

Prospects of Modern Banking Practices in Rural Economy of India

-A Study Making a Way towards Reality of the Dream of Cashless Economy of India, With Special Reference to The Semi Hilly Districts of Lower Himachal Pradesh

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Abstract: India, on an edge of major change towards an unprecedented economic growth along with robust advancements in the nation's HDI, having a round 65% of its population aged below 35 years and will add almost 10-12 million more to it every year incoming two decades. Urban India has 137 million Internet users, whereas rural has 68 million, growing by 58% each year. Increasing smart phones and 3G subscriptions are further strengthening it. The statistics motivates us towards the infusion of the idea of effective utilisation of modern banking practices especially associated with mobile and internet in rural India, marching towards the fulfilment of dream of a cashless India by Modi Government in near future. But there are many structural problems which needs to be considered and resurrected with very hard efforts. Only our youth is well versed or is learning the modern banking effectively. Apart the recent outcomes of the scenario in the recent demonetization, where only educated or at least mobile and smart technologies savvy retailers were able to offer the e-payment mode, such as Paytm and a large old aged and mid aged segment was unable to do so and reworked for other make to use alternatives, was not much answerable as a positive feedback. Further the facilities in the rural regions, especially remote ones is well away from even basic facilities and other such related problems. Hence a study has been conducted in the lower region of Himachal Pradesh, which is a rural area quite in cut from its even nearby metros, with a lack or a minimal facility of resources in general and least connectivity in particular. The area has hardly found to be touched with the help of a grass root study. 102 respondents (51 Young Aged and they referred 51 Middle Aged) have been taken as sample from the region of Lower Himachal Pradesh and Adjoining Districts of other adjacent States using Snowball Sampling Technique. As per the study interpretations, middle aged is more purported to use the modern banking measures

for its personal as well as business usage, being them more involved in Handling of funds. The main problems faced by rural and remote region in using cash less transactions include Location and such other problems. Hence, Banking entities operating or planning to expand their business in the region, to offer its modern banking solutions need to enhance its branch network or may utilize the services of channel partners to better serve its remotely located customers. Further, they need to condition their employee base to the needs of locale. Network connectivity issues may be sorted by a mixed initiative by government and corporate, as it will enhance business as well.

Keywords: Modern Banking and Connectivity Issues, The Cashless Economy and Reality.

1. INTRODUCTION

India having 137 million Internet users in Urban and 68 million in rural, is growing by 58% each year. This motivates us towards the infusion of modern banking practices especially associated with mobile and internet in rural India, marching towards the fulfillment of dream of a cashless India, subjecting to many structural problems it has. It is a general belief that our youth is well versed with the modern banking effectively. The recent outcomes of the scenario in the recent demonetization have many things to say. On 8 November 2016, the Government of India announced the demonetisation of all Rs. 500 (US\$7.40) and Rs.1,000 (US\$15) banknotes of the Mahatma Gandhi Series. [12] The government claimed that the action would curtail the shadow economy and crack

down on the use of illicit and counterfeit cash to fund illegal activity and terrorism.[13][14]. The sudden nature of the announcement and the prolonged cash shortages in the weeks that followed created a significant disruption throughout the economy. [15][16][17][18]. In the announcement, Modi declared that use of all Rs.500 and Rs.1000 banknotes would be invalid past midnight, and announced the issuance of new Rs.500 and Rs.2000 banknotes in exchange. SENSEX and NIFTY fell over 6 percent next day.[19] India faced severe cash shortages with severe detrimental effects across the economy.[20][21][22] People seeking to exchange their bank notes had to stand in lengthy queues, and several deaths were linked to the inconveniences caused due to the rush to exchange cash.[23][24] It was heavily criticised by members of the opposition parties, leading to debates in both houses of parliament.[25][26][27] The Indian Supreme Court while hearing one among a slew of cases filed against the sudden demonetization decision in various courts,[28] observed that it "appears to be carpet bombing and not surgical strike".[29] Amartya Sen, severely criticised the demonetisation move calling it a "despoticaction".[30][31] Former Sr. VP and Chief Economist - World Bank, Kaushik Basu, called it a 'major mistake'.[32][33][34] Pronab Sen, former Chief Statistician and Planning Commission India member, called it a "hollow move".[35] Prabhat Patnaik, a former professor JNU called the move 'witless' and 'anti people'.[36] Noted economist and journalist, T. N. Ninan wrote in the Business Standard that demonetisation 'looks like a bad idea, badly executed on the basis of some half baked notions'.[37] Deepak Parekh (Chairman of HDFC) had initially appreciated the decision, but later said that the move had derailed the economy.[38][39] Industrialist Rajiv Bajaj criticised the demonetisation, saying that the concept of demonetisation was wrong in itself.[40] Chief Ministers of several Indian states[41][42][43] have criticised and led major protests against causing hardships to common.[44] A PIL filed in Madras High Court by GS Indian National League, got dismissed by HC stating that it could not interfere in monetary policies of the government.[45] Similar PILs were also filed in the Supreme Court.[46] Several government ministers had declared before the demonetisation that they were holding large amounts of cash.[47][48] Steve Forbes described the move as 'Sickening And Immoral'.[49] He stated that "What

India has done is commit a massive theft of people's property without even the pretense of due process a shocking move for a democratically elected government." [49] Nobel laureate Paul Krugman said that there may be significant costs to it.[50] The demonetisation also came in for sharp criticism from media outside India,[51][52] with the New York Times saying that the demonetisation was "atrociously planned" and that it did not appear to have combatted blackmoney,[53][54] while an article in The Guardian stated that "Modi has brought havoc to India".[51] The Harvard Business Review called it "a case study in poor policy and even poorer execution"[55] The frequent change in the narrative on objectives of the demonetisation to its visible impact on the poorest of the poor made other critique scalling government's narrative as spins in view of the "pointless suffering on India's poorest." [56] Global analysts cut their forecasts of India's GDP growth rate due to demonetisation.[57][58] India's GDP in 2016 estimated to be US\$2.25 trillion, hence, each 1 per cent reduction in growth rate represents a shortfall of US\$22.5 billion (Rs. 1.54 lakh crores) for the Indian economy.[59] According to Societe Generale, India's quarterly GDP growth rates may drop below 7% for an entire year at a stretch for the first time since June 2011.[60] There was a reduction in industrial output as industries were hit by the cash crisis.[61] There was a slowdown in both manufacturing and services industries.[62] The PMI report showed that the reduction in inflation in November was due to shortage in money supply.[61] The growth in eight core sectors such as cement, steel and refinery products, was only to 4.9 percent in November as compared with 6.6 percent in October.[62][63] The recent outcomes of the scenario in the recent demonetization was not much answerable as a positive feedback. Further the rural regions, especially remote ones are well away from even basic facilities and other such related problems much drastically faced it. Hence a study is conducted in the lower region of Himachal Pradesh, which is a rural area quite in cut from its even nearby metros, with a minimal facility of resources in general and least connectivity in particular.

2. LITERATURE SURVEY

As per the literature cited, no exactly relevant Literature is available, but related studies that are relevant to the subject, are mentioned as follows:

Author (Year)	Title	Instrument	Technique	Conclusion	Recommendations	Further Scope
Sukanya (2016)	Trends, Implications and Prospects of Retail Banking in India	Secondary data Analysis, Time Series: 2004-2013	Comparative and Ratio Analysis,	Retail banking has the macro benefit of raising the level of economic activity in the country resulting in higher rates of economic growth of the country.	Sufficient precautions are taken to ensure that the retail loans lent by the banks are serviced and repaid according to schedule so not resulting in increasing bad debts and nonperforming assets.	Effective precautionary measures on retail loan processing and handling can be reached out.
Chatterjee & Banerji (2016)	The Impact of Demonetization in India	Secondary Data Analysis	Comparative Study: Pre and Post Availability	Sectors / Industries serving in rural and semi-urban regions, as well as tier 2 and tier 3 cities and	It is expected to enhance the liquidity position of banks, which can be leveraged for lending purposes.	Necessary tackling measures need to be taken by respective sectors on their own.

Author (Year)	Title	Instrument	Technique	Conclusion	Recommendations	Further Scope
			of various techniques.	towns whose markets primarily driven by cash transactions, are most adversely affected		
Mittal, Jadaun & Dash (2013)	Computerization in banks - some issues	Primary (79 litigants questionnaire) and Secondary Data	Comparative Study: Pre and Post Availability of various techniques.	Technology is the one which is subjected to and has balanced fundamental changes in the banks. We have initiated ourselves in the next course and touched new heights of brilliance in the working and efficiency of banks.	Firewalls, data interruption, digital certification are few security measures which must be rooted in the software used by banks. Regular quest for improvement to perform efficiently for gaining profit are some area of urgent attention.	Technical Studies may be conducted to enhance the betterment of the e-safety measures.
Chauhan & Choudhary (2015)	Internet Banking: Challenges and Opportunities in Indian Context	Secondary data Analysis, Time Series: 2010-2014	Comparative Study: Two Period Availability of various techniques.	Security risk, privacy risk, trust factor and less awareness among consumers about e-banking are acting as hurdle in the adoption of e-banking facilities.	Government of India along with various government agencies may make an effort to make e-banking more safe, secure and reliable.	Studies may be focused on factors which influence the consumer intention to adopt internet banking services.
Pahwa (2016)	Cash vs Digital Money	Secondary data, Timeline till 2019	Secondary Data Analysis	There is no parity between Cash and Digital Money.	Giving an indirect tax rebate for using cashless methods of payment may be helpful.	The kind of rebate to be given can be studied further.
Gorlamandala (2016)	Demonetisation is the tool but cashless economy is the goal of India	Secondary data, Timeline till 2019	Time Series / Comparative Analysis	Neither businesses, citizens of India are ready to move into cash less state nor the implementers and other fin tech operators are adequately resourced to deal with.	There is a expectation from the broader markets in India that the Indian government may come up with more relevant measures to reduce black money and also encourage digital transactions in the country.	Other effective measures to tackle black money can be suggested.
Basavarajappa (2012)	E-banking in India and its present scenario and future prospects	Secondary data, Timeline till 2019	Secondary data Analysis	E-banking has posed several challenges to the regulators and supervisors	With networking and inter connection, new problems are taking place related to security, privacy and confidentiality to e-banking transactions.	Technical research with regard to tackle such new technical problems can be taken for.
Biswal (2015)	Emerging Trends in the Indian Banking Sector- Challenges & Opportunities	Secondary Data, Timeline 2007-2012	study of 5 emerging trends of financial services in India, Time Series Analysis	The biggest opportunity for the Indian banking sector today is the Indian costumers. Demographic shifts in terms of income level and cultural shifts in terms of life style aspirations are changing the profile of the Indian customer.	Innovative Rural market strategy in terms of Innovative banking services is required in order to focus on the untapped population in the rural areas. Provision of better Telecommunications network facilities are of prime importance.	Wide coverage of Financial Literacy taking the mentality of the rural Indians into considerations should be customarily formulated.
HDFC Bank Investment Advisory Group (2016)	Demonetization and its impact - Event Update	Secondary data, Timeline till 2019	Secondary data analysis	The move would be positive for sectors like Banking and Infrastructure. It could be negative for sectors like Consumer Durables, Luxury items, Gems and Jewellery, Real Estate and allied sectors.	The government may also get enough headroom to reduce the income tax rates, which can lead to higher disposable income with people and can improve consumption demand in the medium to long term.	Other alternatives to increase the disposable income can be looked for.
Deloitte (2016)	Demystifyin	Secondary	Secondary	Real estate, retail, etc.	The bigger challenge would be	Other effective

Author (Year)	Title	Instrument	Technique	Conclusion	Recommendations	Further Scope
	g demonetization	data, Timeline till 2019	data analysis	getting negatively impacted. On the contrary, Banking and Financial Services, eCommerce, fintech, etc. are expected to have a positive impact.	to address the issue of black money in the long run.	measures to tackle black money can be suggested.
Jayachandran (2016)	Making India a cashless economy	Secondary data, Timeline till 2019	Secondary data analysis	A meaningful transition will depend on a number of things such as awareness, technological developments and cashless economy will depend on a number of factors, such as availability and quality of telecom network, improved security and ease of transaction and incentivize cashless transactions and discourage cash payments.	A shift away from cash will make it more difficult for tax evaders to hide their income, a substantial benefit in a country that is fiscally constrained.	Other stable and effective measure to tackle black money can be suggested.
Mattewos (2016)	Challenges and Prospect of E-Banking in Ethiopia	exploratory research design - primary and secondary qualitative data - E-banking Department of each bank.	The collected data was analyzed by using descriptive analysis such as tables and percentages.	From the View point of the bank Cost reduction, coverage of wide geographical area, customer satisfactions are some of the benefits of using E banking.	Commitment of the government to facilitate the expansion of ICT infrastructure and willingness among banks to cooperate in building infrastructure are the major opportunities for the adoption of the system in the banking industry.	Scope of banking entities to participate in such development can be worked out
Chakrabarty (2009)	Banking and finance in India – development, issues and prospects	Secondary data, Timeline till 2019	Secondary data analysis	While the ratio of bank assets to GDP has increased significantly to a shade over 93 per cent in 2008-09 – a result of high credit growth in recent years – it is still lower than other emerging countries.	Retail banking in India is maturing with time; several products, which further could be customized are in the retails segments of housing loan, personal loan, education loan, vehicle loan, etc.	Exact categories of such customised solutions can be formulated.
Padmanabhan (2012)	Techno banking prospects and challenges	Secondary data, Timeline till date	Secondary data analysis	Present IT systems of banks are not able to manage unstructured data. It is but natural for banks to outsource their IT related activities including application development when the sector as a whole, is facing a shortage of skilled professionals.	Banks need to build systems to capture and analyze unstructured and semi-structured data. Use of local languages could facilitate easy understanding. Adoption of electronic banking would require moving the customers from being “assisted” initially to becoming “self-reliant”.	Technical Studies may be conducted to enhance the betterment of the e-services delivery.
Deodhar (2017)	Black money and demonetization	Secondary data, Timeline till date	Secondary data analysis	There have been global initiatives to tackle “underground economy” or “shadow economy”. Primarily, the principles remain the same.	Risk based monitoring mechanisms, coordination amongst revenue departments and education among other things is recommended.	A consistent estimation of the black economy need to be studied.
Sharma	Role of	Secondary	Secondary	Implementation is in	To facilitate successful	Specific efforts to

Author (Year)	Title	Instrument	Technique	Conclusion	Recommendations	Further Scope
&Sharma (2012)	Information Technology in Indian Banking Sector	data, Timeline till 2019	data analysis	process upon Centralization, Single Window System, Revised Account opening, Call centre for customers, CRM Application and Data Warehousing.	implementation, intensive efforts are to be undertaken on Completion of correct MIS details in all accounts and SRM's. Present slowdown in rollover must be put to full use to have concrete action.	MIS improvement can be formulated.

Research Gap: As per the above literature review, the area has hardly found to be touched with the help of a grass root study. Although many studies already held at national as well as international levels based on secondary input data, but a locale or regionally representing study based upon a primary survey on the subject particular, has been hardly found in context of problems of modern banking in rural India.

3. OBJECTIVES OF THE STUDY

1. To examine that whether the versatility of new systems & technologies has a positive impact on usage of modern banking facilities;
2. To prove that the youth is more probable to use modern banking solutions because of their being well versed with new systems and technology;
3. To explore the main problems faced by rural and remote regions going cash less preventing them to contribute towards the national goal of cashless India;
4. To prove that lack of facilities and other problems have a negative impact on use of cash less transactions, especially in rural and remote regions.

Need and Feasibility Study: As described in the research gap, the area has hardly found to be touched with the help of a grass root study and a locale or regionally representing study based upon a primary survey has been hardly found in context of problems of modern banking in rural India. The research is expected to part up a small component of this research grey area. The Study is well feasible to pursue, based on the premise that a snowball sampling based survey is well easy to conduct, and a primary survey has not been held here.

4. HYPOTHESIS TESTED

Hypothesis Statement 1: Youth is More Probable to Use Modern Banking, because of being well versed with new Systems & Technologies. i.e.,

H₁₀: MEAN_{usage.yn} > MEAN_{usage.ma}
 H_{1a}: MEAN_{usage.yn} = / < MEAN_{usage.ma}

Hypothesis Statement 2: Rural / Remote Localities face more problems in making cash less transactions, due to lesser / lack of facilities / other technical and structural problems. i.e.,

H₂₀: MEAN_{prob.rur/rem} > MEAN_{prob.urb/semiurb}
 H_{2a}: MEAN_{prob.rur/rem} = / < MEAN_{prob.urb/semiurb}

Research Methodology

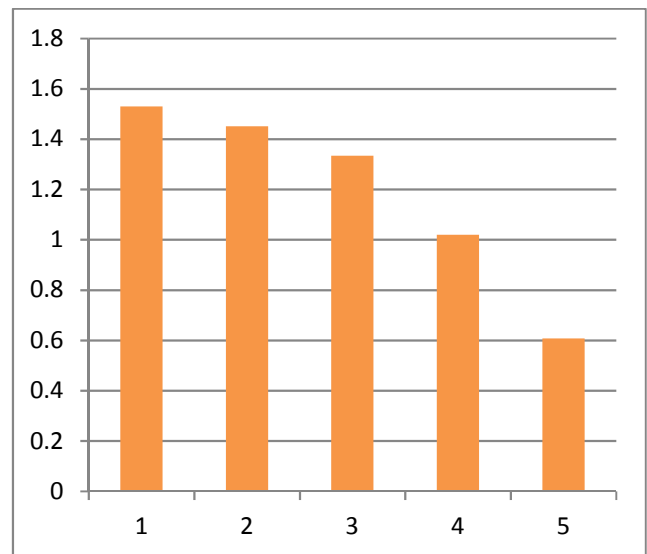
Sampling Technique and Sample Size: Snowball Sampling was used for the purpose, viz. 51 young sampled as convenience in local educational institute(s), then they referred 51 Middle-Aged Samples from their references in ratio 1:1.

Study Usefulness and Limitations: The Study will be well useful for the Banking entities operating or planning to expand their business in the region, to offer such services. Being this Survey is done in Semi-Hilly Region of Himachal Pradesh & Adjoining States; the sample is not a direct representative of national or international population. Further, being a small sample of 102 Respondents only, collected based on convenience and snowball sampling, the results inference may not be an exact reference to the population of the region.

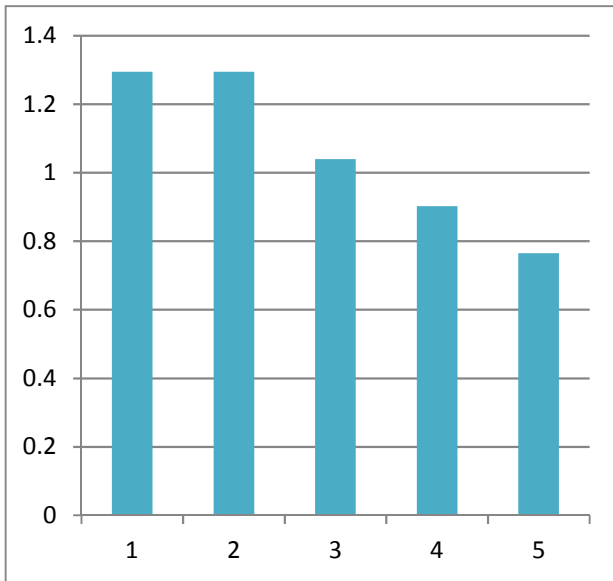
5. DATA INTERPRETATION AND ANALYSIS

1) Gadgets Owned, Used, Versatility, Internet and Measures used in Demonetization

Young



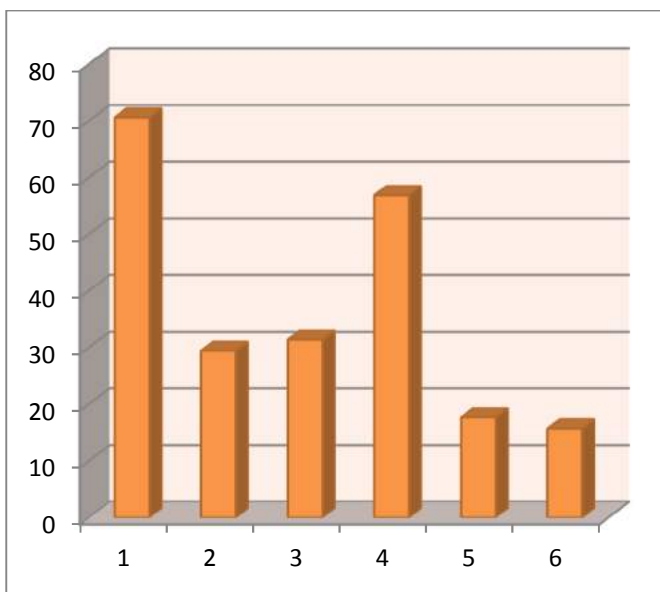
Middle Aged



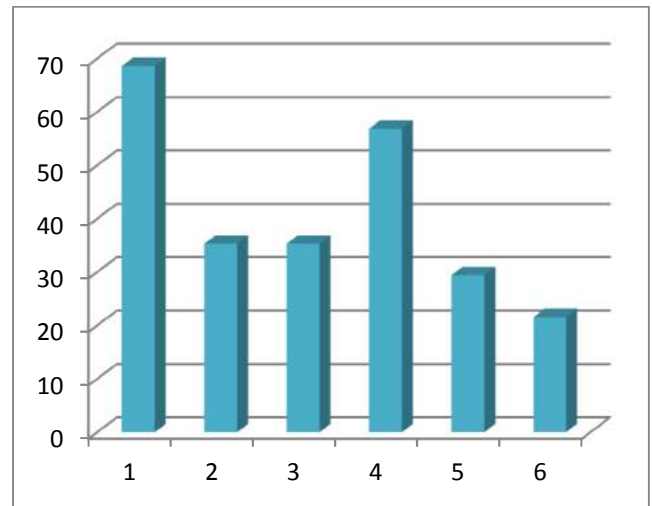
Description: 1 = Average Electronic Gadgets Owned; 2 = Average Gadgets Usage; 3 = Average Gadgets Versatility; 4 = Average Gadgets having Internet Facility; 5 = Average Measures Used in Demonetization.

Interpretation: For Young, the frequency of gadget owned with that of used, its versatility, internet and finally with measures used in demonetization has been observed well lesser and steeply falling, i.e., actual usage of modern banking in need is much more and highly associated with availability and versatility for middle aged.

2) Modern Banking Awareness and Its Usage Young

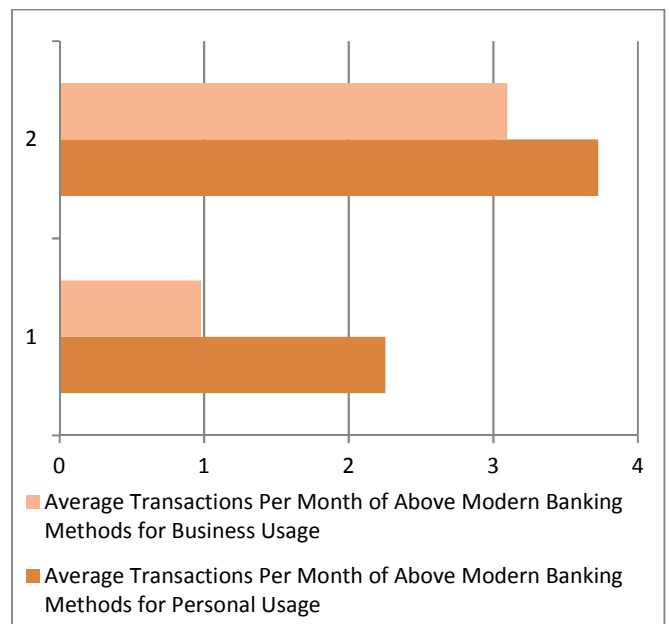


Middle Aged



Description: 1 = % Aware of Internet Banking; 2 = % Using Internet Banking; 3 = % Using Mobile Application (App) for Internet Banking (Including those who are not using it for Transacting); 4 = % Using ATM Banking Facility; 5 = % Using Teller Less Banking; 6 = % Using Green Panel based Banking.

Interpretation: As observed, Association between Percentage Aware of Internet Banking and percentage using Internet Banking, Mobile Application for Internet Banking, Teller Less Banking, and Green Panel based Banking is more again in case of middle aged. this interpret a high degree of association among awareness and usage of uncommon modes of modern banking in case of middle aged.

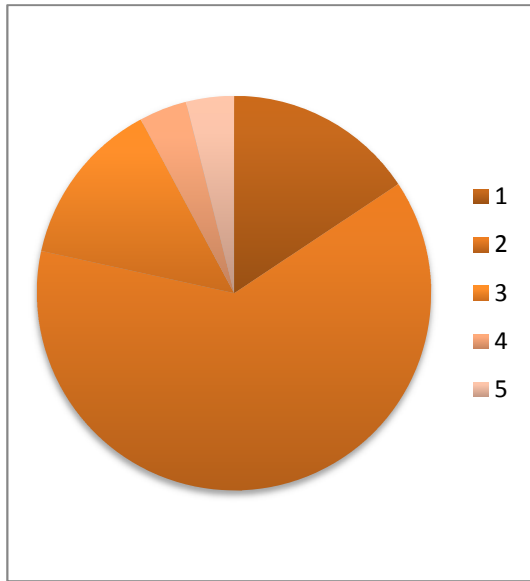


Description: 1 = Young; 2 = Middle Aged.

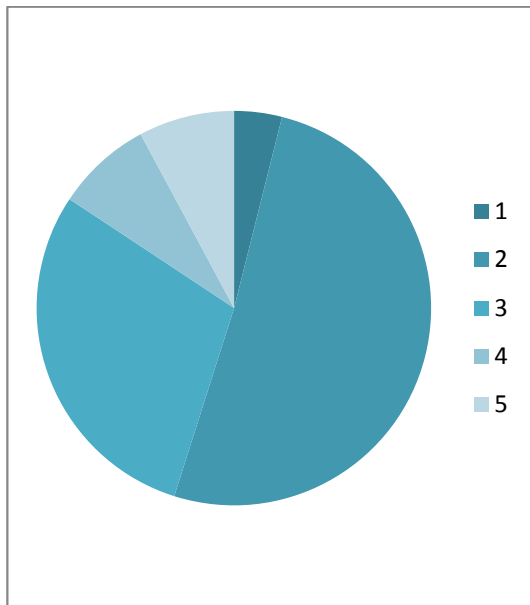
Interpretation: Interpreting Transactional Usage of modern banking, it high in case of both business and personal usage by middle aged and is more than twice in case of personal usage of modern banking measures for middle age, bearing their excessively involvement in managing the financial affairs of the family.

3) Ease in Cash less Transactions

Young



Middle Aged

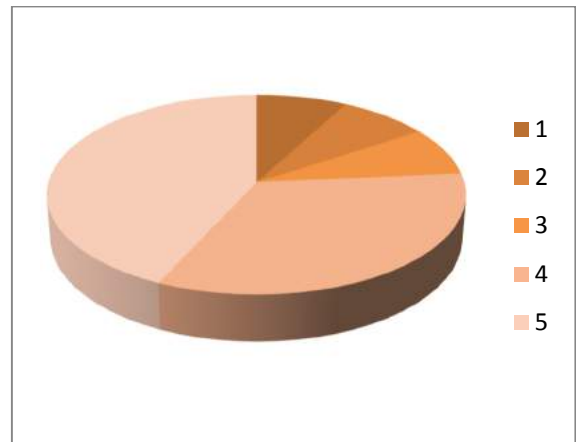


Description: 1 = Percentage who found cash less transactions Extremely Easy; 2 = Percentage who found cash less transactions Simple & Easy; 3 = Percentage who found cash less transactions Somewhat Complex; 4 = Percentage who found cash less transactions Extremely Complex; 5 = Percentage - NIL / NA.

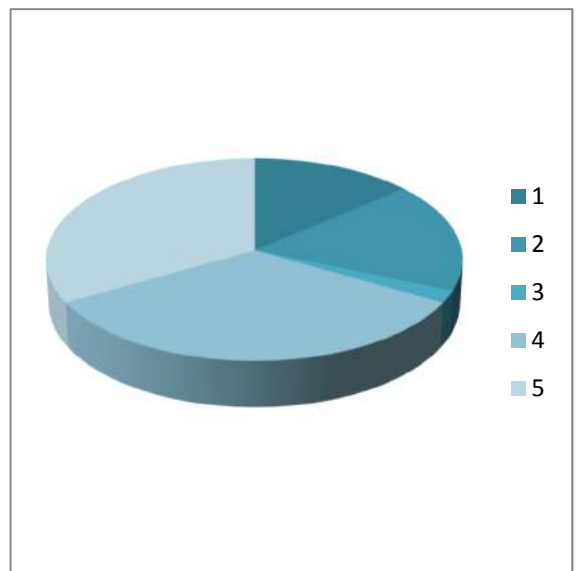
Interpretation: As it comes towards attitude averseness with the new technologies, youth is more adaptable to hence here the results interpret that irrespective of number of transactions carried, youth find cash less transaction much easier than the middle aged perceives and later, they are expected to use even more CLT.

4) Reason Behind Complexity

Young



Middle Aged

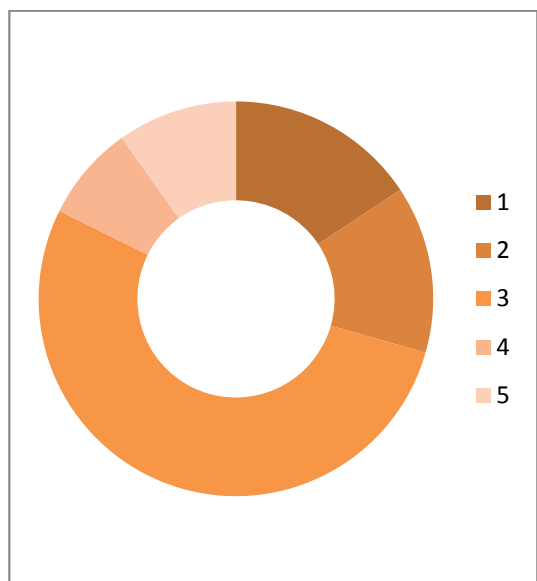


Description: 1 = Percentage found Banking Personnel's Non-response on Education and Redressal as the main reason; 2 = Percentage found Network Interface & Device Compatibility as the main reason; 3 = Percentage found Technical Illiteracy & Incompetency as the main reason; 4 = Percentage found Location & other problems as the main reason; 5 = Percentage - NIL / NA.

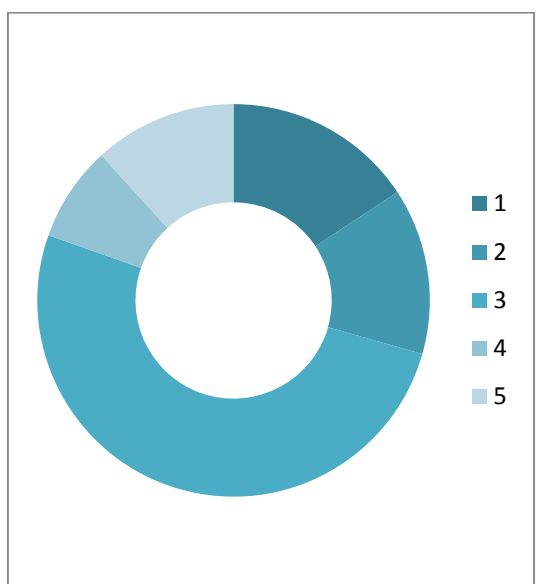
Interpretation:

5) Demonetization Impact

Young



Middle Aged



Description: 1 = Percentage Found Demonetization Extremely Hard; 2 = Percentage Found Demonetization Tough & Hard; 3 = Percentage Found Demonetization Somewhat Problematic, But Survivable; 4 = Percentage Found Demonetization Passive & Smooth; 5 = Percentage - NIL / NA.

6) Applied Data Analysis (Using relevant tests)

Middle Age	Young	Test Criterion
0.227593	0.242681	Correlation in use of electronic gadgets with internet facility
0.67635	0.66509	Correlation in Internet Facility with Internet Banking Awareness
0.410924	0.227778	Correlation in internet banking / tran. awareness with its use
0.229042	0.182574	Correlation in internet facility with internet banking / tran. Use
0.645905	0.513264	Covariance of internet banking / tran. Use with personal usage
0.357555	0.3391	Covariance of internet banking / tran. Use with business usage

6. CONCLUSION AND RECOMMENDATION

It has been observed from the study outcomes that irrespective of youth being more techno-savvy and gadget friendly, Middle aged segment covered in the region has shown its more averseness and usage for modern banking practices, being their more involved in Personal and Business Handling of funds. Majority of the sample covered Found Demonetization Somewhat Problematic, But Survivable. The results of scientific tests interpret that Hypothesis 1 is Rejected being Mean Usage of Young Lesser than that of Middle Aged, with Middle Aged having average transactions per month using the Modern Banking Methods, for personal usage equal to 3.72549 well higher to youth having 2.25490 transactions on average and equal to 3.09804 average transactions for business usage, excessively higher than youth having 0.98039 transactions on average, bearing the above reason. Hypothesis 2 is Accepted being Problems faced in Covered region considerably High at a Mean of 0.372549 compared to other Metro Regions. The data analysis of the tests applied shows us a more comprehensive picture, i.e., Correlation between the use of electronic gadgets and internet facility is higher in case of Young and Correlation between having Internet Facility with Internet Banking Awareness is more in case of Middle age, whereas Correlation between the internet banking or transaction awareness with the use of internet banking or transaction is around double in case of Middle age group and Correlation between having internet facility with internet banking use is again more in case of Middle age. Further, the Covariance of internet banking or transaction use with its

personal as well business usage is more in case of Middle age group with the personal usage being roughly near to double in figures that of business one. It interprets that irrespective of more electronic gadget availability and having the internet facility with that of youth, middle aged is more purported to use the modern banking measure for its personal as well as business usage with them being more averted towards using it for their personal needs, being them more involved in Handling of funds, on being considered more responsible for them. As was proposed in objectives, Versatility with new Systems & Technologies otherwise has a positive impact on Usage of modern Banking Facilities. The main problems faced by rural and remote region in using cash less transactions include Location & other problems, followed by problems such as Banking Personnel's Non-response, Network Interface and Device Compatibility, and Technical Illiteracy and Incompetency. Lesser availability or lack of facilities and other technical and structural problems have truly a negative impact on use of cash less transactions. Hence, the banking entities operating or planning to expand their business in the region, to offer its modern banking solutions need to take measures towards the technical literacy of its prospective consumer segments in consonance with the local bodies and government. Further, they may enhance their branch network or may utilize the services of their channel partners to better serve its remotely located customers. Researches ahead could be focused on formulating effective methods to enhance the technical literacy of the prospective consumer segments. New channels to explore the untapped segments for banking usage can be further augmented.

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REFERENCES:

Periodicals

- [1] Biswal, K. C. (2015), Emerging Trends in the Indian Banking Sector- Challenges & Opportunities. International Journal of Advances in Arts, Sciences and Engineering.. Volume 3, Issue 6, Jan, pp. 8-17.
 - [2] Chauhan, V. & Choudhary, V. (2015) Internet Banking: Challenges and Opportunities in Indian Context. Apeejay Journal of Management Sciences and Technology. Volume 2, Issue 3, June, pp. 29-40.
 - [3] Mittal, P., Jadaun, S. S. & Dash, M. K. (2013), Computerization In Banks -Some Issues. IOSR Journal of Business and Management, www.iosrjournals.org. Volume 8, Issue 4, Mar - Apr, pp. 1-11.
 - [4] Sharma, M.C. & Sharma, A. (2012), Role of Information Technology in Indian Banking Sector. SHIV SHAKTI International Journal in Multidisciplinary and Academic Research, Volume 2, Issue 1, January-February, pp. 1-12.
 - [5] Sukanya, N. (2016), Trends, Implications and Prospects of Retail Banking in India. Acme Intellects International Journal of Research in Management, Social Sciences & Technology Volume 14, Issue 14, Apr, pp. 1-15.
- Conference Proceedings**
- [6] Basavarajappa, M. T. (2012), E-Banking In India And Its Present Scenario And Future Prospects. UGC Sponsored National Conference on Information Technology and Its Implication on Banking Sector. January 1, pp. 1-9: Mangalore.
 - [7] Chakrabarty, K. C. (2009), Banking and finance in India – developments, issues and prospects. 62nd International Banking Summer School. August 31, pp. 1-12: New Delhi.
 - [8] Padmanabhan, G. (2012), Techno – banking – prospects and challenges. 6th ET Banking *Technology Conclave '12*, Mumbai. October 9, pp. 1-7.
- Online Articles**
- [9] Deodhar, R. (2017), Black Money and Demonetization.30 January 2017. From: <https://ssrn.com/abstract=2869172>.
 - [10] Jayachandran, M. (2016), Making India a cashless economy.29 November 2016. From:<http://www.livemint.com/Opinion/XGbavEnoeP7dZITeh21MRM/MakingIndiaacashlesseconomy.html?facet=print>.
 - [11] Pahwa, N. (2016), Cash vs Digital Money: why going cashless is going to be tough in India.29 November 2016. From: <http://www.medianama.com/2016/11/223-cashless-india/>.
 - [12] "Withdrawal of Legal Tender Status for ₹ 500 and ₹ 1000 Notes: RBI Notice". Reserve Bank of India. 8 November 2016. Retrieved 8 November 2016. From: https://rbi.org.in/Scripts/BS_PressReleaseDisplay.aspx?prid=38520
 - [13] "Here is what PM Modi said about the new Rs 500, Rs 2000 notes and black money". India Today. 8 November 2016. Retrieved 9 November 2016. From: <http://indiatoday.intoday.in/story/live-pm-narendra-modi-addresses-nation/1/805755.html>
 - [14] "Notes out of circulation".The Times of India. 8 November 2016. From: <http://timesofindia.indiatimes.com/india/Rs-500-and-Rs-1000-notes-pulled-out-of-circulation-immediately-PM-Narendra-Modi/articleshow/55315473.cms>
 - [15] Saikia, BijoySankar (18 Nov 2016). "Demonetisation may drag India behind China in GDP growth, rob fastest growing economy tag". The Economic Times.Retrieved 5 January 2017. From: <http://economictimes.indiatimes.com/markets/stocks/news/demonetisation-to-drag-india-behind-china-in-gdp-growth-rob-fastest-growing-economy-tag/articleshow/55492970.cms>
 - [16] "The dire consequences of India's demonetisation initiative".The Economist. 3 Dec 2016. Retrieved 20170105. From: <http://www.economist.com/news/finance-and-economics/21711035-withdrawing-86-value-cash-circulation-india-was-bad-idea-badly>
 - [17] Bhatt, Abhinav (8 November 2016). "Watch PM Modi's Entire Speech on Discontinuing 500, 1000 Rupee Notes". NDTV India.Retrieved 8 November 2016. From: <http://www.ndtv.com/india-news/pm-modi-speaks-to-nation-tonight-at-8-pm-1622948>

- [18] "Demonetisation of Rs. 500 and Rs. 1000 notes: RBI explains". The Hindu. 8 November 2016. Retrieved 10 November 2016. From: <http://www.thehindu.com/news/national/live-narendra-modis-address-to-nation/article9320548.ece>
- [19] "Sensex crashes 1,689 points on black money crackdown, U.S. election". The Hindu. Retrieved 9 November 2016. From: <http://www.thehindu.com/business/markets/stock-market-news-november-9-2016/article9322930.ece>
- [20] "India demonetisation: Chaos as ATMs run dry". Al Jazeera. Retrieved 9 November 2016. From: <http://www.aljazeera.com/news/2016/11/india-demonetisation-chaos-atms-run-dry-161109061403011.html>
- [21] "Demonetisation: Chaos grows, queues get longer at banks, ATMs on weekend". 12 November 2016. From: <http://www.indianexpress.com/article/india/india-news-india/demonetisation-chaos-grows-queues-get-longer-at-banks-atms-on-weekend-4371373/>
- [22] "100 days of demonetisation: Stories of hardship". From: <http://www.aljazeera.com/indepth/features/2017/02/100-days-demonetisation-stories-hardship-170215154335682.html>
- [23] "India: Demonetisation takes its toll on the poor". Al Jazeera. 16 November 2016. Retrieved 17 November 2016. From: <http://www.aljazeera.com/news/2016/11/india-demonetisation-takes-toll-poor-161116172745225.html>
- [24] "Demonetisation Death Toll Rises To 25 And It's Only Been 6 Days". Huffington post. Retrieved 15 November 2016. From: <http://www.huffingtonpost.in/2016/11/15/demonetisation-death-toll-rises-to-25-and-its-only-been-6-days/>
- [25] "Demonetisation: Opposition calls for countrywide protest on November 28". The Indian Express. Retrieved 23 November 2016. From: <http://www.indianexpress.com/article/india/india-news-india/demonetisation-opposition-parties-countrywide-protest-bandh-call-november-28-4391208/>
- [26] "Demonetisation: Opposition parties join hands, to hold 'protest day' on November 28". The Indian Express. Retrieved 24 November 2016. From: <http://www.indianexpress.com/article/india/politics/demonetisation-opposition-parties-join-hands-to-hold-protest-day-on-november-28-4391937/>
- [27] " 'Demonetisation protest sure to succeed with people's support' ". The Economic Times. Retrieved 24 November 2016. From: <http://economictimes.indiatimes.com/news/economy/policy/demonetisation-protest-sure-to-succeed-with-peoples-support/articleshow/55607966.cms>
- [28] "Petitions against demonetization; Centre files caveat in SC Latest News & Updates at Daily News & Analysis". 10 November 2016. From: <http://www.dnaindia.com/money/report-petitions-against-demonetization-centre-files-caveat-in-sc-2272138>
- [29] "Currency ban no surgical strike, it's carpet bombing: SC to Modi". From: <http://newsable.asianetnews.tv/money/sc-currency-ban-affidavit>
- [30] PTI. "Amartya Sen terms demonetisation a despotic action". From: <http://www.thehindu.com/news/national/Amartya-Sen-terms-demonetisation-a-despotic-action/article16730675.ece>
- [31] Desk, India.com News (26 November 2016). "Amartya Sen criticises demonetisation drive, says Narendra Modi declared all Indians 'crook' ". From: <http://www.india.com/news/india/amartya-sen-criticises-demonetisation-drive-says-narendra-modi-declared-all-indians-crook-1665167/>
- [32] "Demonetisation damage greater than its benefits, says Kaushik Basu". Business Standard. 12 November 2016. Retrieved 12 November 2016. From: http://www.business-standard.com/article/economy-policy/demonetisation-damage-greater-than-its-benefits-says-kaushik-basu-116111101733_1.html
- [33] PTI (11 November 2016). "GST good economics; demonetisation is not: Kaushik Basu". The Economic Times. Retrieved 12 November 2016. From: <http://economictimes.indiatimes.com/news/economy/policy/gst-good-economics-demonetisation-is-not-kaushik-basu/articleshow/55375545.cms>
- [34] "In India, Black Money Makes for Bad Policy". The New York Times. 27 November 2016. From: <http://www.nytimes.com/2016/11/27/opinion/in-india-black-money-makes-for-bad-policy.html>
- [35] Sen, Pronab (14 November 2016). "Demonetization is a hollow move". From: <http://www.livemint.com/Opinion/uzvIE84KGXy1xvp06pTazM/Demonetization-is-a-hollow-move.html>
- [36] Patnaik, Prabhat (9 November 2016). "Demonetization: Witless and Anti People". The Citizen. Retrieved 13 November 2016. From: <http://www.thecitizen.in/index.php/NewsDetail/index/1/9151/Demonetization-Witless-and-Anti-People>
- [37] Ninan, T. N. (2 December 2016). "T N Ninan: Four weeks later" – via Business Standard. From: http://www.business-standard.com/article/opinion/t-n-ninan-four-weeks-later-116120201131_1.html
- [38] "HDFC Chairman Deepak Parekh hits out at demonetisation drive, says it derailed economy". 8 December 2016. From: <http://www.financialexpress.com/economy/hdfc-chairman-deepak-parekh-hits-out-at-demonetisation-drive-says-it-derailed-economy/467791/>
- [39] "HDFC's Deepak Parekh says economy has derailed in short term due to demonetisation". 8 December 2016. From: <http://www.firstpost.com/business/hdfcs-deepak-parekh-says-economy-has-derailed-in-short-term-due-to-demonetisation-3145486.html>
- [40] "Demonetisation idea wrong, don't blame its execution: Rajiv Bajaj". 17 February 2017. From: <http://www.indianexpress.com/article/business/economy/demonetisation-idea-wrong-dont-blame-its-execution-rajiv-bajaj-4529180/>
- [41] "One Month Of Pain And Harrassment, PM Must Clarify: Mamata Banerjee". From: <http://www.ndtv.com/india-news/one-month-of-pain-and-harrassment-pm-must-clarify-mamata-banerjee-1635504>
- [42] ANI (12 November 2016). "Demonetization is nothing but a big BJP scam: Kejriwal" – via Business Standard. From: http://www.business-standard.com/article/news-ani/demonetization-is-nothing-but-a-big-bjp-scam-kejriwal-116111200849_1.html
- [43] "Kerala CM Pinarayi Vijayan, ministers stage dharna outside RBI office Latest News & Updates at Daily News & Analysis". 18 November 2016. From: <http://www.dnaindia.com/india/report-kerala-cm-pinarayi->

- vijayan-ministers-on-dharna-say-demonetisation-destroying-cooperative-sector-2274629
- [44] Raghav Bahl (8 November 2016). "Dear PM Modi, Demonetisation 'Brahmastra' Could Have Spared The Poor". Bloomberg Quint. Retrieved 12 November 2016. From: <http://www.bloomberquint.com/opinion/2016/11/11/dear-pm-modi-demonetisation-brahmastra-could-have-spared-the-poor>
- [45] "Govt's demonetisation move fit for country's security, development: HC". The Economic Times. 10 November 2016. Retrieved 10 November 2016. From: http://economictimes.indiatimes.com/articleshow/55353472.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst
- [46] "PILs in Supreme Court against making Rs 500, Rs 1000 notes illegal". India Today. 10 November 2016. Retrieved 10 November 2016. From: <http://indiatoday.intoday.in/story/pils-supreme-court-rs-500-rs-1000-notes-illegal/1/807124.html>
- [47] "Months before demonetisation, many ministers had large amount of cash in hand: Report". 2 December 2016. From: <http://www.indianexpress.com/article/india/demonetisation-ministers-cash-jaitley-modi/>
- [48] Bhatnagar, Gaurav Vivek. "Did Ministers Queue Up To Exchange Their Currency Notes, Asks RTI Activist". From: <http://www.thewire.in/83783/ministers-queue-exchange-currency-notes-asks-rti-activist/>
- [49] Forbes, Steve. "What India Has Done To Its Money Is Sickening And Immoral". From: <http://www.forbes.com/sites/steveforbes/2016/12/22/what-india-has-done-to-its-money-is-sickening-and-immoral/>
- [50] "HTLS 2016: Demonetisation gains uncertain, says Nobel laureate Paul Krugman". 2 December 2016. From: <http://www.hindustantimes.com/india-news/htls-2016-demonetisation-gains-uncertain-says-noble-laureate-paul-krugman/story-dFszJMERSydirqemQXcZ7L.html>
- [51] "Modi's demonetisation move a reckless bungle: Foreign media". The Times of India. 28 December 2016. From: <http://timesofindia.indiatimes.com/india/modis-demonetisation-move-a-reckless-bungle-foreign-media/articleshow/56210502.cms>
- [52] Singh, gayeti. "Worst Mistake of PM Modi". From: <http://www.thecitizen.in/index.php/OldNewsPage/?Id=9260>
- [53] "Demonetisation atrociously planned, little evidence it combatted black money: New York Times". From: <http://indiatoday.intoday.in/story/demonetisation-atrociously-planned-and-executed-nyt/1/854314.html>
- [54] "Little evidence that demonetisation has succeeded in combating corruption: New York Times". 10 January 2017. From: <http://www.indianexpress.com/article/india/indians-suffering-after-atrociously-planned-note-ban-nyt-4468403/>
- [55] "India's Botched War on Cash". From: <https://hbr.org/2016/12/indias-botched-war-on-cash>
- [56] Goswami, Ranjit (25 November 2016). "Modi's bank note ban has inflicted pointless suffering on India's poorest". The Conversation. Retrieved 25 January 2017. From: <https://theconversation.com/modis-bank-note-ban-has-inflicted-pointless-suffering-on-indias-poorest-69157>
- [57] Livemint (24 November 2016). "Cash crunch: Analysts cut India GDP growth forecast". From: <http://www.livemint.com/Politics/gG3pF45hFU53GyXE1BwIuJ/Cash-crunch-Analysts-cut-India-GDP-growth-forecast.html>
- [58] "Demonetisation a big blow! GDP growth may dip below 6% in FY17". 26 December 2016. From: <http://www.financialexpress.com/economy/economists-bearish-on-the-india-growth-story-predicts-sub-6-per-cent-for-fy-2017/486381/>
- [59] "World Economic Outlook Database". International Monetary Fund. October 2016. From: <http://www.imf.org/external/pubs/ft/weo/2016/02/weodata/weorept.aspx?sy=2014&ey=2021&scsm=1&ssd=1&sort=country&ds=.&br=1&pr1.x=26&pr1.y=13&c=534&s=NGDPD&grp=0&a=>
- [60] Choudhury, Saheli Roy (17 January 2017). "India set for slowest growth period as demonetization dents economy". From: <http://www.cnbc.com/2017/01/17/india-demonetisation-news-india-could-see-four-consecutive-quarters-of-below-7-percent-growth.html>
- [61] Seth, Dilasha (6 December 2016). "Slowdown due to demonetisation: PMI services shrinks in November after 17 months" – via Business Standard. From: http://www.business-standard.com/article/economy-policy/slowdown-due-to-demonetisation-pmi-services-shrinks-in-november-after-17-months-116120501411_1.html
- [62] "5 Bleak Numbers That Show Demonetisation Impact On The Economy". From: <http://www.huffingtonpost.in/2017/01/03/five-worrying-numbers-that-show-demonetisation-impact-on-economy/>
- [63] "Demonetisation impact: Three sets of numbers tell us how Modi's gamble has slowed the economy". 3 January 2017. From: <http://www.firstpost.com/business/demonetisation-impact-three-sets-of-numbers-tell-us-how-modis-gamble-has-slowed-the-economy-3185066.html>

Other References

- [64] Chatterjee, B. & Banerji, A. (2016), The Impact of Demonetization in India. squirepattonbogg.com. 25405/12/16, pp. 1-2.
- [65] Deloitte (2016), Demystifying demonetization. pp. 1-9.
- [66] Gorlamandala, R. (2016), Demonetisation is the tool but cashless economy is the goal of India. www.tat.capital.com. December 31, pp. 1-14: Tat Capital - Corporate Finance & FX Advisory, Sydney.
- [67] HDFC Bank Investment Advisory Group (2016), Demonetization and its impact - Event Update. November 11, pp. 1-3.
- [68] Mattewos, K. (2016), Challenges and Prospect of E-Banking in Ethiopia. January 22, pp. 1-70: Addis Ababa University, Ethiopia.
- [69] Sabnavis, M. & Sawarkar, A. (2016), Economic consequences of demonetization of 500 and 1000 Rupee Notes. CARE Ratings Professional Risk Opinion. www.careratings.com, November 09, pp. 1-4.