bank, age, marital status, gender, household size and level of education. These studies provide evidences on the important role played by education on livelihood, financial choices, financial outcomes and financial literacy. Also it is noted that knowledge, behaviour and attitude towards financial decision and financial services are low due to lack of education. Therefore this study makes an effort to add to the existing literature by taking one of the Union Territories of India namely Puducherry, India. This study entitled "proximal relationship between education and financial access" is done with a view to find out whether education obtained through schools and colleges helped them to be equipped to have greater financial access. This is expected to help policy makers to formulate educational policies if it is required to improve cognitive ability of an individual through education and to empower them with financial skills for their long term well-being.

DATA AND METHODOLOGY:

The Union Territory of Puducherry in India, comprises of two districts of Puducherry and Karaikal with a total population of 12,47,953 as per 2011 census. Puducherry district comprises of Puducherry region and two

outlying administrative units of Mahe and Yanam. Only Puducherry region consisting of Ozhukarai, Puducherry, Bahour, Nettapakkam, Ariankuppam, Mannadipet and Villianur with total population of 9,50,289 is considered in this study. The residents of the seven communes of Puducherry region consisting of Ozhukarai, Puducherry, Bahour, Nettapakkam, Ariankuppam, Mannadipet and Villianur form the population of the study. Simple random sampling method was used to collect data from these areas of Puducherry region consisting of Ozhukarai, Puducherry, Bahour, Nettapakkam, Ariankuppam, Mannadipet and Villianur. Sample size was determined through web calculator provided by www.raosoft.com for the given 5 percent margin of error, 99 percent confidence level and 50 percent response distribution. It is identified that the highest sample size is 384 (For population of 300104 from Ozhukarai) and the lowest is 382 (For population of 51718 from Nettapakkam). The sample size for whole Puducherry district is 384 (For population 950289). It is identified that minimum sample size required for the given population of 950289 is 384 but the researcher made efforts to increase the sample size and as a result total sample collected and considered in this study is 637. This forms the sample for the study. The residents' names and addresses were collected from the Directorate of Census Operation, Puducherry for all the seven communes.

The method adopted for the study was household survey. The researchers personally collected the data meeting the respondents in their respective houses of seven communes considered in the study. This study considered the structured questionnaire of OECD (Organization of Economic Cooperation and Development) used in 14 countries across 4 continents. It also considered the methodological guidance developed by the International Network on Financial Education (INFE) as the basis for questionnaire.

Questionnaire was designed to cover education and major aspects of financial literacy including financial knowledge, financial behavior, financial attitude and financial access to get financial capability. The survey respondents were asked to answer 43 questions including eleven questions on demographic data, eight questions on financial knowledge, eight questions on financial behavior, five questions on financial attitude, five questions on financial access and six questions of their opinions and decisions.

SCORING PROCEDURE:

- i. This study considers educational status like secondary education, higher secondary education, under graduate degree, post graduate degree, Diploma, obtained by people by attending schools and colleges.
- ii. Values of 1 for correct response and 0 for all other cases were assigned to the questions asked in different sections like financial knowledge, financial behaviour, financial attitude and financial access.
- iii. Individual financial access score is determined by adding all scores under access category. As a result an individual will have a minimum score of 0 and a maximum of 5. Financial access of an individual is considered to be low when the score is less than 3. The score 3 is considered as average financial access and score between 4 and 5 as high financial access.

Simple percentage and Arithmetic mean of all distributions are computed. The significance of 't' and ANOVA are computed to know whether there is any significant difference in the level of education and scores of financial access in terms of gender, locale, community, work status and income. Chi square test is used to study the association of educational status with financial access.

EMPIRICAL RESULTS:

Area from which the respondents hail from provides opportunity to learn and to get exposed to the financial matters and also chances to put into practices are very high with plenty of chances to get comments or suggestion for better dealings in financial matters. Marital status, do have influencing effect on the financial matters; married, more number of children and joint family set up may make person to spend more money than saving, also they will be under stress to invest for long term purposes. Regularity of income and its assurance would make person to be of confident in spending, investment and savings. Education plays vital role in building the confidence of person through knowledge and skill of a person in their dealings. Due to its importance and relevance these factors are considered and table 1 reveals that married, male are the dominant respondents of this study. It is worth mentioning that these respondents live in urban areas of Puducherry, with regular stream of income and higher level of financial commitments. Seventy percent of them do not have good financial access. From the demand side of respondents it is seen that respondents have knowledge about dealing with money, but they don't have high level of actions and willingness to get the successful financial dealings. It is also found that from supply side these respondents are not provided the needed financial products and services for their utilization. Descriptive statistic show that mean value of respondents with post graduate is

highest, standard deviation and standard error are lowest. It indicates that the variability is lowest within a single sample and lesser variability between samples and it is more precise of the population. Which indicate that the level of financial access is significantly different between the educational qualifications

Table No 1: Frequency distribution of demographic details of respondents of Puducherry

	Number of Respondents	Percent
Gender		
Male	429	67.3
Female	208	32.7
Age		
<30	122	19.2
31-40	150	23.5
41-50	242	38.0
51-60	108	17.0
>61	15	2.4
Marital Status		
Married	517	81.2
Unmarried	120	18.8
Income		
<10000	239	37.5
10001-30000	282	44.3
30001-60000	76	11.9
60001-90000	17	2.7
>90000	23	3.6
Completed Educational Level		
No Education	92	14.4
SSLC	199	31.2
HSC	91	14.3
Diploma	32	5.0
UG Degree	104	16.3
PG Degree	119	18.7
Level of Financial Access/Decision		
Poor Financial Access	441	69.2
Average Financial Access	112	17.6
High Financial Access	84	13.2
N	637	100

Table No 2: One way ANOVA of financial access by educational level of residents of Puducherry.

		Sum of Squares	df	Mean Square	F	Sig.
Financial Access	Between Groups	77.646	5	15.529	10.037	.000
	Within Groups	976.320	631	1.547		
	Total	1053.965	636			

ANOVA is required make a conclusion about whether the educational qualifications had an effect on the financial access. Table 2 shows the influence of education on financial access and it indicates that educated person has access to the financial products and services. The significant values from ANOVA tell us that there is a significant difference between some of the condition but it does not tell us which ones. This can be solved by conducting post hoc tests. These tests are used when we find statistical significance between conditions but don't know where the significance are. These tests are not used when the results of a one way between subjects ANOVA are not significant because there is no need. But we need to use these tests when we find a statistically significant result with the significant value is less than 0.05. Significant values in table number 3 show that most of the values are greater 0.05 but there are few values with 0.000, 0.002 and 0.004 related to

the educational qualifications of PG degree with no education, SSLC and HSC qualification and UG degree with no education and SSLC qualifications. They are significantly different in terms of financial access. The other conditions are not significantly different from one another. There is a significant difference in terms of financial access between PG and no education, SSLC and HSC; between UG and no education and SSLC qualifications of respondents. Financial access of respondents with PG degree is significantly different from respondents without education or with SSLC or with HSC and in the same way, respondents with UG degree is significantly different from respondents without education or with SSLC qualifications. It indicates that if respondents are with higher educational qualification he has high level of financial access unlike respondents with no education or low level of educational qualifications. It is derived that, in order to increase the financial access it is must to have higher qualification. It also supports the general belief that educated persons would be searching for the opportunity to save, invest and other financial opportunities for good return through his knowledge and skills acquired. People with low educational qualifications or without any educational qualifications would be waiting for opportunity to come on their way rather than searching for the better options as they do not have exposures, knowledge and skills.

Table No 3: Post Hoc Analysis - Multiple Comparison of educational qualification and financial access of respondents of Puducherry

Tukey HSD

Dependent Variable	Completed Educational Level (I)	Completed Educational Level (J)	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval		
						Lower Bound	Upper Bound	
Financial Access	No Education	Upto SSLC	-.06795	.15682	.998	-.5162	.3803	
		HSC	-.14907	.18390	.966	-.6748	.3766	
		Diploma	-.37228	.25528	.691	-1.1020	.3574	
		UG Degree	-.64632*	.17803	.004	-1.1552	-.1374	
		PG Degree	-.91377*	.17269	.000	-1.4074	-.4202	
	upto SSLC	No Education	.06795	.15682	.998	-.3803	.5162	
		HSC	-.08112	.15741	.996	-.5311	.3688	
		Diploma	-.30433	.23691	.793	-.9815	.3729	
		UG Degree	-.57837*	.15051	.002	-1.0086	-.1481	
		PG Degree	-.84583*	.14414	.000	-1.2579	-.4338	
	HSC	No Education	.14907	.18390	.966	-.3766	.6748	
		Upto SSLC	.08112	.15741	.996	-.3688	.5311	
		Diploma	-.22321	.25565	.953	-.9540	.5075	
		UG Degree	-.49725	.17855	.061	-1.0076	.0131	
		PG Degree	-.76471*	.17322	.000	-1.2599	-.2696	
	Diploma	No Education	.37228	.25528	.691	-.3574	1.1020	
		Upto SSLC	.30433	.23691	.793	-.3729	.9815	
		HSC	.22321	.25565	.953	-.5075	.9540	
		UG Degree	-.27404	.25145	.885	-.9928	.4447	
		PG Degree	-.54149	.24770	.246	-1.2495	.1666	
	UG Degree	No Education	.64632*	.17803	.004	.1374	1.1552	
		Upto SSLC	.57837*	.15051	.002	.1481	1.0086	
		HSC	.49725	.17855	.061	-.0131	1.0076	
		Diploma	.27404	.25145	.885	-.4447	.9928	
		PG Degree	-.26745	.16697	.598	-.7447	.2098	
	PG Degree	No Education	.91377*	.17269	.000	.4202	1.4074	
		Upto SSLC	.84583*	.14414	.000	.4338	1.2579	
		HSC	.76471*	.17322	.000	.2696	1.2599	
		Diploma	.54149	.24770	.246	-.1666	1.2495	
		UG Degree	.26745	.16697	.598	-.2098	.7447	
	Dunnett t (2-sided) ^b	No Education	PG Degree	-.91377*	.17269	.000	-1.3513	-.4762
		upto SSLC	PG Degree	-.84583*	.14414	.000	-1.2111	-.4806

Dependent Variable	Completed Educational Level (I)	Completed Educational Level (J)	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
	HSC	PG Degree	-.76471*	.17322	.000	-1.2036	-.3258
	Diploma	PG Degree	-.54149	.24770	.119	-1.1691	.0862
	UG Degree	PG Degree	-.26745	.16697	.377	-.6905	.1556

*. The mean difference is significant at the 0.05 level.

b. Dunnett t-tests treat one group as a control, and compare all other groups against it.

Proximal relationship between financial access and completed educational level:

Table No: 4

Dimension	Singular Value	Inertia	Chi Square	Sig.	Proportion of Inertia		Confidence Singular Value	
					Accounted for	Cum	Std. Dev	R2
1	.229	.053			.848	.848	.040	-.022
2	.097	.009			.152	1.000	.045	
Total		.062	39.547	.000^a	1.000	1.000		

a. 10 degrees of freedom

Correspondence Analysis: Summary details for level of financial access and Completed educational level of residents of Puducherry

Figure No 1: Correspondence Analysis between level financial access and completed educational level: Row and Column Points

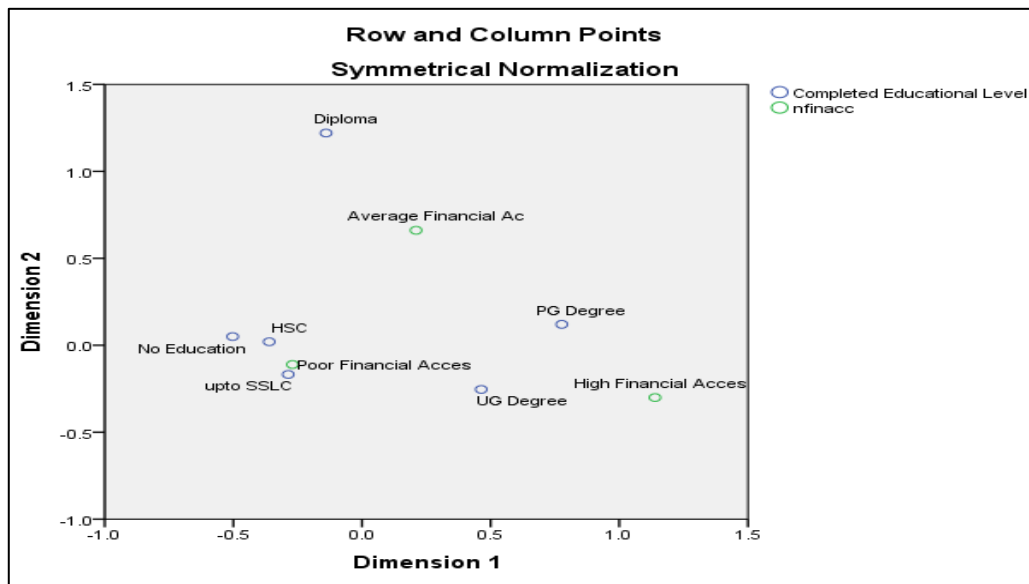


Table 4 reveals that the chi-square value is 39.547 and significance level is 0.000 and it indicates that there is a significant difference between level of financial access for respondents and their completed educational level. Therefore, it is concluded that the sample supports the hypothesis of a difference between level of financial access and completed educational level. Educated person has psychological capability and confidence to take up any unknown or uncertain things unlike person without education. Person without formal education will not be seeking or searching rather they will undertake something which is already known or told to them. The significance of association is tested by the Chi-square test, but this test provides no information as to which are the significant individual associations between row-column pairs of the data matrix. Correspondence analysis shows how the variables are related, not just that a relationship exists. Correspondence analysis is appropriate

when attempting to determine the proximal relationships among two or more categorical variables. It is seen in figure number 1 that UG and PG degree qualification are closely related to high financial access; SSLC, HSC and no education categories have close relationship with poor financial access. Above mentioned hypothesis becomes true that high educational qualification has close relation with high financial access.

CONCLUSION:

Education as expected enlarges and enhances the human capabilities including financial capability towards long and healthy lives. Financial capability includes knowledge, behaviour, and attitude towards personal financial management including the ability to choose from the available opportunities. This study through empirical evidences proves that higher level of education equipped the residents to have higher ability to have better choices and lower level of education has provided the lesser ability or poor financial access. Therefore, in order to increase the ability of choosing from the available opportunities, people expected to have higher level of education. In other words, betterment of choices is possible with higher level of education through which an individual will ensure better well- being as envisaged by Sen and others.

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