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Impact of Demonetization on Real Estate Market in India

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Abstract: In India, Construction Is The Second Largest Industry After Agriculture. Construction Output As % Of GDP Is 7.2%. 35 Million People Which Are 16% Of Working Population In India Work In Construction Industry. There Are About 75 Large Companies And 28000 Organized Companies In This Sector In India. The Size Of The Indian Real Estate Market Is Estimated At USD 12 Billion And It Is Currently Growing At Rate Of About 30% Annually. 2016-17 Had Been The Years Where We Had Seen The Results Of The Active Government Intervention In Terms Of The Demonetization, Real Estate Regulatory Act And GST In India. While There Is Still A Lot More That The Government Can And Claims That It Will Do, The Fact That Customers Still Need Homes Will Set In. This, Complimented With Lower Real Estate Rates, Lower Interest Rates And Better Incentives To Customers To Purchase Homes Will Go A Long Way In Rebuilding The Entire Real Estate Industry. Although The Initial Real Estate Boom Was Concentrated In Places Like Bangalore And The National Capital Region Of Delhi (Including Gurgaon), More Recently The Geographical Spread Has Widened. There Has Been A Significant Shift In Real Estate Market From Metros To Its Suburbs And To Tier II And Tier III Cities. Lease Rentals And Occupancies Have Been Picking Up Steadily And There Is An Increasing Demand For Quality Infrastructure Across Various Segments Of The Real Estate Sector. The Demand For New Office Space In India Has Grown From An Estimated 3.9 Million Square Feet In 1998to Over 16 Million Sq. Ft. In 2004-05. 70% Of The Demand For Office Space In India Is Driven By Over7,000 Indian IT And ITES Firms And 15% By Financial Service Providers And The Pharmaceutical Sector. Cumulative Demand For Office Space In India Over The Next Two Years (2006-08) Is Estimated To Be In Excess Of 45 Million Sq. Ft. The Indian IT-ITES Industry, Estimated At USD 36.3 Billion In 2006 Has Grown At A CAGR Of 36% Over The Last Decade And By 2008, Is Expected To Account For Over 7% Of India 'S GDP And 30% Of Foreign Exchange Inflows. In 2005 Alone, IT/ITES Sector Absorbed A Total Of Approx. 30million Sq. Ft. And Is Estimated To Generate A Demand Of 150 Million Sq. Ft. Of Space Across Major Cities By 2010. South Indian Cities Like Bangalore, Chennai And Hyderabad Along With NCR (National Capital Region) Continue To Attract The Major Share Of IT/ITES And Business Investment. However, Secondary Cities, Like Pune, Chandigarh, Indore, Kochi And Kolkata Are Now Emerging As The New Preferred Destinations For These Companies Due To Their Cost And Infrastructure Advantages.

The Study Incorporates The Following Main Objectives:1) To Measure The Impact Of Demonetization On Real Estate Demand In India, Ii) To Find Out The Challenges In Indian Real Estate Market After Demonetization And Iii) To Find Out The Opportunities In Indian Real Estate Market.

I. Introduction

Real Estate Industry Is The Second Largest Employer After Agriculture And Is Slated To Grow At 30 Per Cent Over The Next Decade. The Real Estate Sector Comprises Four Sub Sectors, Which Arei) Residential Ii) Retail Iii) Hospitalityiv) Commercial. Real Estate Affects The Economy By Being A Critical Driver Of Economic Growth. It Is The Pre-Eminent Asset Class Which Will Be Most Impacted By Global Monetary

Conditions And Investment Activity And Which, In Turn, Has The Power To Most Impact National And International Economies. Construction Of New Buildings Is A Component Of Gross Domestic Product. It Includes Residential, Commercial And Industrial Buildings. It Contributes 7.2 Percent, Or \$1.2 Trillion, To The Indian Economy. As An Industry, Real Estate Activity Is Defined As Any Economic Transaction Related To The Purchase, Sale, Owner-Operation Or Lease Of Property. This Also Includes Income-Generating Residential Properties, Such As Apartment Buildings And Single-Room Rentals.Commercial Companies Are The Largest Global Players In The Sector. A Commercial Company Might Manage Retail Malls, Own Hotel Chains Or Lease Out Restaurant Spaces Or Hunting And Fishing Property.Real Estate Services Are Included In The Sector As Well. Examples Of Real Estate Services Include Brokerages, Property Management, Appraisers, Investment Property Analysts And Other Consultants.

As Far As Production Factors – Land, Labour And Capital – Are Concerned, The Real Estate Sector Directly Correlates To Using Land And Generating Rental Income. There Is Little Doubt That The Efficacy Of Real Estate Markets Significantly Affects Global Economic Output. Proof Of This Can Be Seen In The Financial Crisis Of 2007-2008. Two Major Industries Were Involved: Real Estate And Finance/Banking. Single-Family Home Construction And Mortgages Became Overleveraged And Improperly Valuated. When Real Estate Prices Declined, Purchases And Rents Dried Up, Threatening Much Of The Western World With Recession. Even Though Total Revenue From Real Estate Transactions Only Accounts For 3% To 4% Of Total World Output, It Is Likely That Real Estate's Impact On The Global Economy Is Exponentially Greater Than That.

Globally, The Commercial And Residential Real Estate Industry Generated An Estimated \$3 Trillion In 2014, With Some 35% Of Sector Revenue Coming From Leasing Activities. Other Revenue Was Attributed To Net Gains From Property Sales, Brokerage Fees And Rental Income. Most Estimates Of Total Global Gross Domestic Product Fall In The \$75 Trillion To \$90 Trillion Range, Meaning The Real Estate Sector Makes Up Between 3.33% And 4% Of Total World Output.

Till Now The Real Estate Sector Was Dominated By A Few Players Especially Those With Strong Links With The Government. Many Of Them Didn't Have Technical Background Or Knowledge Of Construction Or Management. Till Now, The Valuation Systems Didn't Really Exist In Terms Of The Cost Of The Land, The Appreciation Per Year Towards The Cost Of Construction Etc. So The Seller Would Command The Price And Buyers, Depending On Their Need Had To Agree. Now The Sector Is Moving Towards The Organized Pricing Linked To The Demand And Supply Rather Than Just To The Builders' Demand.

Announcements Like Smart Cities, RERA, Housing For All And GST Will Bring Indian Real Estate At Par With The Global Cities. If You See, Major Cities Like Delhi, Mumbai, Bangalore And Chennai, Are Where People Wish To Come For Better Opportunities And These Cities Don't Have The Requisite Infrastructure To Cater. With The Smart Cities Coming Around These Major Cities, It Will Help In Providing Better Infrastructure And More People Would Get Better Prospects.

Every Sector Or Industry Has A Regulatory Body, So It's High Time That The Real Estate Sector Should Also Have Its Regulatory Body As Provided In RERA. Similarly, Housing For All Is A Bold Move By The Prime Minister Considering That Major Chunk Of The Population Is Under Poverty Line And Lives In Unorganized Sector. But To Realize It, The Real Estate Sector Should Get An Industry Status To Avail Cheaper Loans, Should Be Provided At Lower Rates And Housing Can Be Built Through A PPP (Public-Private-Partnership) Model. GST Will Help In Bringing Down The Cost To The Companies As Lot Of Manpower Is Used In The Accounts Department And It's Also Takes Lot Of Time. Though, The Effect Of GST Will Be Clear Once The Notifications And Rulings Are Out. The Biggest Challenge Today Is Lack Of Trust Among Customers. The Consumer Is Very Unsure About The Delivery Of The Project And The Intention Of The Builder Behind It. Now, With The New Policies Coming In, It Is Sure That Things Would Change And Market Will Move Towards Stabilization. The Main Objectives Of The Study Are Given Below.

- I) To Measure The Impact Of Demonetization On Real Estate Demand In India.
- Ii) To Find Out The Challenges In Indian Real Estate Market After Demonetization.
- Iii) To Find Out The Opportunities In Indian Real Estate Market.

II. Review Of Literature

According To A Study By Deloitte¹ On 'Optimize Opportunities In An Ever-Changing Environment' States That The Real Estate (RE) Industry Seems To Be On An Accelerating Disruption Curve Highlighted By Rapid Changes In Tenant Dynamics, Customer Demographic Shifts, And Ever-Increasing Needs For Better And Faster Data Access To Allow Improved Service And Amenities. Major Forward-Looking Developments Are Focusing On Items Such As Heat Mapping To Track Crowd Size And Energy Usage, Opt-In Mobile Apps To Help Collect Data About Users' Health And Activities, And Energy Savings Using A Micro Grid. These And

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¹Deloitte | www.deloitte.com

Other Fascinating Innovations Show Some Of The Initiatives RE Companies Are Deploying To Respond To The Overarching Themes Of Our Outlook Reports Of The Last Two Years—Technology Advancements That Are Disrupting The Ecosystem And Innovations That Can Help Companies Effectively Prepare For A Dynamic Future. Clearly, Cities Today Are No Longer Mere Aggregations Of Buildings And People. Moving Forward, As The Industry Prepares For Smart Cities And Mobility, RE Companies Seem To Have No Choice But To Be Constantly Aware Of New Developments In This Demanding Ecosystem. At A Broader Level, There Are Fast-Paced Advancements In Mobile Computing (5G Technology), Cognitive, And Artificial Intelligence, And Use Of Enhanced Data-Gathering Tools Such As Sensors, Which Are Widening The Gap Between Changes In Technology And Business Productivity (See Figure 1). Often Layering Into The Rapid Change Are Workforce Shifts In Age, Gender, And Race That Are Affecting How We Do Business And Redefining Both Cultural Norms And "Job/Career Satisfaction."

Based On In-Depth Research And Analysis As Well As Extensive Discussions With Industry Professionals, We Expect That RE Companies Could Maximize Value Creation And Growth By Prioritizing The Following Four Themes As They Plan For The Next 12-18 Months:

Accelerate Business: Unlock The Value Of Real Estate Investment Trusts (Reits);.

Avail Alternative Capital Options: Focus On RE Fintech Start-Ups;

Augment Productivity: Embrace Robotic And Cognitive Automation (R&CA).

Advance People: Reimagine Talent And Culture.

'The Time Square: A Property Guide'in December 2016 States That Global Economy Is Undergoing Tremendous Transformation & The Prevalent Binary Model, That Once Saw The World As Developed & Under-Developed Is Becoming Void. Increasingly, New Epicentres Of Power, Significance & Economic Prowess Is Emerging & Tantamount To Such Emerging Patterns, The Real Estate Industry Is Also Up For New Changes. Although The Traditional Favourites Continue To Consolidate A Strong Position, Emboldened By Higher Economic Activities & Employment Opportunities; Increasingly New Players Are Emerging On The Global Real Estate Landscapes, Attracting Both Institutional & Individual Investors.

The Year Passed By Has Also Seen Some Of The Major Geopolitical Realignments Including, BREXIT, Trump's Election To Presidency & Chinese Decision To Regulate Its Capital Outflow. Such Major Events Would Not Just Wield Significant Impact On Their Domestic Markets But The Vibrations Are Expected To Cascade Far & Wide Into Various Other Parts Of The Globe. USA Real Estate Industry Has Been Rallying Ahead This Year, Driven By Strong Internal & International Demand & Catalysed By Continuously Dwindling Unemployment & Expanding Wage Rates. Similar Strong Sentiments Prevail In Canadian Real Estate Markets, With Property Prices Surging At An Y-O-Y Rate Of Around 9.7%, Defying The General Sluggishness That The Economy Has Been Subject To, In The Recent Times. So Far London Has Showcased Certain Resilience & Not-Withstanding The Initial Jitters, Its Real Estate Market Has Showcased Recovery. However, The Future Of Its Real Estate Industry Still Lingers In Doldrums. In Europe, Germany Continues To Consolidate Its Strong Position In The Real Estate Industry With A Buoyant Residential & Commercial Real Estate Sector.In Central & Eastern Europe, Outsourcing Boom Is Fuelling The Commercial Real Estate Sector In Poland. Not Just In Europe, But Poland Is Making A Mark On The Global Outsourcing Map & Is Touted As The 3rd Largest Outsourcing Destination After China & India. Major Polish Cities Such As Krakow, Wroclaw, Tri-City, Poznan, Katowice, Lodz And Szczecin Are Attracting New Businesses Due To Better Cost & Availability Of Right Talent. By 2020, The Total BPO Jobs In Poland Are Expected To Reach 300,000, Demonstrating A 10% Y-O-Y Growth.Office Market In Russia Is Once Again Moving Up With A Total Office Uptake In Moscow In Tune Of 45 Million Sq. Ft In 2016, A Rise Of Threefold When Compared To A Year Before. The Monumental Growth In Office Real Estate In Moscow Has Been Ascribed To Larger Size Of The Transaction In 2016 & Growing Emphasis Amongst Companies To Renegotiate Deals & Leverage The Subdued Prices. However, Economic Woes & An Enlarging Social Inequality Continue To Cast Contingent Shadows On The Future Of Russian Residential Market, As The Sector Suffers From Sluggish Demand. With Economic Outlook Of The Country No Longer Looking Conducive For An Immediate Turnaround, The Residential Market Will Continue To Stay Subdued.

In **Middle East**, Dubai Real Estate Market Slowed Down After Rallying Ahead In The Recent Times. However, Known For Its Ferocious Ability To Reinvent & Rebuild Itself, The Emirate Is Pioneering A New Kind Of Real Estate; Set To Attract A Whole New Bunch Of Designers, Creative Professionals & Entrepreneurs From All Around The World. The City Has Started The Dubai Design District (D3) That Is A Purpose Built Creative Community Built To Cater To The Needs Of The Thriving Creative & Design Regional & Global Industry. The Place, Whose Coordinates Goes Much Deeper Than A Typical Design Neighbourhood& Offers Tremendous Potential For Regional & International Creative Minds To Live, Conduct Business, Collaborate & Thrive.Increasingly, The Chinese Are Becoming A Formidable Force In Global Real Estate Industry. In The 1st Nine Months Of 2016, The Chinese Contributed Around USD 18 Billions Of Investment In Global

Properties. However, The Recent Move By Chinese Government To Regulate Capital Outflow To Reverse The Weakening Of Local Currencies, Might Have Some Negative Impact On Real Estate Investment Scenarios. State Owned Enterprises In China, Would Not Be Allowed To Invest Over USD 1 Billion In International Real Estate.

However, Many Experts Believe That As Most Of The Deal Sizes Are Within USD 1 Billion, The Impact Should Be Minimal. It Is Also Believed That, Chinese Investors Both Individual & Institutional Will Continue To Invest In US Real Estate (San Francisco, LA, New York). Other Major Markets Such As Australia & Germany Are Expected To Be On The List Of Chinese Radar.In 2017, Real Estate Investment In The Global Real Estate Is Expected To Move Up The Curve. However, It Is Essential That Before Undertaking A Real Estate Decision, One Must Not Just Adopt A Tick Point Approach But Carefully Map All The Essential Investment Drivers Before Taking An Investment Decision. Rather Than Just Looking Out For Short Term Returns, The Real Mantra Should Be Long Term Capital Gains.

'CBRE Global Real Estate Outlook 2017' States That For The Past Five Years, Rapid Change Has Taken Place Against A Backdrop Of Weaker-Than-Normal Economic Growth; However, It Is Believed Likely That Growth Will Be Stronger In The Coming Years. The Mild Recession In The Oil And Commodities Sector Is Over, Unemployment Continues To Fall, And Governments Are Starting To Invest More In Much-Needed Infrastructure Upgrades. All Of The Real Estate Sectors Are In The Process Of Reinventing Themselves To Accommodate Technology-Driven Changes In Business Operations.²

According To The 'PWC Real Estate 2020: Building The Future' Report, Although The Rate Of Change Is Rapid, It Is The Most Exciting And Interesting Time To Be Involved In Commercial Real Estate. Demand For Private Capital For Real Estate Investment And Supporting Infrastructure Has Increased Enormously. In The Emerging Economies, The Great Migration To The Cities, Growing Population And Swelling Middle Class Are Creating A Desperate Need For More Urban Real Estate. In The Advanced Economies, The Cities Are Also Growing, Although Not So Rapidly, While Technology, Demographics And Environmental Issues Are Becoming New Value Drivers. Looking Forward To 2020 And Beyond, The Real Estate Investment Industry Will Find Itself At The Centre Of Rapid Economic And Social Change, Which Is Transforming The Built Environment. While Most Of These Trends Are Already Evident, Already, Thousands Of People Migrate From Country To City Across Asia, The Middle East, Latin America And Africa On A Daily Basis, Attracted By The New Wealth Of These Economies. By 2020, This Migration Will Be Firmly Established. The Cities Will Swell – And Some Entirely New Ones Will Spring Up. Meanwhile, The Growing Emerging Markets' Middle Class And Ageing Global Population Are Increasing Demand For Specific Types Of Real Estate. Subsectors Such As Agriculture, Education, Healthcare And Retirement Will Be Far Bigger By 2020.

High Energy Prices, Climate Changeand Governmentregulation Are Already Pushing Sustainability Up The Real Estate Agenda, But By 2020, Their Impact Will Be Far Greater. Technology Is Already Disrupting Real Estate Economics, But By 2020, It Will Have Reshaped Entire Sectors. And The Real Estate Community Will Have Taken A Greater Role In The Financial Ecosystem, In Part Moving Into The Space Left By Banks.

The New Era Of Real Estate Investment, To 2020 And Beyond, Is The Beginning Of A Time Of Unprecedented Opportunity For Real Estate Investors And Asset Managers, Although With Greater Risk. The Global Stock Of Institutional-Grade Real Estate Will Expand By More Than 55% From US\$29.0 Trillion In 2012, To US\$45.3 Trillion In 2020, According To Our Calculations. It May Then Grow Further To US\$69.0 Trillion In 2030. This Huge Expansion In Investable Real Estate Will Be Greatest In The Emerging Economies, Where Economic Development Will Lead To Better Tenant Quality And, In Some Countries, Clearer Property Rights. And It Will Play Out Across Housing, Commercial Real Estate And Infrastructure. Indeed, As Intense Competition Continues To Compress Investment Yields For Core Real Estate, Real Estate Managers Will Have Every Incentive To Search For Higher Yields Elsewhere.

The Real Estate Sector Is The Third Largest Employer (After Agriculture And Manufacturing) In India And Presently Employs Over 40 Million Workforces⁴. With Forward And Backward Linkages To Over 250 Sectors And Ancillary Industries, The Real Estate Sector Is The Third-Highest Contributor To The Indian Economy⁵. The Total Market Size Of Indian Real Estate Is Estimated To Have Doubled Since 2008 And Reached About INR7 Lakh Crore. India Has The Largest Housing Market In The World, With Over 75–80 Per

³https://www.pwc.com/sg/en/real-estate/assets/pwc-real-estate-2020-building-the-future.pdf

⁵Urban Indian Real Estate – Promising Opportunities, KPMG in India, August 2016.

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² CBRE and PWC Websites www.cbre.co.in https://www.pwc.in

⁴ Human Resource and Skills Requirements in the BCRE Sector, National Skill Development Corp., April 2015.

Cent Share In The Total Real Estate Market Size In India⁶. The Potential For Growth Is Significant As India Would Need To Develop Over 170 Million Houses Until 2030 To Meet The Needs Of The Rapidly Urbanising Population⁷.

The Construction Sector's Share In The Indian GDP Has Stayed Constant Between 7-8 Per Cent Over The Past Five Years⁸. Owing To The Impact Of Construction Delays And Demonetisation, Which Affected Residential Sales, The Growth In The Sector Remained Sluggish During 2016 And Is Expected To Decline From 3.9 Per Cent In 2015–16 To 2.9 Per Cent In 2016–179. The Indian Realty Attracted The Second-Highest Private Equity (PE) Investments During 2016, Which Increased By Over 62 Per Cent Y-O-Y To INR38,000 Crore¹⁰. However, The Foreign Direct Investment (FDI) In Construction Development Sector Remained Subdued With Only INR470 Crore Worth Of Investment Reported During January-September 2016¹¹. This Was Primarily Owing To Foreign Investors Preferring Quasi-Debt Route, Which Is Not Captured In The FDI. Grade A Leasing Activity In The Commercial Office Space Remained Upbeat During 2016, With Over 9 Per Cent Increase Compared With That Of The Previous Year. This Resulted In 2016 Recording The Highest Leasing Of Over 43 Million Square Feet (Msf), Primarily Driven By IT-Ites And Banking, Financial Services And Insurance (BFSI) Sectors¹². Due To Lack Of Quality Spaces In Completed Projects, The Year Saw Strong Pre-Leasing In Under-Construction Projects, Contributing To Nearly One-Fourth Share In The Total Leasing During The Year. The Institutional Credit To The Housing Sector Is Estimated To Have Grown By About 19 Per Cent During FY16. As A Result, The Total Outstanding Credit To The Housing Sector Has Reached INR12.5 Lakh Crore¹³. There Is Still Significant Potential For Credit Growth As Mortgage To The GDP Ratio In India Is Only 9, Far Below Than In The Developed Countries, Such As The U.S. (68 Per Cent) And Germany (42 Per Cent)¹⁴. The Urban Housing Shortage Is 19 Million Units, Of Which, 95.6 Per Cent Is In The Lower Income Group (LIG) And Economically Weaker Section (EWS)¹⁵. The Union Government Had Launched Pradhan Mantri Away Yojana - Housing For All (Urban) In June 2015, To Address The Urban Housing Shortage. The Government Aims To Achieve This Through Credit-Linked Subsidies And Public- Private Partnerships (PPP) Model. Residential Sales Across Top-Eight Cities In 2016 Fell To A Sevenyear Low Of About 245,000 Units, Owing To Subdued Demand Over The Past Three To Four Years. Similarly, New Residential Unit Launches, Too, Fell To Pre-2008 Crisis Levels With Only 176,000 Unit Launches During 2016^{16} .

The Real Estate Sector Has Been Facing A Number Of Issues, Of Which Some Of The Major Ones Are Enlisted Here. While There Is A Significant Shortage Of Housing In Urban Regions, It Is Estimated That The Top-Eight Cities In India Have Approximately 6.5 Lakh Units Of Unsold Housing Stock. At The Current Rate Of Absorption, It May Take Over Five Years To Clear The Housing Stock In Regions, Such As Delhi–NCR, Which Has The Highest Unsold Inventory¹⁷. There Is A Scarcity Of Developable Land In Urban Areas, And Peripheral Regions Of Cities Lack Appropriate Urban Infrastructure, Which Escalates The Final Project Cost. One Of The Major Issues That The Real Estate Sector Is Facing Is Lack Of Clear Land Titles And Land Title Insurance, Which Lead To Litigations And Causes Project Delays. Despite The Real Estate Sector Contributing The Third Highest Share To The Indian Economy, The Share In Outstanding Loans From Banks To The Sector Is Extremely Low At 3 Per Cent¹⁸. This Results In Limited Access To Long-Term And Low-Cost Funding Channels, Especially Through Banks And External Commercial Borrowings (ECB) Route. The Real Estate Sector Has Been Grappling With Liquidity Issues And Piling Debt. The Total Outstanding Debt Of

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⁶Real Estate, IBEF, November 2016; and KPMG in India's analysis, 2016-17.

⁷ Global Construction 2030, GCP Global and Oxford Economics, November 2015.

⁸ Construction industry can help India cope up with global doom and gloom, Business Standard, 22 January 2016; http://www.business-standard.com/article/news-cm/construction-industry-can-help-india-cope-up-with-global-doomand-gloom-study-116012200551_1.html; accessed on 31 January 2017.

⁹Economic Survey 2016-17, Government of India, January 2017; and KPMG in India's analysis, 2016-17.

¹⁰ PE inflows in real estate rise 62% in 2016 on favourable policy moves, ET Realty, 16 January 2017 http://realty.economictimes.indiatimes.com/news/industry/pe-inflows-in-real-estate-rise-62-in-2016-on-favourablepolicy-moves-by-govt/56592994, accessed on 31 January 2017

¹¹Fact sheet on Foreign Direct Investment, Department of Industrial Policy and Promotion, November 2016; and KPMG in India's analysis, 2016-17.

¹² MarketView, India Office, Q4 2016, CBRE, January 2017.

¹³ Indian Mortgage Finance Market Update for FY2016, ICRA, August 2016.

¹⁴Statistics, Housing Finance Network, assessed in November 2016.

¹⁵Report of the technical urban group (TG-12) on urban housing shortage 2012-17, MoHUPA, September 2012.

¹⁶ India Real Estate, Residential and Office, July-December 2016, Knight Frank India, January 2017.

¹⁷Palate of the India-focused real estate PE investor, JLL India, 2016, and KPMG in India's analysis, 2016-17.

¹⁸Sectoral Deployment of Bank Credit- June 2016, RBI; KPMG in India analysis, August 2016.

Listed Real Estate Developers In India Has Risen From INR25,000 Crore In FY07 To Over INR83,000 Crore In FY16. Lack Of A Strong Micro Finance Sector Makes It Difficult For The Economically Weaker Section (EWS) And Lower Income Group (LIG) To Secure Housing Finance Credit .With Over 30–35 Regulatory Approvals Required To Be Obtained By A Developer To Develop A Real Estate Project In India, The Whole Process Becomes Cumbersome And Also Leads To Delays, Which Inflates The Project Cost By 20–30 Per Cent¹⁹. Higher Rates Of Statutory Fees And Taxes, Including Multiple Taxations Inflate The Cost Of Construction, Making Affordable Housing Projects Financially Unviable For The Private Sector Developers. Unfavourable Tax Structure For Real Estate Impacts The Launch Of Real Estate Investment Trusts (Reits) In India.

The Year 2016 Has Been Transformative And Disruptive For The Real Estate Sector. The Union Government Has Undertaken Several Policy Initiatives To Improve Transparency And Accountability, And Improve Liquidity In The Sector.

- The Real Estate (Regulation & Development) Act, 2016 Was Passed By The Parliament In March 2016, Which Was A Landmark Legislative Reform For Indian Realty. The Act Would Come Into Implementation From May 2017. This Is Expected To Weed Out Corruption From The System
- The Constitutional Amendment Bill For Introduction Of Goods And Services Tax (GST) Has Been Passed. Further, Model GST Law Has Been Released, Which Is Likely To Be Implemented From 1 July 2017. This Is Viewed As A Historic Tax Reform, And Is Likely To Benefit The Real Estate Sector, Owing To Expected Reduction Of The Impact Theexisting Multiple Taxation.
- The Union Government In November 2016 Demonetised Indian Currency Notes Of INR500 And INR1,000, With An Aim To Bring Back Unaccounted Money Into The Formal Economy. This Is Expected To Improve The Liquidity Of The Banking System, Thereby Allowing Banks To Increase Lending. Also, This Move Is Likely To Expand The Tax Base That May Lead To Higher Tax Revenues
- After The Central Government Allowed Tax Pass Through Status To Reits And Invits In The Previous Year's Budget, The Securities And Exchange Board Of India (SEBI) Has Recently (January 2017) Allowed Mutual Funds (Mfs) To Invest In Reits And Invits
- The Benami Transactions (Prohibition) Amendment Act, 2016, Has Been Cleared By The Parliament And Has Come Into Force From 1 November 2016. The Act Has Provisions That Would Allow The Adjudicating Authorities To Confiscate Benami Properties. ²⁰

Body Of Paper

Qualitative Research Is A Major Field Of Academic Research Study, And The Basis For Awarding Thesis, Dissertation And Project Work In The US And Worldwide. The Aim Of A Qualitative Research May Vary With The Disciplinary Background, Such As A Market Researcher Seeking To Gather An In-Depth Understanding Of Human Behaviour And The Reasons That Govern Such Behaviour Against Aa Particular Product/ Service Or Situation. The Qualitative Method Investigates The Why And How Of Decision Making, Not Just What, Where, When, Or "Who", And Has A Strong Basis In The Field Of Sociology To Understand Government And Social Programs, And Is Popular Among Political Science, Social Work, And Education Majors. Qualitative Data Is Typically A Descriptive Data And As Such Is Harder To Analysis Than Quantitative Data.

The Study Uses Mostly Primary Data For Analysis And Also Uses Some Secondary Source Of Data. It Incorporates Structured Questionnaire For Data Collection Through Direct Interview Method. The Sampling Detail Is As Follows.

Sampling Method: Judgmental Sampling

Sample Size: One Hundred

Likert Scale Provides A Great Way Of Measuring Attitudes, Knowledge, Perceptions, Values And Behavioural Changes. A Likert-Type Scale Involves A Sense Of Statement That Survey Respondents May Choose From, I.E., It Is An Ordered Scale From Which Respondents Choose One Option That Best Aligns With Their View. It Is Often Used To Measure Respondent's Attitude By Asking The Extent To Which They Agree Or Disagree With A Particular Question Or Statement. A Typical Scale Might Be "Strongly Disagree, Disagree, Neutral, Agree, Strongly Agree".Likert (1932) Developed The Principle Of Measuring Attitudes By Asking People To Respond To A Series Of Statements About A Topic, In Terms Of The Extent To Which They Agree With Them And So Tapping Into The Cognitive And Affective Component Of Attitude.Likert-Type Or

¹⁹Urban Indian Real Estate – Promising Opportunities, KPMG in India, August 2016.

²⁰Benami Act provisions to come into force from 1 November, Livemint, 29 October 2016; http://www.livemint.com/Politics/kl34fv6i685B7r5u0NkEQK/Benami-Act-provisions-to-come-into-force-from-1- November.html, accessed on 31 January 2017.

Frequency Scales Use Fixed Choice Response Formats And Are Designed To Measure Attitudes Or Opinions (Bowling 1997, Burns & Grove, 1997). These Ordinal Scales Measure Levels Of Agreement/ Disagreement.It Assumes That The Strength/ Intensity Of Experience Is Linear, I.E. On A Continuum From Strongly Agree To Strongly Disagree And Makes The Assumption That Attitudes Can Be Measured. Respondents Maybe Offered A Choice Of Five To Seven Or Even Nine Pre-Coded Responses With The Neutral Point Being Neither Agree Nor Disagree.

In Its Final Form, The Likert Scale Is A Five (Or Seven) Point Scale Which Is Used To Allow The Individual To Express How Much They Agree Or Disagree With A Particular Statement. This Type Of Question Is Very Useful When You Need An Overall Measurement Of A Particular Topic, Opinion Or Experience. When You Use These Questions, Simultaneously You Can Collect Data On Contributing Factor. It Is Very Common To Use Likert-Type Scales When Researchers Want To Evaluate The Level Of Satisfaction For A Recent Shopping Or Visiting Experience. Strongly Agree/ Agree/ Neutral/ Disagree/ Strongly Disagree. Each Of Five (Or Seven) Responses Would Have A Numerical Value Which Would Be Used To Measure The Attitude Under Investigation.

The Responses Received For Analysis Of Factors In This Study Resulted In Such Qualitative Data. So For Further Understanding And Inferring The Outcomes Of The Responses For The Demand Patterns Of Real Estate Market, We Employed Likert Scale As A Tool.

For Our Study We Have Adopted The Following Likert Scale Mode:

- 1. Least Impact
- 2. Slight Impact
- 3. Average Impact
- 4. Considerable Impact
- 5. Great Impact

The Study Incorporates 26 Factors²¹ Which Are Measure The Impact Of Demonetization On Them Through The Real Estate Buying Behaviour In India. The Details Of The Factors Are Given Below In Table No. 1.

Factors Influencing Real Estate Buying Employment Rate F1 2 Industry Innovation F2 3 Customers Buying Behaviour F3 4 Population Trend F4 5 Government Policies/ Sub Sides F5 6 Interest Rates F6 7 Economic Growth F7 8 Demographics F8 9 F9 Land Price 10 Economical Factor F10 11 Housing Demand F11 Construction Quality F12 12 Political Stability F13 13 14 Aging Population F14 15 Infrastructure Funding F15 16 Global Change And Uncertainty F16 Real Estate Capital Markets Liquidity 17 F17 18 Land Regulations F18 Rates Of Inflation 19 F19 20 Corporate Culture F20 21 Customer Personal Factors F21 Social Factors (Family/ Role & Status/ Reference Group) 22 F22 23 Cultural Factors (Religion/ Language) F23 24 F24 Overall Indian Economy 25 F25 Overall Impact Of Demonetization On Real Estate Demand F26

Table No. 1: Factors Influencing Real Estate Buying

 $\frac{file:///C:/Users/Dr.\%20Jonardan\%20Koner/Downloads/Revitalising\%20Indian\%20Real\%20Estate\%20GRI\%20}{2016.pdf}$

²¹Dr. C. Ramanigopal (2013), 'Challenges and Opportunities of Knowledge Management in Real Estate Sector', Indian Journal of Applied Research, Vol. 3, Issue 5, pp.446-450. https://www.projectguru.in/publications/impact-demonetisation-real-estate-sector/

The Study Has Also Incorporates 'Factor Analysis' To Identify The Effective Factors Which Have Impacted By Demonetization. Therefore, As A Data Reduction Method, The Factor Analysis Has Been Used To Extract The Key Factors From The Identified Twenty-Six Factors.

III. Results

The Data Summary Of The Filled Questionnaire Is Given Below. In This Data Sheet, Total 100 Respondents Have Given Their Ratings On Each 26 Factors By Using Likert's Scale Of 5 Points.

Table No. 2. Data Summary Of Filled Questionnaire

																	_									
Factors	Et	D4	F3	D4	F5	E/C	177	ro	FO	F10	P11	F12	D12	E14	Pie	E16	F17	F10	F10	F20	Eas	Faa	Faa	F24	Das	E24
	FI	FZ	13	14	ro	ro	r/	ro	ry	F10	FII	F12	F13	F14	F13	F10	F1/	F18	F19	FZ0	F21	FZZ	F 23	F 24	F45	F 20
Respo-																										
ndent		_	7.0	100			0.00	-	7.	50400		8540.		//Sa 11				279-71	v	-	-		20		100	_
1	2	3	3	2	1	4	2	2	4	3	2	5	3	1	3	2	3	4	4	3	2	2	4	2	3	5
2	1	1	1	1	2	4	2	2	2	2	1	1	2	2	1	1	2	1	2	2	2	2	1	3	2	1
3	2	1	2	1	3	4	3	2	2	3	2	1	2	1	3	2	3	2	3	3	2	2	2	4	3	3
5	2	1	2	1	2	4	3	2	4	3	2	3	2	2	1	2	3	2	3	3	1	2	1	3	2	3
6	2	1	2	2	2	4	2	2	3	2	2	2	2	2	1	1	2	1	2	2	2	2	1	3	2	3
7	1	2	2	1	3	4	4	3	3	3	2	2	2	2	3	3	3	3	3	3	2	3	3	2	3	3
8	1	2	2	1	3	4	3	3	3	3	2	3	2	2	3	2	3	2	3	2	3	3	2	2	3	3
9	1	1	2	1	3	4	2	2	3	2	1	1	2	2	1	1	2	1	2	2	3	2	2	1	3	3
10	2	1	1	1	2	4	2	2	3	3	2	2	2	2	2	2	1	3	2	2	2	1	3	2	3	3
11	1	2	1	1	3	4	4	2	2	2	2	1	2	2	1	1	2	1	2	2	2	2	1	3	2	1
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13	2	1	2	1	2	4	2	2	3	2	3	2	3	2	3	3	2	3	4	2	0	3	2	3	2	3
14	2	1	1	1	2	4	2	2	2	2	1	1	2	2	1	1	2	1	2	2	2	2	1	3	2	1
15	2	1	2	1	3	2	2	1	1	2	3	2		1	2	1	2	1	2	1	3	2	1	0	1	3
16	4	2	4	3	5	4	3	0	3	0	2	4	2	4	3	4	5	4	0	3	2	4	1	5	5	2
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19	1	5	2	2	1	2	2	1	1	1	2	1	1	1	4	4	4	1	1	1	1	1	1	5	1	1
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36	4	3	3	3	4	4	4	4	4	4	4	4	4	3	3	4	4	4	4	3	3	3	3	4	3	3
37						4		3	3	-	3			2				3		3	2	-	_			3
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		1	2				4	3			-		77.2	1	3	3	_	2		2	2	3		3	-	3
39 40	1	1	2	1	2	4	3	3	2	3	3	2	1	2	1	2	3	2	3	2	3	2	2	3	2	3
41	1	2	-	-	2		-	3	_	-	-		1	-		-		2		_	3	2	3	2	3	3
-	-	_	2	1	3	4	4		2	2	2	1	1	2	1	2	3	-	2	2		_				
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44	1	1	2	1	2	4	3	3	4	2	3	2	1	2	2	2	3	2	3	2	3	2	3	2	3	3
45	1	1	1	1	2	4	2	2	2	2	1	1	2	2	1	1	2	1	2	2	2	2	1	3	2	1
46	1	2	2	1	2	4	3	3	2	3	2	2	2	2	1	1	2	1	2	2	2	2	1	3	2	1
47	1	2	1	2	2	4	3	3	2	2	3	2	1	2	1	2	3	2	2	3	3	2	3	3	2	3
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52	4	4	5	5	5	4	4	0	4	3	4	2	2	2	3	3	5	4	5	2	1	1	3	4	4	5
53	2	3	4	2	4	2	4	3	2	4	4	3	1	1	3	4	4	3	2	2	4	3	1	3	4	2
54	5	4	3	3	3	5	4	5	5	4	3	4	4	3	3	3	3	3	3	3	3	3	1	4	3	1
55	2	1	3	4	3	1	1	1	4	3	3	3	1	3	4	3	3	2	2	4	4	4	4	3	5	3
56	3	1	3	1	2	4	3	3	4	3	3	3	2	4	3	2	3	3	3	2	2	3	2	2	3	3
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74	2	1	1	3	3	5	4	3	5	5	4	5	1	1	2	1	4	5	5	1	5	5	5	5	3	2
75	3	2	3	5	4	5	5	2	3	4	2	3	5	3	2	4	5	5	4	2	4	4	5	5	5	5
76	5	4	5	3	5	5	3	3	5	5	5	5	3	5	3	4	4	5	5	4	1	1	1	3	5	5

	_	_	_		_			_	_				_	_	_	_	_	_		_	_	_				_
77	3	3	4	2	4	5	5	5	5	4	3	3	1	1	3	3	3	3	4	3	1	4	1	5	3	1
78	3	4	4	4	3	3	4	3	4	3	4	4	3	3	4	4	3	3	4	4	4	3	2	4	4	3
79	1	1	4	4	3	4	4	1	4	5	5	4	4	2	4	1	1	1	1	1	3	4	1	4	4	3
80	3	2	4	3	4	4	4	3	4	4	2	3	3	2	3	4	4	4	4	2	3	2	3	3	4	4
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97	3	4	5	3	4	3	5	4	5	4	5	5	5	3	5	4	4	5	3	4	3	4	3	4	4	4
98	4	3	5	4	3	4	3	4	5	3	5	4	5	3	4	2	5	4	3	1	5	3	1	5	2	3
99	4	4	5	5	3	4	4	4	3	4	3	4	4	5	4	5	3	4	4	3	5	4	4	4	4	3
100	4	3	5	3	4	3	4	5	3	4	5	4	4	3	5	4	3	4	5	4	5	4	5	4	5	3
Average	3	2	3	2	3	4	3	3	4	3.3	3.3	3.1	2.6	2.7	2.9	2.8	3.2	3.1	3.2	2.8	3	3.1	2.6	3.4	3.4	3.2
Std. Dev.	1	1	1	1	1	1	1	1	1	1.2	1.1	1.4	1.3	1.1	1.1	1.2	1	1.2	1.1	1	1.1	1.1	1.2	1.1	1	1.1

Factor Analysis

The Study Incorporates Factor Analysis For The Selected Factors For Identifying The Core Factors Affecting The Demand Of Real Estate After The Announcing Of Demonetization On November 8, 2016. This Technique Was Considered Appropriate As It Requires No Pre-Existing Of Functional Relationships And Is A Well-Known For Data Reduction. It Is Used To Reduce Large Number Of Variables Into A Few Numbers Of Core Factors.

Test Adequacy Of Sample

The Kaiser-Meyer-Olkin Is The Measure Of Sampling Adequacy, Which Varies Between 0 And 1. The Values Closer To 1 Are Better And The Value Of 0.6 Is The Suggested Minimum. The Bartlett's Test Of Sphericity Is The Test For Null Hypothesis That The Correlation Matrix Has An Identity Matrix. Taking This Into Consideration, These Tests Provide The Minimum Standard To Proceed For Factor Analysis.

Test Hypothesis Regarding Interrelationship Between The Variables

Null Hypothesis H0: There Is No Statistically Significant Interrelationship Between Variables Affecting The Performance Of Real Estate Market In Pune Due To Demonetization.

Alternate Hypothesis H1: There May Be A Statistically Significant Interrelationship Between Variables Affecting The Performance Of Real Estate Market In Pune Due To Demonetization.

Results Of KMO And Bartlett's Test

KMO and Rartlett's Test

Kaiser-Meyer-Olkin I Adequacy.	Measure of Sampling	.864
Bartlett's Test of	Approx. Chi-Square	1473.925
Sphericity	df	325
	Sig.	.000

Table No. 3. KMO And Bartlett's Test

Normally, 0 < KMO < 1

If The Value Of KMO Is Greater Than 0.5 Then The Sample Is Adequate. Here, KMO = 0.864, Which Indicates That The Sample Is Adequate And We May Proceed With The Factor Analysis.

Bartlett's Test Of Sphericity

Taking A 95% Level Of Significance, A = 0.05

The P-Value (Sig.) Of .000 < 0.05, Therefore The Factor Analysis Is Valid.

As P <A, We Therefore Reject The Null Hypothesis H0 And Accept The Alternate Hypothesis (H1) That There May Be Statistically Significant Interrelationship Between Variable. The Kaiser-Meyer Olkin (KMO) And Bartlett's Test Measure Of Sampling Adequacy Was Used To Examine The Appropriateness Of Factor Analysis. The Approximate Of Chi-Square Is 1473.925 With 325 Degrees Of Freedom, Which Is Significant At 5 %.. The KMO Statistic Of 0.864 Is Also Large (Greater Than 0.50). Hence Factor Analysis Is Considered As An Appropriate Technique For Further Analysis Of The Data.

Eigen Values (Select Those Components With Eigen Values >= 1)

The Initial Components Are The Numbers Of The Variables Used In The Factor Analysis. However, Not All The 26 Variables Will Be Retained. In The Present Research Only The 7 Factors Will Be Extracted By Combining The Relevant Variables. The Eigen Values Are The Variances Of The Factors. The Total Column Contains The Eigenvalue. The First Factor Will Always Account For The Most Variance And Hence Have The Highest Eigen Values. The Next Factor Will Account For As Much Of The Left Over Variance As It Can And The Same Willcontinue Till The Last Factor. The Percentage Of Variance Represents The Percent Of Total Variance Accounted By Each Factor And The Cumulative Percentage Gives The Cumulative Percentage Of Variance Account By The Present And The Preceding Factors. In The Present Research The First 7 Factors Explain 70.503% Of Variance.

The Rotation Sums Of The Squared Loading Represent The Distribution Of The Variance After The Varimax Rotation With Kaiser Normalization. The Varimax Rotation Tries To Maximize The Variance Of Each Of The Factor.

				Total Vari	ance Explained								
- 3		Initial Eigenvalu	ies .	Extractio	n Sums of Squar	ed Loadings	Rotation Sums of Squared Loadings						
Component	Total	% of Variance	Cumulative %	Total	% of variance	Cumulative %	Total	% of Variance	Cumulative %				
1	10.674	41.053	41.053	10.574	41,053	41,053	3.643	14.013	14.013				
2	1.727	5.641	47.694	1.727	5.641	47.694	3.136	12.062	26.075				
3	1.372	5.276	52.970	1.372	5.276	52.970	3.032	11,660	37,736				
4	1.244	4.784	57.754	1.244	4.784	57.754	2.622	10.086	47.821				
5	1.220	4.691	62.445	1.220	4.691	62.445	2.184	8.400	56.221				
6	1.092	4.201	66.647	1.092	4.201	65,647	1.874	7.209	63.430				
7	1.003	3.856	70.503	1.003	3.856	79.503	1.839	7.073	70.503				
8	905	3.482	73.984										
9	869	3.343	77.328										
10	.671	2.581	79.909										
11	626	2.405	82.315										
12	506	1.947	84.252										
13	495	1,908	85,171										
14	460	1.768	87.939										
15	450	1.731	89.670										
16	433	1.664	91.334										
17	384	1.477	92.811										
18	353	1.357	94.168										
19	.287	1,103	95.271										
20	244	.939	96.210										
21	219	.842	97.052										
22	202	.778	97.831										
23	.175	.672	98.503										
24	155	.597	99.101										
25	.127	.489	99.589										
26	107	411	100.000										

Table No. 4: Explanation Of Total Variance

The Above Matrix After Rotation Gives The Correlation Of The Variables With Each Of The Extracted Factors. Usually, Each Of The Variables Is Highly Loaded In One Factor And Less Loaded Towards The Other Factors. To Identify The Variables, Included In Each Factor, The Variable With The Value Maximum In Each Row Is Selected To Be Part Of The Respective Factor. The Values Have Been Highlighted In Each Of The Rows To Group The 26 Variables Into 7 Core Factors.

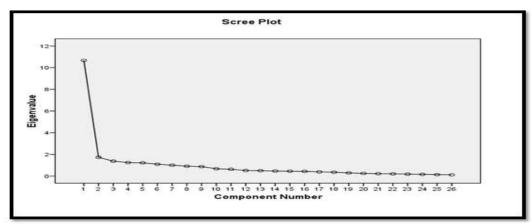


Fig. No. 1: Scree Plot Demonetisation

Factor No.	Factor Name	Eigen Value	% Of Variance	Cumulative %
1	Employment Rate	10.674	14.013	14.013
2	Industry Innovation	1.727	12.062	26.075
3	Customers Buying Behaviour	1.372	11.660	37.736
4	Population Trend	1.244	10.086	47.821
5	Government Policies/ Subsidies	1.220	8.400	56.221
6	Interest Rates	1.092	7.209	63.430
7	Economic Growth	1.003	7.073	70.503

Table No. 5: Key Factors Affected By Demonetisation Through Real Estate Buying Behaviour

From The Above Table No. 4 Of 'Explanation Of Total Variance', Seven Factors Are Extracted On The Basis Of Their Explanation Power. These Factors Are (I) Employment Rate, (Ii) Industry Innovation, (Iii) Customer Buying Behaviour, (Iv) Population Trend, (V) Government Policies/Subsidies, (Vi) Interest Rate And (Vii) Economic Growth. The Factor Named 'Employment Rate', Which Eigen Value Is 10.67, Has Explained 14.01% Of The Variation Of Explained Variable. The 2nd Factor Named 'Industry Innovation', Which Eigen Value Is 1.73, Has Explained 12.06% Of The Variation Of Explained Variable And Cumulatively (1st And 2nd Factors) Explained 26.08% Of The Variation Of The Explained Variable. The 3rd Factor Named 'Consumer Buying Behaviour', Which Eigen Value Is 1.37, Has Explained 11.66% Of The Variation Of Explained Variable And Cumulatively (1st, 2nd And 3rd Factor) Explained 37.34% Variation Of The Explained Variable. The 4th Factor Named 'Population Trend', Which Eigen Value Is 1.24, Has Explained 10.09% Of The Variation Of The Explained Variable And Cumulatively (1st, 2nd, 3rd And 4th) They Have Explained 47.82% Variation Of The Explained Variable. The 5th Factor Named 'Government Policies/Subsidies', Which Eigen Value Is 1.22, Has Explained 8.40% Variation Of The Explained Variable And Cumulatively (1st, 2nd, 3rd, 4th and 5th) They Have Explained 56.22% Variation Of The Explained Variable. The 6th Factor Named 'Interest Rate', Which Eigen Value Is 1.09, Has Explained 7.21% Variation Of The Explained Variable And Cumulatively (1st, 2nd, 3rd, 4th,5th and 6th) They Have Explained 63.43% Variation Of The Explained Variable. The 7th Factor Named 'Economic Growth', Which Eigen Value Is 1, Has Explained 7.07% Variation Of The Explained Variable And Cumulatively (All 7 Factors) They Have Explained 70.50% Variation Of The Explained Variable. Finally, The Analysis Extracted 7 Factors Which Cumulatively Explained 70.50% Variation Of The Explained Variable.

IV. Conclusions

From The Rating Of The Respondents, It Has Been Found That Majority Of The Respondents Considered That Demonetisation Is Having Considerable Impact On Employment Rate. Similarly, Industry

Innovation Has Been Observed As One Of The Core Factors Of Demonetization But Even After Demonetization Respondents Feel That The Business Model Or New Innovation Has A Great Impact In The Real Estate Sector. The Factor 'Customer Buying Behavior' Reflects That Majority Of The Respondents Think That The Behavior Of The Customer Will Be The Same After Demonetization And It Has An Average Impact After Demonetization On The Real Estate Market In India.Population Trend Is Shown As One Of The Core Factor Of Demonetization But The Respondents Neither Agree Nor Disagree That People From Rural Areas Will Not Move To Urban Areas After Demonetization. Population Trend Has An Average Impact After Demonetization.Majority Of The Respondents Feel That 'Government Policies/Subsidies'has An Average Impact After Demonetization. According To Them They Are Not Aware How This Economic Scenario Will Have A Positive Impact Or Negative Impact On The Real Estate Market.Interest Rate On Housing Is Proved To Be Of The Major Factors While Considering Buying A Real Estate Unit. Due To Demonetization,Most Of The Respondents Feel That The Interest Rate On The Home Loan Should Come Down And This Must Have A Positive Impact On The Buyers.

The Factor Analysis Has Identified Seven Factors Which Cumulatively Explained 70.50 % Of The Variation Of The Explained Variable. The Extracted Seven Factors Are I) (I) Employment Rate, (Ii) Industry Innovation, (Iii) Customer Buying Behaviour, (Iv) Population Trend, (V) Government Policies/Subsidies, (Vi) Interest Rate And (Vii) Economic Growth. According To The Respondents' Ratings, The Highly Impacted Factor Is 'Employment Rate', Which Is Also Reflected From The Results Of Factor Analysis.

To Counter This Impact, The Government Has Announced The Policies Which Will Positively Impact To The Real Estate Sectors In India. Some Of Them Are As Follows.

- Infrastructure Status Has Been Accorded To The Affordable Housing Projects.
- Rural Housing Expenditure Increased From Rs. 15,000 Crore To Rs. 23,000 Crore, Under Pradhan Mantriawasyojana (Gramin).
- Over One Crore Houses To Be Built For The Homeless In Rural Areas By 2019.
- The National Housing Bank (NHB) Would Refinance Individual Housing Loans Of About INR20,000 Crore In FY2017-18
- Allocation To Infrastructure Sector Is At A Record High Of INR3.96 Lakh Crore For FY2017–18, An Increase Of Over 38 Per Cent Over The Previous Fiscal Year.
- The Pace Of Construction Of Roads Under The Pradhan Mantri Gram Sadakyojana (PMGSY) Has Accelerated To Reach 133km Per Day In 2016–17, As Against The Average Of 73km During The Period 2011–14.
- Annual Value Of Unsold Stock-In-Trade In The Hands Of Real Estate Developers Held For A Period Beyond One Year From The End Of The Financial Year In Which The Certificate Of Completion Of Construction Is Obtained, Proposed To Be Notionally Taxed As Deemed Let Out Property Under The Head 'Income From House Property'

References

- [1]. Deloitte | Www.Deloitte.Com
- [2]. CBRE And PWC Websites; Www.Cbre.Co.In; Https://Www.Pwc.In
- [3]. Https://Www.Pwc.Com/Sg/En/Real-Estate/Assets/Pwc-Real-Estate-2020-Building-The-Future.Pdf
- [4]. Human Resource And Skills Requirements In The BCRE Sector, National Skill Development Corp., April 2015.
- [5]. Urban Indian Real Estate Promising Opportunities, KPMG In India, August 2016.
- [6]. Real Estate, IBEF, November 2016; And KPMG In India's Analysis, 2016-17.
- [7]. Global Construction 2030, GCP Global And Oxford Economics, November 2015.
- [8]. Construction Industry Can Help India Cope Up With Global Doom And Gloom, Business Standard, 22 January 2016; Http://Www.Business-Standard.Com/Article/News-Cm/Construction-Industry-Can-Help-India-Cope-Up-With-Global-Doomand-Gloom-Study-116012200551_1.Html; Accessed On 31 January 2017.
- [9]. Economic Survey 2016-17, Government Of India, January 2017; And KPMG In India's Analysis, 2016-17.
- [10]. PE Inflows In Real Estate Rise 62% In 2016 On Favourable Policy Moves, ET Realty, 16 January 2017 Http://Realty.Economictimes.Indiatimes.Com/News/Industry/Pe-Inflows-In-Real-Estate-Rise-62-In-2016-On-Favourablepolicy-Moves-By-Govt/56592994, Accessed On 31 January 2017
- [11]. Fact Sheet On Foreign Direct Investment, Department Of Industrial Policy And Promotion, November 2016; And KPMG In India's Analysis, 2016-17.
- [12]. Marketview, India Office, Q4 2016, CBRE, January 2017.
- [13]. Indian Mortgage Finance Market Update For FY2016, ICRA, August 2016.
- [14]. Statistics, Housing Finance Network, Assessed In November 2016.
- [15]. Report Of The Technical Urban Group (TG-12) On Urban Housing Shortage 2012-17, Mohupa, September 2012.
- [16]. India Real Estate, Residential And Office, July-December 2016, Knight Frank India, January 2017.
- [17]. Palate Of The India-Focused Real Estate PE Investor, JLL India, 2016, And KPMG In India's Analysis, 2016-17.
- [18]. Sectoral Deployment Of Bank Credit- June 2016, RBI; KPMG In India Analysis, August 2016.
- [19]. Urban Indian Real Estate Promising Opportunities, KPMG In India, August 2016.
- [20]. Benami Act Provisions To Come Into Force From 1 November, Livemint, 29 October 2016; Http://Www.Livemint.Com/Politics/Kl34fv6i685b7r5u0nkeqk/Benami-Act-Provisions-To-Come-Into-Force-From-1-November.Html, Accessed On 31 January 2017.

- [21]. Dr. C. Ramanigopal (2013), 'Challenges And Opportunities Of Knowledge Management In Real Estate Sector', Indian Journal Of Applied Research, Vol. 3, Issue 5, Pp.446-450.
- [22]. Https://Www.Projectguru.In/Publications/Impact-Demonetisation-Real-Estate-Sector/File:///C:/Users/Dr.%20Jonardan%20Koner/Downloads/Revitalising%20Indian%20Real%20Estate%20GRI%202016.Pdf