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A Study of India with Select Countries on Socio Economic Factors and Formal Credit

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Abstract

The economic development of a country is positively associated with economic well being of its people. The banking sector of all the nations is endeavoring to relax lending norms so that people resort to formal credit instead of informal credit. Further, efforts are being made to ensure that banking system is able to meet the financial needs of different sections of the society by providing timely and affordable credit. The present study is an attempt to explore whether all the socio economic groups of the society (female, male, income poorest, income richest, young adults, older adults, population with primary education or less, population with secondary education or more, rural population, in labour force and out of labour force population) resort to formal credit in the same way. Further, the study makes a comparative study to extract whether Indian banking sector performance in terms of formal credit on the basis of socio economic factors is at par with selected countries or not. The study uses independent T test to make pair wise comparison and ANOVA test to compare performance of Indian banking sector with selected countries. The study reveals that being male, rich, older adult, possessing secondary education or being in labor force significantly impact borrowings from a financial institution or using a credit card. The study also highlights that the countries in comparison to which India is reporting lower average proportion for formal credit on the basis of socio economic factors are either upper middle income countries or high income countries.

Keyword: Socio economic factors, formal credit, financial inclusion

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Introduction:

Financial inclusion has become a global agenda because it is now well recognized that a nation can prosper only if it ensures inclusive growth. Financial access and use of formal financial system, the means of financial inclusion, have positive association with inclusive growth (Levine and Demirguc-Kunt, 2008).The financial systems which are more inclusive have provided broader access to appropriate financial services to ensure that the benefit can be availed by poor and disadvantaged sections of the society (Akter, 2016). Since, financial inclusion is the process of ensuring availability of financial services and well-timed and sufficient credit as required by vulnerable groups such as low income segment and weaker segment of the society at an affordable cost (Rangarajan Committee on financial inclusion, 2005). Thus, the study of financial inclusion on the basis of socio economic factors is the key to investigate individual characteristics associated with financial inclusion (Allen, Kunt, Klapper, Peria, 2012). Understanding financial usage on the basis of socio economic factors enables framing appropriate financial inclusion strategies to achieve financial inclusion in real sense. Many international agencies like International Monetary Fund, Asian Development Bank, World Bank release data on financial inclusion around the world. Global findex report is published by World Bank after the interval of every three years to present the picture of financial inclusion on various socio economic parameters. Around the world, 74% adults, 72% female, 70% income poorest population, 63% out of labour force population and 66% rural population report to have account at formal financial system (World Bank Global findex report, 2021). The

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global findex report 2021 also reveals that only 28% adults, 27% females, 23% income poorest population, 18% out of labour force population in the world borrowed money from financial institution. Individual characteristics like higher education, more income, being older adult and being male are highly associated with more use of formal accounts and formal savings (Fungacova and Weill, 2014). Females, income poorest population, population with less education and rural population require customized financial services meeting their financial needs. For instance, gender neutral approach while framing financial inclusion policies can result in negative results (Koning, Ledgerwood and Singh, 2021). Thus, to bring females under the umbrella of financial system by fulfilling their financial needs, there is the need to understand their lives and livelihood (CGAP, 2022). In simple words, services should be tailored to customer needs to enlarge the level of uptake of financial services (Hategekimana, Kigabo, Ruhara, 2019). It will enable a nation to bring the people out of the vicious circle of poverty and hence uplift development of an economy.

Review of Literature, Research Gap and Need of the study

Review of Literature

A number of studies have been conducted all around the world on financial inclusion so that banking system and government of the countries can take necessary steps to accelerate financial inclusion. Undoubtedly, a country's banking system plays a major role in implementing social banking schemes (Gundanavvar, 1992). However, banks have not yet brought the desired outcomes to ensure basic banking services to a vast part of society (Leeladhar, 2005). Significant gaps for financial inclusion exist all around the world (World Bank Global Findex report 2014). Access to finance does not amount to inclusion by itself (ADBI, 2014). The banking system must also concentrate on the usage aspect of financial inclusion to achieve financial inclusion in the true spirit. Among socio economic factors, income inequality and rural population are found to be negatively associated with financial inclusion (Sarma and Pais, 2011) .It is also found that being a man, richer, educated and being older have positive relation with financial inclusion indicators i.e. formal account, formal saving and formal credit (Zins and Weill, 2016). Similarly, age, education, financial literacy, income, and internet connectivity have positive correlation with financial inclusion (Abel, Mutandwa and Roux, 2018). Moreover, average proportion of women availing bank credit and using mobile banking is significantly lower than men (Kandari and Salgotra, 2021). Appropriate policies and schemes for young and old age population can widen financial inclusion (Park and Mercado, 2015).

The earlier studies bring out that some of the socio economic factors like female population, rural population, less educated population and young population still need attention to bring them amid financial system. However, a limited research has been conducted in India to compare different aspects of financial inclusion on the basis of socio economic factors.

Research Gap

Borrowing from a financial institution is one of the major aspects of financial inclusion to ensure the well being of the people. There is the need to understand whether each section of the society is resorting to formal credit in order to fulfill the financial needs. As per Global Findex Report 2021, 77% adults report to have an account at financial institution. However, only 12% adults in India report to have borrowed from a bank while 31% borrowed from family or friend (Global Findex report, 2021). A very limited research has been conducted all around the world to make comparative study of different economies on the aspect of formal credit on the basis of socio economic factors. The present study is an attempt to fill the gap in existing literature by making comparative study of India with selected countries in terms of formal credit considering different socio economic factors.

Need of the Study

The study is very important from global perspective. The Sustainable Development Goals adopted by United Nations in 2015 to end poverty and ensure peace and prosperity for all by 2030 can be achieved only if the financial inclusion strategies are made by different nations in right direction. The study may help policy

makers of different nations to have an overview of formal credit availed by different socio economic factors and will enable them to frame suitable policies to enhance financial inclusion. The study may also be helpful to India to determine the countries having significantly better performance on the basis of socio economic factors in terms of formal credit. The policy makers and banking sector of India can analyse the policies and strategies adopted by such nations and chalk out better ways to encourage its people to avail formal credit.

Objective of the study

The objectives of the study are:

- To identify socio economic factors having significant influence on formal credit.
- To make country wise analysis of socio economic factors and formal credit
- To make comparative analysis of Indian Banking sector with selected countries for formal credit on the basis of socio economic factors.

Research Methodology

Selected Countries for the Study:

For the present study, the countries have been selected as per the World Bank classification of countries for the fiscal year 2017 on the basis of income as low income countries, lower middle income countries, upper middle income countries and high income countries. Total 20 countries, 5 from each classification, have been selected on the basis of availability of comparable data on different dimensions of socio economic factors of financial inclusion. The data of low income countries (Guinea, Afghanistan, Rwanda, Zimbabwe and Uganda), lower middle income countries (Bangladesh, India, Zambia, Indonesia and Kenya), upper middle income countries (Malaysia, Dominican Republic, Botswana, Namibia and Thailand) and high income countries (Chile, Estonia, Hungary, Poland and Latvia) has been used for the study.

(b) Sources of Data Collection: The study uses secondary data which has been extracted from Global Findex database of World Bank. World Bank releases global findex database after the interval of every three years. The first global findex database was published in the year 2011 and then in 2014, 2017 and 2021.

Socio economic factors used:

The socio economic factors used for the study are female population, male population, income richest population, income poorest population, population with primary education or less, population with secondary education or more, rural population, in labour force population, out of labour force population, young population and older adult population.

Statistical tool and package used:

To accomplish the objectives of the study, appropriate statistical techniques have been applied. Independent T test is used to study the impact of socio economic factors with borrowings from a financial institution or use of credit card. Further, ANOVA and Post hoc Tukey test is used to make comparative study of socio economic factors impacting borrowings from a financial institution or use of credit card in selected countries. SPSS software has been used for analysis of data.

Results, Interpretation and Discussions

Identification of socio economic factors having significant influence on formal credit

Table 1 gives descriptive analysis of borrowings from a financial institution and use of credit card details for different socio economic variables. The impact of selected socio economic factors on borrowings from a financial institution and use of credit card is examined using independent sample t test. The following hypothesis is examined:

H0:"Socio Economic factors do not significantly influence financial inclusion through borrowings from a financial institution and use of credit card"

The results reported in table 1 reject the null hypothesis that *"Socio Economic factors do not significantly influence financial inclusion through borrowings from a financial institution or use of credit card"*. In case of

gender, average proportion of male population who borrowed from a financial institution or used a credit card (19.227%) is found to be significantly greater for than the average proportion of female population (14.700%). For income, average proportion of population who borrowed from a financial institution or used a credit card is found to be significantly higher for rich (19.854%) as compared to average proportion of poor people (12.547%).With respect to age, the average proprtion of population who borrowed from a financial institution or used a credit card is found to be significantly higher for older adults (19.574%) as compared to percentage of young adults (9.927%). The result also reports the significant impact of education on borrowings from a financial institution or use of a credit card. The average proportion of population with secondary education or more (20.358%) report significantly more borrowings from a financial institution or use of a credit card in comparison to percentage of population with primary education or less (11.492%). 15.937% of average proportion of rural population is found making borrowings from a financial institution or using a credit card. The average proportion of people in labour force (20.565%) who borrowed from a financial institution or used a credit card is significantly more than the average proportion of people out of labour force (10.104%) who borrowed from a financial institution or used a credit card. Thus, it can be concluded that being male, rich, older adult, possessing secondary education or being in labour force significantly impact borrowings from a financial institution or using a credit card. The skewness and kurtosis values given the table show that distribution is normal as the skewness and kurtosis estimates are found to be less than 1 in most of the cases.

Descriptive statistics and Independent sample T test
(Borrowings from a Financial Institution and use of credit card (%, age15+)

Socio Economic Details	Socio Economic Details	Skewness (Kurtosis)	Mean (Std. Deviation)	T Stats
Gender	Female (ages15+)	.478	14.700	-6.667**
		(-.835)	(9.726)	
	Male (ages15+)	.887	19.227	
		(.648)	(11.962)	
Income	Income, poorest 40% (%ages15+)	1.001	12.547	-7.432**
		(1.159)	(9.448)	
	Income, richest 60% (%ages15+)	.687	19.854	
		(-.252)	(12.273)	
Age	Older adults (%ages25+)	.778	19.574	7.427**
		(.181)	(12.004)	
	Young adults (%ages15-24)	1.730	9.927	
		(4.321)	(8.483)	
Education	Primary education or less (%ages15+)	.502	11.492	-9.535**
		(-.154)	(6.984)	
	Secondary education or more (%ages15+)	.527	20.358	
		(-.561)	(11.499)	
Rural	Rural (%age15+)	.836	15.937	
		(.247)	(10.662)	
Labour Force	Out of labor force (%age15+)	1.110	10.104	-9.075**
		(1.325)	(7.215)	
	Labor force (%age15+)	.738	20.565	
		(-.323)	(12.990)	

*Note: 1** Significant at 5% level*

Country wise analysis of socio economic factors and formal credit

Country wise analysis of borrowings from a financial institution account or use of credit card on the basis of socio economic factors implies the financial inclusion on the basis of loans taken from a financial institution across countries. Country wise socio economic factors are examined for borrowings from a financial institution or use of credit card using descriptive analysis. Table 2 reveals that maximum average proportion of borrowings from a financial institution or use of credit card is reported for female population (32.784%), for population with secondary education (37.9%) ,for rural population(33.776%) and for in labour force population(42.655%) by Estonia. Malaysis reports maximum average proportion of borrowings from a financial institution or use of credit card for male population (37.772%), for income richest population (38.434%) and older adult population(38.786%) and for out of labour force (23.358%). The maximum average proportion of average borrowings from a financial institution or use of credit card for income poorest (27.856%) and young adults (22.784%) is reported by Latvia. Chile has maximum average proportion of borrowings from a financial institution or use of credit card for population with primary education (22.559%).Guinea reports minimum average proportion of borrowings from a financial institution or use of credit card for male population (3.658%), income richest population(3.809%), older adult population(4.192%), young adult population(1.517%), population with primary education or less (2.255%) ,people living in rural area (2.773%) and in labour force population(3.744%) .However, minimum average proportion of borrowings from a financial institution or use of credit card is reported in Afghanistan for female population (1.441%) and for out of labour force (1.760%), in Rwanda for income poorest population (2.1%) and in Zimbabwe for population with secondary education or more(5.154%). In India, female population, male population, income poorest, income richest, older adults, young adults, people with primary education or less, people with secondary education or more, people living in rural area, out of labour force and labour force report for 6.177%, 12.064%, 7.491%, 10.268%, 10.240%, 6.251%, 7.258%, 11.263%, 8.431%, 6.307% and 11.663 % for average proportion of borrowings from a financial institution or use of credit card.

Table2: Country-wise descriptive statistics of Socio Economic Factors and borrowings from a financial Institution or use of credit card

Country	Female	Male	Income, poorest 40%	Income, richest 60%	Older adults	Young adults	Primary education or less	Secondary education or more	Rural	Out of labor force	In labor force
	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)
Afghanistan	1.441 (1.566)	8.858 (4.99)	3.153 (1.302)	5.979 (2.916)	4.625 (0.655)	6.465 (6.439)	2.906 (0.628)	9.723 (5.946)	4.139 (0.368)	1.76 (0.62)	7.183 (2.184)
Bangladesh	9.959 (2.138)	10.19 (0.347)	11.239 (1.024)	9.212 (0.697)	13.244 (2.262)	3.063 (1.267)	11.961 (0.249)	8.036 (0.966)	9.746 (0.276)	7.621 (0.488)	12.972 (1.499)
Botswana	16.832 (11.477)	23.878 (14.228)	6.87 (3.986)	29.497 (19.458)	25.29 (17.441)	10.058 (4.499)	9.836 (6.149)	25.035 (14.673)	22.833 (17.429)	16.645 (15.553)	22.054 (10.111)
Chile	28.502 (1.778)	34.644 (3.085)	24.404 (0.011)	35.963 (0.715)	35.51 (0.215)	15.399 (4.204)	22.559 (3.738)	33.888 (0.925)	28.809 (1.125)	19.027 (1.723)	40.043 (0.963)
Dominican Republic	23.597 (3.651)	25.296 (7.622)	15.448 (0.035)	30.542 (9.182)	29.518 (7.497)	11.248 (0.965)	17.382 (2.565)	34.339 (7.449)	22.071 (5.773)	12.685 (0.048)	29.432 (6.821)
Estonia	32.784 (3.31)	32.183 (2.333)	27.754 (8.672)	36.26 (3.684)	34.322 (0.412)	20.246 (3.459)	15.901 (3.217)	37.9 (1.327)	33.776 (5.381)	12.875 (3.832)	42.655 (1.605)
Guinea	2.777 (2.44)	3.658 (2.313)	2.308 (1.781)	3.809 (2.79)	4.192 (2.406)	1.517 (2.256)	2.255 (1.816)	6.881 (3.549)	2.773 (1.59)	1.878 (2.081)	3.744 (2.514)
Hungary	15.52 (2.211)	16.694 (2.161)	14.561 (0.279)	16.906 (0.124)	16.395 (1.228)	19.461 (18.833)	9.269 (4.65)	19.144 (1.232)	16.821 (5.953)	9.535 (2.671)	21.436 (1.218)
India	6.177 (0.029)	12.064 (2.104)	7.491 (1.225)	10.268 (0.907)	10.24 (0.895)	6.251 (1.358)	7.258 (0.413)	11.263 (1.761)	8.431 (0.542)	6.307 (0.5)	11.663 (2.502)
Indonesia	12.533 (4.728)	15.801 (3.476)	12.361 (0.954)	15.428 (6.063)	16.381 (4.931)	6.566 (1.684)	9.882 (3.271)	17.857 (5.023)	13.298 (6.19)	8.193 (2.854)	17.527 (4.892)
Kenya	13.757 (0.073)	19.07 (5.925)	9.603 (3.427)	20.558 (2.619)	20.834 (0.585)	7.85 (6.009)	13.84 (5.091)	19.64 (6.432)	15.771 (3.309)	9.023 (0.506)	17.753 (3.838)
Latvia	26.692 (7.997)	35.788 (18.826)	27.856 (15.239)	32.61 (11.117)	32.101 (12.714)	22.784 (16.946)	18.767 (8.512)	34.056 (13.83)	24.938 (6.097)	11.555 (6.087)	39.72 (13.936)
Malaysia	24.824	37.772	21.705	38.434	38.786	14.247	21.143	33.595	29.87	23.358	36.565
	(4.312)	(12.75)	(5.814)	(10.871)	(15.853)	(6.59)	(8.576)	(9.424)	(15.716)	(3.981)	(12.456)
Namibia	10.378	14.589	5.582	17.079	14.894	7.808	5.787	18.302	10.157	9.732	14.041
	(4.655)	(4.017)	(4.443)	(3.998)	(3.737)	(5.614)	(5.793)	(1.168)	(4.29)	(1.821)	(4.901)
Poland	22.524	31.861	23.001	29.701	29.584	13.997	15.902	29.18	24.56	19.902	32.912
	(3.922)	(2.969)	(5.799)	(1.774)	(4.613)	(7.584)	(0.85)	(4.401)	(5.599)	(6.995)	(6.485)
Rawanda	5.665	11.245	2.1	13.059	12.222	1.7	7.781	12.51	7.712	3.055	10.104
	(0.699)	(1.251)	(1.783)	(2.381)	(2.411)	(2.455)	(0.797)	(2.636)	(0.683)	(0.215)	(1.423)
Thailand	16.517	20.231	16.474	19.141	19.22	13.456	15.51	22.173	17.879	9.358	20.785
	(5.062)	(1.488)	(3.679)	(1.322)	(3.275)	(4.775)	(4.471)	(1.408)	(2.485)	(2.79)	(2.039)
Uganda	13.909	18.432	13.493	18.21	20.476	10.174	14.39	19.286	15.722	13.417	17.089
	(0.278)	(2.732)	(4.894)	(0.263)	(3.822)	(1.4)	(3.329)	(0.426)	(1.478)	(5.316)	(0.626)
Zambia	5.358	7.69	3.099	8.566	7.797	4.307	3.859	9.19	6.011	3.591	7.74
	(1.053)	(6.19)	(1.476)	(5.214)	(2.801)	(4.773)	(1.792)	(5.209)	(3.853)	(3.29)	(4.049)
Zimbabwe	4.239	4.58	2.428	5.846	5.828	1.926	3.644	5.154	3.417	2.549	5.879
	(0.63)	(1.283)	(1.365)	(1.178)	(0.424)	(1.356)	(2.03)	(1.197)	(0.524)	(1.275)	(0.812)

Comparative analysis of Indian Banking sector with selected countries for formal credit on the basis of socio economic factors.

Since there average proportion of borrowings from a financial institution or use of credit card differ across countries thus to examine whether the proportion of borrowings from a financial institution or use of credit card by different people in different countries vary significantly, One way ANOVA test is used. Since the number of countries are 20 including India, the Post hoc Tukey test is used to compare the proportion of

population making borrowings from a financial institution or use of credit card in India with respect to other nineteen countries. The following hypothesis is examined:

H0: *"The average proportion of borrowings from a financial institution or use of credit card according to socio economic factors does not differ significantly in selected countries"*

The results reported in Table 3 rejects the null hypothesis that *"The average proportion of borrowings from a financial institution or use of credit card according to socio economic factors does not differ significantly in selected countries"*. The F value is greater than 1 for borrowings from a financial institution or use of credit card in each case of socio economic factors i.e avg proportion of female population (14.836), male population (7.197), poor population(9.557), rich population (9.094),older adults (7.991), young adults (2.504) , people with primary education(6.544), people with secondary education (9.112), people living in rural area(6.579), population out of labour force (5.343), people in labour force (13.990).

The comparison of Indian Banking sector with selected countries for borrowings from a financial institution or use of credit card according to socio economic variables as shown in Table 3 reveals that there is no significant difference in the average proportion of borrowings from a financial institution or use of credit card in India with selected countries with respect to young adult population. However, India has significantly lower average proportion of borrowings from a financial institution or use of credit card by female population and in labour force population than Chile (mean difference -22.324,-28.38 respectively), Dominican Republic (mean difference -17.42, -17.769 respectively), Estonia (mean difference -26.606,-30.992 respectively), Latvia (mean difference -20.514, -28.057 respectively), Malaysia (mean difference -18.647, -24.902 respectively) and Poland (mean difference -16.347, -21.249 respectively). For male population, India has significantly lower average proportion of borrowings from a financial institution or use of credit card than Chile (mean difference -22.58), Latvia (mean difference -23.724) and Malaysia (-25.708).

Similarly, for income poorest population, India reports significantly lower average proportion of borrowings from a financial institution or use of credit card than Chile (mean difference -16.912), Estonia (mean difference -20.263), Latvia (mean difference -20.364) and Poland (mean difference-15.509). India accounts for statistically significant lower average proportion of borrowings and use of credit card as compared to Chile (mean difference-25.694), Dominican Republic (mean difference -20.274), Estonia (mean difference-25.991), Latvia (mean difference-22.341) and Malaysia (mean difference -28.165) for income richest population. As far as older adult population is concerned, India reports significantly lower average proportion of borrowings from a financial institution or use of credit card than Chile (mean difference -25.27), Estonia (mean difference -24.082), Latvia (mean difference -21.861) and Malaysia (mean difference -28.546). The population with primary education or less and Rural population in India accounts for significantly lower average proportion of borrowings from a financial institution or use of credit card than Chile (mean difference -15.301,-20.378 respectively), Estonia (mean difference -24.082,-25.345 respectively) and Malaysia (mean difference -13.885,-21.439 respectively).Chile (mean difference-22.625), Dominican Republic (mean difference-23.076) , Estonia (mean difference-26.637), Latvia (mean difference-22.793) and Malaysia(mean difference-22.332) report significantly higher proportion of borrowings from a financial institution or use of credit card by population with secondary education or more as compared to India. For out of labour force population, India reports significantly lower average proportion of borrowings from a financial institution or use of credit card than Malaysia (mean difference -17.051). India also reports significantly lower average proportion of borrowings from a financial institution or use of credit card by in labour force population as compared to Chile (mean difference -28.38), Dominican Republic (mean difference -17.769), Estonia (mean difference -30.992), Latvia (mean difference -28.057), Malaysia (mean difference -24.902) and Poland (mean difference -21.249).

Table3: Comparison of Indian banking sector with selected countries for borrowings from a FI or use of credit card

Borrowed from a FI or used a credit card		Female (SE 3.400)	Female (SE 3.400)	Male (SE 5.643)	Income Poorest 40% (SE 3.981)	Income Richest 60% (SE 5.277)	Older adults (SE 5.436)	Young adults (SE 5.685)	Primary education or less (SE 3.417)	Sec. Edu. or more (SE 4.940)	Rural (SE 5.206)	Out of labor force (SE 3.804)	Labor force (SE 4.659)
(I) Country	(J) Country	Mean Difference (I-J)(Sig)	Mean Difference (I-J)(Sig)	Mean Difference (I-J)(Sig)	Mean Difference (I-J)(Sig)	Mean Difference (I-J)(Sig)	Mean Difference (I-J)(Sig)	Mean Difference (I-J)(Sig)	Mean Difference (I-J)(Sig)	Mean Difference (I-J)(Sig)	Mean Difference (I-J) (Sig)	Mean Difference (I-J) (Sig)	Mean Difference (I-J)(Sig)
India	Afghanistan	4.736 (0.996)	4.736 (0.996)	3.205 (0.999)	4.338 (0.999)	4.289 (0.999)	5.614 (0.999)	-0.213 (1)	4.351 (0.998)	1.539 (0.999)	4.291 (0.999)	4.547 (0.999)	4.479 (0.999)
	Bangladesh	-3.782 (0.999)	-3.782 (0.999)	1.873 (0.999)	-3.747 (0.999)	1.056 (1)	-3.004 (0.999)	3.188 (0.999)	-4.703 (0.996)	3.226 (0.999)	-1.315 (0.999)	-1.314 (0.999)	-1.309 (0.999)
	Botswana	-10.655 (0.217)	-10.655 (0.217)	-11.814 (0.841)	0.62 (1)	-19.228 (0.071)	-15.05 (0.411)	-3.807 (0.999)	-2.577 (0.999)	-13.772 (0.399)	-14.402 (0.412)	-10.338 (0.443)	-10.391 (0.766)
	Chile	-22.324* (0)	-22.324* (0)	-22.58** (0.028)	-16.912** (0.014)	-25.694* (0.002)	-25.27* (0.004)	-9.147 (0.981)	-15.301* (0.007)	-22.625* (0.005)	-20.378** (0.036)	-12.72 (0.141)	-28.38* (0)
	Dominican Republic	-17.42* (0.001)	-17.42* (0.001)	-13.232 (0.694)	-7.956 (0.884)	-20.274** (0.043)	-19.278 (0.089)	-4.996 (0.999)	-10.123 (0.299)	-23.076* (0.004)	-13.64 (0.508)	-6.378 (0.973)	-17.769** (0.046)
	Estonia	-26.606* (0)	-26.606* (0)	-20.119 (0.085)	-20.263* (0.001)	-25.991* (0.002)	-24.082* (0.008)	-13.994 (0.616)	-8.642 (0.57)	-26.637* (0)	-25.345* (0.002)	-6.568 (0.964)	-30.992* (0)
	Guinea	3.399 (0.999)	3.399 (0.999)	8.405 (0.991)	5.183 (0.998)	6.459 (0.999)	6.047 (0.999)	4.734 (0.999)	5.002 (0.993)	4.381 (0.999)	5.657 (0.999)	4.429 (0.999)	7.918 (0.969)
	Hungary	-9.343 (0.424)	-9.343 (0.424)	-4.63 (0.999)	-7.069 (0.954)	-6.637 (0.998)	-6.155 (0.999)	-13.209 (0.708)	-2.01 (0.999)	-7.881 (0.983)	-8.39 (0.981)	-3.228 (0.999)	-9.772 (0.839)
	Indonesia	-6.356 (0.93)	-6.356 (0.93)	-3.737 (0.999)	-4.869 (0.999)	-5.16 (0.999)	-6.141 (0.999)	-0.315 (1)	-2.624 (0.999)	-6.594 (0.997)	-4.867 (0.999)	-1.886 (0.999)	-5.864 (0.998)
	Kenya	-7.58 (0.766)	-7.58 (0.766)	-7.006 (0.999)	-2.111 (0.999)	-10.289 (0.903)	-10.594 (0.903)	-1.598 (0.999)	-6.582 (0.911)	-8.377 (0.97)	-7.34 (0.995)	-2.716 (0.999)	-6.089 (0.998)
	Latvia	-20.514* (0)	-20.514* (0)	-23.724** (0.016)	-20.364* (0.001)	-22.341** (0.015)	-21.861** (0.027)	-16.533 (0.328)	-11.508 (0.134)	-22.793* (0.005)	-16.506 (0.202)	-5.248 (0.996)	-28.057* (0)
	Malaysia	-18.647* (0)	-18.647* (0)	-25.708* (0.006)	-14.213 (0.084)	-28.165* (0)	-28.546* (0)	-7.995 (0.995)	-13.885** (0.024)	-22.332* (0.006)	-21.439** (0.021)	-17.051* (0.007)	-24.902* (0)
	Namibia	-4.2 (0.999)	-4.2 (0.999)	-2.525 (0.999)	1.908 (0.999)	-6.81 (0.998)	-4.654 (0.999)	-1.557 (0.999)	1.47 (0.999)	-7.039 (0.995)	-1.726 (0.999)	-3.425 (0.999)	-2.378 (0.999)
	Poland	-16.347* (0.002)	-16.347* (0.002)	-19.797 (0.098)	-15.509** (0.038)	-19.433 (0.064)	-19.344 (0.087)	-7.745 (0.997)	-8.643 (0.57)	-17.917 (0.074)	-16.129 (0.233)	-13.594 (0.084)	-21.249* (0.006)
	Rwanda	0.511 (1)	0.511 (1)	0.818 (1)	5.39 (0.997)	-2.79 (0.999)	-1.982 (0.999)	4.551 (0.999)	-0.522 (1)	-1.247 (0.999)	0.718 (1)	3.251 (0.999)	1.558 (0.999)
	Thailand	-10.34 (0.259)	-10.34 (0.259)	-8.166 (0.994)	-8.983 (0.75)	-8.872 (0.972)	-8.979 (0.976)	-7.204 (0.998)	-8.252 (0.648)	-10.91 (0.779)	-9.448 (0.945)	-3.051 (0.999)	-9.122 (0.9)
	Uganda	-7.732 (0.739)	-7.732 (0.739)	-6.368 (0.999)	-6.001 (0.99)	-7.941 (0.99)	-10.235 (0.926)	-3.923 (0.999)	-7.131 (0.844)	-8.023 (0.98)	-7.291 (0.995)	-7.11 (0.93)	-5.426 (0.999)
	Zambia	0.819 (0.999)	0.819 (0.999)	4.373 (0.999)	4.391 (0.999)	1.702 (0.999)	2.442 (0.999)	1.944 (0.999)	3.398 (0.999)	2.072 (0.999)	2.419 (0.999)	2.715 (0.999)	3.922 (0.999)
	Zimbabwe	1.938 (0.999)	1.938 (0.999)	7.483 (0.997)	5.063 (0.998)	4.422 (0.999)	4.411 (0.999)	4.325 (0.999)	3.613 (0.999)	6.108 (0.999)	5.013 (0.999)	3.758 (0.999)	5.784 (0.999)
	F	14.836**	14.836**	7.197**		9.094**	7.991**	2.504**	6.544**	9.112**	6.579**	5.343**	13.990**

*Note : *,** significant at 1% and 5% level respectively*

Conclusion, Implications and future Studies

The study brings out that being male, rich, older adult, possessing secondary education or being in labour force significantly impact borrowings from a financial institution or using a credit card. As far as borrowings from a financial institution or using a credit card is concerned India reports statistically significant lower average proportion than Malaysia(upper middle income

country) for female population, male population, income richest population,older adult population, population with primary education, population with secondary education ,rural population, out of labour force population and in labour force population, Dominican Republic (upper middle income country) for female population, income richest population, population with secondary education and in labour force population , Chile (high income country) for female population, male population, income poorest population, income richest population, older adult population, population with primary education, population with secondary education ,rural population and in labour force population, Estonia(high income country) for female population, income poorest population, income richest population, older adult population, population with secondary education ,rural population and in labour force population , Latvia(high income country) for female population, male population, income poorest population, income richest population, older adult population, population with secondary education and in labour force population and Poland(high income country) for female population, income poorest population and in labour force population. However, with other selected countries India reports insignificant difference in terms of formal credit on the basis of socio economic factors.

Implications

The study reveals that special schemes and plans should be chalked by Indian banking sector for female population, poor population, population with primary education or less , rural population and out of labour force population so that they resort to formal banking system to meet their financial needs. The present study may help the policy makers and banking sector to customize the schemes as per the special requirements of female population, poor population, population with primary education or less , rural population and out of labour force population. The study also highlights that the countries in comparison to which India is reporting lower average proportion for formal credit on the basis of socio economic factors are either upper middle income countries or high income countries. Understanding strategies and policies of banking sector of such countries may assist Indian banking sector to redraft its policies to cover all socio economic segments and to outperform than other countries to meet financial requirements of different socio economic groups.

Future Research

The present study is based on secondary data. For further research, primary data may be collected from different regions of India covering all socio economic groups to understand their financial needs, repayment capacities and problems faced to take credit from banks. Such future research may be helpful to banking sector to better serve different socio economic groups of the society and improve performance in terms of financial inclusion.

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