Chapter 4 Comparison of the Determinants of Well-Being Between India and Japan: Implications for the Future of the Economy and Society of India



Tadashi Yagi

Abstract Future economic changes in India should be predicted with consideration of not only macroeconomic factors such as consumption, investment, and financial situation, but also social factors such as well-being. In this chapter, we start with the premise that changing social factors interactively affect economic behavior. The overview of happiness suggests that the well-being of the Indian people is relatively low and declining, and that the difference between India and Japan is growing. This implies that economic development did not work to improve the well-being of the Indian people on average. It might be that inequality of well-being in India has been expanding, with the people who have benefited from economic growth enjoying increased well-being and low-income groups having decreased well-being. Against this background, we need to analyze the effects of economic factors on well-being in India more rigorously from various aspects, including social value judgements or religious factors, by using micro data. In this chapter, we discuss how the pursuit of happiness affects the society and economy of India by comparison with those of Japan.

4.1 Introduction

Economic development is surging in India, whereas the economy is already mature in Japan. India's economy is expected to grow at a higher rate relative to the world economy by taking advantage of the huge population of the country. However, future economic changes in India should be predicted with consideration of not only macroeconomic factors such as consumption, investment, financial situation, and trade balances, but also social factors such as social relationships, value judgments, and well-being. In this chapter, we start with the premise that changing social factors interactively affect economic behavior.

T. Yagi (🖂)

Faulty of Economics, Doshisha University, 601 Genbu-choKarasuma-higashi-iru, ImadegawaKyoto 602-8580, Japan e-mail: tyagi@mail.doshisha.ac.jp

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K. Mino and T. Yagi (eds.), *The Cultural Basis of Economic Growth in India*, Creative Economy, https://doi.org/10.1007/978-981-15-9305-5_4

The ultimate criterion for evaluating economic development in India should be the well-being of its people. In this chapter, we use the well-being of the Japanese people as a reference for comparison. According to the 2018 World Happiness Report by Helliwell et al. (2018), the average degree of happiness in Japan is 5.915, which ranks at 54th out of 156 countries, while that in India is 4.190, which ranks at 133rd. The change in happiness in India from 2008–2010 to 2015–2017 was -0.698, while that in Japan was -0.012. This overview of happiness suggests that the well-being of the Indian people is relatively low and declining, and that the difference between India and Japan is growing.

The overview above suggests that the effect of different stages of economic development on well-being is not straightforward. From 2008–2010 to 2015–2017, India achieved dramatic economic development. According to the World Bank, the country's gross domestic product (GDP) was 1,187 billion USD in 2008 and grew to 2,264 billion USD in 2016.¹ This implies that economic development did not work to improve the well-being of the Indian people on average. However, these facts might tell more than one story. It might be that inequality of well-being in India has been expanding, with the people who have benefited from economic growth enjoying increased well-being. Moreover, if economic growth breaks down social norms and distorts social value judgments, it might harm the well-being of people in all income classes.

Against this background, we need to analyze the effects of economic factors on well-being in India more rigorously from various aspects, including social value judgments or religious factors, by using microdata. The difference between India and Japan might have arisen from differences in value judgments and the degree of religiousness of the people in both countries. These value judgments affect economic growth and the stability of society. In this chapter, we examine the details in the relation between the formation of well-being and value judgments, and discuss how the pursuit of happiness affects the society and economy of India by comparison with those of Japan.

This chapter is organized as follows. Section 4.2 discusses the macroeconomic situation in India and some related issues. In Sect. 4.3, we examine the differences in well-being and value judgments between India and Japan by using the World Values Survey (WVS). Section 4.4 presents an analysis of differences in social and economic behavior between India and Japan by examining the determinants of well-being.

¹ See https://tradingeconomics.com/india/gdp as of March 23, 2018.



Fig. 4.1 GDP growth rate (%). Source World Bank Statistics (2018)

4.2 The Macroeconomic Situation in India and Related Issues

4.2.1 The Macroeconomic Situation

The economic growth rate of India is remarkably high, as shown in Fig. 4.1. Since 2010, the growth rate has been between 6 and 10%, and these rates are considerably higher than those in major developed countries such as the United States, Japan, and European countries. In this section, we discuss the economic situation in India in detail, with consideration of various factors. According to World Bank Statistics (2018),² India's gross national product was 450 billion USD in 2000 but increased to 2.5 trillion USD in 2016. In other words, the national income grew fivefold in 16 years. Corresponding to this drastic increase, the labor force participation rate of the working age population (15–64 years) dropped from 61% in 2000 to 56% in 2016. The decline was especially notable in female labor force participation, which dropped from 35.7 to 28.9%. The unemployment rate dropped from 4.31% in 2000 to 3.5% in 2016.

An increase in national income does not necessarily lead to an increase in household consumption expenditure at the same rate as economic growth. The final consumption expenditure of households and non-profit institutions serving households fell from 63.6% in 2000 to 58.9% in 2016 as a percentage of GDP. This implies

² The data were drawn from DataBank of The World Bank, https://databank.worldbank.org/home. aspx.



Fig. 4.2 Saving rate (% GDP). Sources OECD Statistics (2018),³ World Bank Statistics (2018)

that the share of the household sector in the economy decreased through the process of economic growth.

As shown in Fig. 4.2, the saving rate as a percentage of GDP is far higher in India than in major developed countries such as the United States, Japan, and European countries. According to the Reserve Bank of India (2018), the interest rate for a 1- to 3-year deposit was high at 8% to 10% during 2010–2015. In addition, because women face various barriers in economic activities such as getting good jobs in the labor market or borrowing money from financial institutions, there are many incentives for them to save money for living (Coad & Tamvada, 2012).

A high saving rate generally has a positive effect on capital formation. Given that the rate of economic growth depends on the rate of capital growth, the high saving rate is expected to contribute to the high economic growth. However, this is not so straightforward in the case of India. Discussing the failure of growth in India at the start of the 1980s, Varshney (1984) noted that the unequal distribution of income hindered development of the domestic consumer market. Because of this obstacle, private investment did not increase as the saving rate increased. Then, once the maturity level of the consumer market had exceeded a threshold for development, the high saving rate became effective for strongly increasing private investment and contributed to economic growth.

Macroeconomic development is closely related to political factors, as discussed by Asher and Novosad (2017). They showed that constituencies represented by the ruling party have significantly better economic outcomes than those represented by opposition candidates, suggesting the importance of political stability, although it couples with political favoritism, in economic development. Given that political

³ The data of OECD Statistics is drawn from OECD.Stat, https://stats.oecd.org/.

stability depends on the well-being of the people in India, the abovementioned decline in the well-being of the Indian people would be an important factor for predicting future economic development in India.

Social and economic structures or systems affect the relation between economic development and well-being in India in various other ways. For example, Mohanty et al. (2014) show that the state of remittance flows within and among the states of India is very distinctive and strongly affects the well-being of the Indian people in connection with diversity in demographics and socioeconomic development. Moreover, Gius and Subramanian (2015) and Hu and Schlosser (2015) focus on the particular circumstances of women in India, and examine the impact of the social status of women on well-being and economic development. These studies suggest that there are some characteristic features of the state of well-being of India. Accordingly, we next examine the state of well-being in India and the value judgments of the Indian people.

4.2.2 Innovation Policy as a Critical Factor for Future Indian Development

Today, India's innovation is increasing influence in the global economy reflecting the rapid growth of Indian economy by integrating technology, financing, human capital, and administration in the global network. It is true that India's innovation started in the information technology (IT) sector but now the new innovation is arising in a much wider range of industries. Especially, process and incremental innovation in the field of transportation and pharmaceutical industries has been effective in improving their competitiveness in the global market (Krishnan, 2010). As Racherla et al. (2016) pointed, India's overall R&D spending is relatively small in the global standard and is around 0.85% of GDP and ranked below that of China. India's gross R&D expenditure was \$71.48 billion in 2016.⁴

India's current status in the global economy is not excellent in various indicators. The amount of export of goods from India is ranked around 18th or 19th in the world, India falls much further down the list as an exporter of goods – closer to 18th or 19th place. Internet access, cell phone ownership and labor force participation are less than the global average (see Krishnan & Prashantham, 2019). Despite of these facts, India is deemed as one of the fastest growing country in the global economy, because India is expected to boast the world's fifth largest market economy, and the world's second-largest population size of 1.3 billion.

In this section, we summarize the characteristics of India's innovation, and discuss the potential and limitation of India's R&D strategy. The choices India makes today

⁴ The comparable data are as follows: U.S. (gross: \$514 billion; 2.77% of GDP), China (gross: \$396.30 billion; 1.98% of GDP), Japan (gross: \$166.6 billion; 3.39% of GDP), and Germany (gross: \$109.25 billion; 2.92% of GDP). See https://www.theglobalipcenter.com/incomparable-inn ovative-india/.

will determine its competitiveness in the global market in the future. The competitiveness of economies has positive relation with the strength of innovation systems. In this sense, it is necessary to design good IP system to attract and keep more foreign direct investment, foster R&D of domestic companies, and to adopt the latest technologies (Liu & Racherla, 2019).

4.2.2.1 The Characteristics of Indian Innovation

The specific characteristics of Indian innovation pattern (see Krishnan & Prashantham, 2019).

- (1) Frugal (called as Jugaad) innovation based on ingenuity and adaptation. "Jugaad" innovation have been attractive to MNEs because they brought good profits with lower investments (Radjou et al. 2012).
- (2) India-based multinational enterprise (MNE) R&D centers utilizes global innovation efforts of their parent companies. This has been brought scientific technology transfer to India. Through this technology transfer, emerging multinational enterprises (EMNEs) are beginning to develop new original technology (Bhagavatula et al. 2019). MNEs initiates Indian innovation and entrepreneurship ecosystem.
- (3) Indian organizations' innovation efforts focus more on adaptation of technologies, process innovation and organizational innovation to meet the local needs of affordability. This is successful especially in areas those matches global needs (software services, generic pharmaceuticals). Those cases are driven by low cost.
- (4) Companies start their business by inward innovation for serving the local market, but develop to outward innovation for serving the global market. Frugal innovation is mainly used for inward innovation (Krishnan, 2010), whereas outward innovation is growing by the world-class partnership being ideated at Indian R&D centers (Mudambi et al. 2017).

In this section, we evaluate these characteristics from various points of view.

Question 1: Is it possible to shift from Outward – low /medium tech R&D Outward – to high knowledge R&D.

Conditions for these changes

Obstacle for this change is the tight regulation described as "License Permit Raj". For example, imports of raw materials and components are controlled, and the company which has an industrial license has little incentive to innovate (Forbes, 1999). Economic deregulation is required.

Mismatches in Indian market would be serious point, because advanced technology requires high skills and high costs for maintenance, and not affordable for Indian users. Contrary to this obstacle, improving technological capabilities has been one of the objectives of the economic reforms as articulated in the Industry Policy Resolution of 1991 (Krishnan, 2003). Some Indian firms such as Tata Steel made substantial investments to change the technology to become globally competitive.

Question 2: What are the successful industriles in R&D development?

According to Krishnan (2010), pharmaceuticals and transportation industries are evaluated as the most successful industries in R&D development, and the amounts of R&D investment in these industries are close to half of the total industrial R&D investments in India. It is noteworthy that the most R&D-intensive industry in India is the pharmaceutical industry, and especially generic pharmaceutical industry is globally competitive by developing new, low-cost processes for drugs going off patent (NSTMIS, 2013).

It is well known that IT industry in India has a strong competitiveness. Kumar and Puranam (2012) argue, however, that some innovations in the IT industry have been outward oriented. Concerning the transportation vehicle industry, the prominent example is given by the development of the Indica (Tata Motors' entry into the car industry) and the Nano, those were both led by Tata Group Chairman Ratan Tata, and broke through the boundary of Indian innovation represented by the incremental innovation and process improvements, (Krishnan, 2010). Nano revolutionized personal transportation by offering the low price (100,000 Indian rupees which was approximately \$2,000 at the time).

Question 3: The expected benefits and risks of outward innovation.

The important benefit for the MNEs of investing into the innovation of Indian company is to exploit India's cost advantages and to tap into the large Indian talent base. India labor costs make foreign companies to save around 30–40% of the total cost Mitra, 2007. It is important to note that the quality of Indian workers' talent is quite high and they are diligent, and they support global research activities. Basant and Mani (2012) observe a significant increase in the number of MNE R&D centers in India from 157 in 2005 to 1,165 in 2015.

Mudambi (2008) points out that MNE research centers has been working for promoting knowledge spillovers. This brought benefits to local firms by making them develop competencies in high value-added activities. In addition, the Indian R&D centers of MNEs is taking the important roles in developing products that can meet the needs of India and other emerging markets in the world. The point is that the products developed in the Indian R&D centers of MNEs incorporate the latest features, but the approach adopted is a frugal approach. This is crucial for MNEs to expand the market not only in India but also other emerging markets.

The risks of MNE R&D centers in India include the sustainability and competitiveness of the developed products in India or emerging market. Basically, the developed products designed for these markets has less original technology and it is easy for other competitive companies to copy the technology. Thus, it is necessary to have a clear strategy to link R&D center and the emerging market business.

4.2.2.2 Indian Innovation System

In general, we need to build up an innovation system by designing education system initially. Especially, STEM education is deemed as the crucial importance for educating engineers and scientists employed in R&D sectors. In the last 25 years, India has been successful in increasing the number of students enrolled in engineering/technology programs. AISHE (2016) reports that 4.2 million students were enrolled in engineering/technology programs in 2014–15.

The most serious problem for this STEM education is the mismatches in labor market. The low employability of the graduates of these engineering colleges is serious, and it is reported that only 18% of engineers graduating are employable in the software services industry according to the National Employability Report-Engineers (Aspiring Minds, 2016). This reflects the polarization of the quality of students in Indian STEM education program. The high-end program by the top university such as Indian Institute of Technology are evaluated highly in the world standard, while the quality of education in a mass of institutions is less evaluated.

In India, the government's role in R&D investment has been increasing, although the size of investment compared to the total economy size is still small. The main target of investment by government funding has been the networks of government-owned and government-operated R&D laboratories (Krishnan, 2010). Basant and Mani (2012) point that about 63% of R&D spending in India was borne by the government spending. This is a quite large portion. In case of the U.S.A., this portion has a declining trend and less than 30% as of 2017 (National Science Foundation, 2019).

It is interesting that the government spending has been directed to support micro, small, and medium enterprises, and used to promote the R&D investment of the firms less than 5 years old by the first Start-up Policy 2016 (Krishnan, et al., 2019). Under this policy, various measures such as funding and tax incentives, supporting industry-academia collaboration, supporting the creation of tinkering laboratories in schools and the formation of incubators in educational institutions are programed.

4.2.2.3 Future Prospect of Indian Innovation

IP (Intellectual Property) system is crucial for promoting innovation in India. IP tools include patents, trademarks, copyrights, and trade secrets, and those are the key factors for guaranteeing return from R&D investment. The current India's IP system is not sufficient for providing both the domestic and foreign companies with incentives for investing much money to R&D.⁵ To increase the reliability of India's IP system, it is necessary to decrease exceptions applied to IP legal system. Limiting the patentability of software innovations, or facilitating access to pirated movies and music online are the examples of exceptions.

⁵ See https://www.theglobalipcenter.com/u-s-and-indian-business-organizations-launch-dialogueon-ip-collaboration/ as of June 2020.

To solve this problem, the Federation of Indian Chambers of Commerce and Industry (FICCI) started to collaborate with the U.S. Chamber of Commerce's Global Innovation Policy Center (GIPC) at the beginning of 2019.⁶ The purpose of this collaboration is to promote IP-led India's innovation. Through this collaboration, the system of patent filing, regulatory landscape, copyright and infringement, technology transfer, and enforcement has been elaborating. The main incentive for the U.S. is the expected return from the development of India's market in which many MNEs from the U.S. have been investing.

4.3 Well-Being of the Indian People

4.3.1 Overview of Indian Society

In this section, we give an overview of Indian society (see Okamitsu & Yamashita, 2016). Two key characteristics of Indian society are the social stratification and numerous social restrictions that arose from the Indian caste system. Despite antidiscrimination laws, various forms of discrimination still exist in Indian society. Family values are deemed to be quite important in the country, and multi-generational patriarchal joint families have been the norm in India. In particular, marriage is crucial for attaining social recognition. The divorce rate is extremely low. The custom of paying a dowry remains widespread, although this custom has been outlawed and causes various kinds of tragedies.

Religious beliefs and practices are diverse in India, and all religions are treated equally by the state. India is the birthplace of Hinduism and home to around 90% of the world's Hindu population. According to the 2011 Indian census, 79.8% of the population of India practice Hinduism, while 14.2% practice Islam. Christianity is the third-largest religion. The percentage of Buddhists in the population is very small, although India is also the birthplace of Buddhism.

4.3.2 Data Used in the Analysis: WVS

Here, we discuss the well-being of the Indian people in order to capture their lifestyle and behavior by using the www.worldvaluessurvey.org (WVS). Using a common questionnaire, this survey is conducted by a global network of social scientists studying changing values and their impact on social and political life. The survey started in 1981 and consists of nationally representative surveys conducted in almost 100 countries containing almost 90% of the world's population. The number of respondents is almost 400,000.

⁶ https://www.theglobalipcenter.com/india-climbs-eight-places-in-global-ip-rankings/ as of June 2020.

The minimum population sample size of a country is 1,200. Samples must be representative of all people aged 18 years or older. Data collection in the WVS is done primarily through face-to-face interviews at the respondents' homes/places of residence. Respondents' answers are recorded on questionnaire sheets or by computer-assisted personal interviewing.⁷ Here, we focus on the Schwartz's value judgment questionnaire.

4.3.3 Changes in the Well-Being of India: Comparative Analysis

According to the WVS data, the happiness felt by people in India is relatively higher than that felt by people in Europe, the United States, Japan, and other parts of Asia. More importantly, the level of happiness has been constant for more than three decades in India but has decreased after 1998 in all other countries and regions. In particular, a sharp decline in happiness has been observed in Japan. In evaluating the drastic economic growth in India, the meaning of the constant level of happiness is considered from various aspects.

Firstly, the decrease in happiness in most countries and regions is attributed to the development of the global economy. Globalization has deepened, especially after the start of the twenty-first century, and has had various negative impacts on economies and societies around the world. Global capital such as major tech companies (Amazon, for instance) has gained competitiveness by expanding the global market and realizing economies of scale. Meanwhile, many local companies have been losing their positions in the local market. In other words, income inequality has been expanding between competitive economic agents and less competitive economic agents due to the development of the global economy.

As is shown in Fig. 4.3, the fact the happiness of the Indian people has remained constant means that Indian companies are, in relative terms, enjoying the benefits of globalization. However, this does not imply that all the people in India are doing so. It is expected that some portion of the Indian people have lost out under globalization while others are certainly enjoying the economic growth achieved under globalization. The percentage of people who enjoy the benefits of globalization seems to be larger in India than in other countries and regions.

4.3.4 Changes in the Value Judgments of Indian People

In this section, we focus on the value judgments in India. As discussed by Sagiv et al. (2017), values are defined as broad desirable goals that motivate people's actions and serve as guiding principles in their lives. Thus, changes in values cause changes in

⁷ See http://www.worldvaluessurvey.org/wvs.jsp as of February 20, 2018.



Fig. 4.3 Feeling of happiness. Source 2014 World Values Survey

people's preferences and behavior. This is why we pay attention to value judgments in predicting changes in human behavior accompanying economic development.

~1998

•Total — 1999~

Before examining the data, let us discuss the process of value formation. Sagiv et al. (2017) state that values are formed through a combination of genetic heritage and the impact of exposure to multiple social environments, such as family, the education system, community, and society at large. The dramatic economic development in India has possibly altered multiple social environments and in turn may have changed the values of the Indian people.

The characteristics of Indian value judgments are shown in Fig. 4.4a. Over the long term, religion and work were considered to be the most important and leisure time was considered the least important. Examination of Fig. 4.5b reveals changes in value judgment over a period of about 30 years in India. The importance of religion has been constant, but the importance of work has declined sharply. On the other hand, the importance of leisure time and politics has increased sharply. The importance of work has dropped to the global average, but the importance of leisure time remains the lowest in the world, reflecting the upward shift in the importance of leisure time globally.

The implication of changes in value judgments for economic growth includes the following main two factors. First, the decrease in the importance of work since 2010 suggests that the quality of work has possibly declined in the development process. There are many small companies that use high-quality handcrafting techniques. Before the economy started to develop, many craftspeople worked not only



Fig. 4.4 a Importance in life: 1993–2010 (whole period: Ascending order). b Differences in importance between 1993 and 2010. c Importance in life (2010–2013). *Source* 2014 World Values Survey



Fig. 4.5 Schwarz value judgments: comparison by country or region (ascending order). *Source* 2014 World Values Survey

India

Others

-----Europe

Asia

Japan

to obtain money, but also to achieve a feeling of responsibility for work and selffulfillment. This is a source of the quality of products. The changes in value judgment suggest that the importance of work has declined and the need for money has increased to enjoy leisure time.

The increase in the importance of leisure time is important for promoting development of the consumer market because most consumption and leisure are complementary. Viewed another way, it can be interpreted that the importance of leisure time has increased because of an increase in consumption due to rising income. These interpretations suggest that the importance of leisure time will increase and the importance of work will decrease as the income level rises in India.

It is worth noting that the importance of happiness and religion has remained almost constant over the whole observation period despite the economic growth in India (Fig. 4.4b). This implies that the happiness of people in India does not depend on income level. As shown in Fig. 4.5c, the importance of religion is relatively high in India compared with the rest of the world, suggesting that the happiness felt by the Indian people might arise from religious factors.

An interesting point is that the importance of politics increased strongly after 2010. This change was the largest in the world (Fig. 4.4b). One possible interpretation is that the impact of public policy on life has increased as the size of the economy expanded. As the economy has expanded, the income gap between the poor and the rich has widened. Income redistribution, for example, has gained more importance as a policy measure, and this leads to an increase of the importance of politics. In addition, the needs for public infrastructure such as transportation and road systems has increased due to economic growth. This also increases the importance of politics reflecting individuals' needs.

Finally, we need to carefully discuss the decrease in importance of family after 2010 (Fig. 4.4c); the income level has increased, and it has become possible for people to secure their life not through family cooperation but through savings. In addition, differences in the interests of family members might have expanded as income level increased, and the time spent together with the family decreased as the variety of leisure opportunities increased. These might have led to the decrease in the importance of family.

4.3.5 Schwarz Value Judgments

In this subsection, we compare value judgments between India and Japan by using the Schwartz theory of basic values in preparation for the analysis in the next section. Schwartz (2015) created cross-cultural indices, and the WVS questionnaires are based on these indices.

As is shown in Fig. 4.5, the values for all items are higher for Japan than for India. The difference between India and Japan is the largest for the item "It is important for this person to be rich." The value for India is 3, while the value for Japan is 1.07. In India, around 21.2% of the population still lives in extreme poverty with income less than 1.90 USD per day (see The World Bank Data Bank).⁸ On the other hand, the proportion of the Japanese population living in such poverty was 0.3% in 2008. This suggests that the likelihood of being poor is relatively higher in India, and this led people in India to place greater importance on being rich.

The second largest difference is seen for the item on the importance of "adventure and taking risk." In some sense, these two responses are consistent because people think that it is necessary to take risk or undergo adventure to be rich. Indians think that it is worthwhile to take risk because being rich is important for them.

The third big difference between India and Japan is observed in the importance of "being very successful". In connection to the two previous questions, Japanese do not pursue success in life, because they do not think that being rich is important.

The fourth largest difference is in the importance of "tradition". This poses a kind of paradox because adventure and tradition are largely opposing values. Greater importance was placed on tradition by Indians than by Japanese. The importance of tradition to a person is related to his or her degree of religiousness. Each religion has a specific logic on life and living. For example, a Hindu widow is expected to remove her trinkets and wear a white sari, and is excluded from Hindu ceremonies (see Okamitsu & Yamashita, 2016, p. 229). This kind of custom or tradition is rooted in a religious belief that a widow is a symbol of unhappiness. The dichotomy between "luckiness" and "unluckiness" is similar to the dichotomy between "pure" and "impure", and these dichotomies are regarded as a basis of Hindu culture.

⁸ See https://data.worldbank.org/indicator/SI.POV.DDAY?end=2013&locations=1W-IN-JP& start=1981&view=chart, as of February 20, 2018.

Placing strong importance on tradition and custom can be expected to have various kinds of impacts on happiness. In the case of a Hindu widow, she would feel negative emotions for being regarded as a symbol of unluckiness. The question then arises as to whether placing strong importance on custom or tradition has some positive impact on happiness. From ancient times, human society has been faced with various kinds of disasters and tragedies that are beyond our control. Custom and tradition have been relied on as means of avoiding disaster and tragedy through religious teachings or myth. This suggest that the degree of importance of custom and tradition to a person depends on the strength of the belief that religion contributes to safety or luck in life.

The smallest difference between India and Japan is found in the importance of "looking after the environment". The second smallest difference is in the importance of "living in secure surroundings".

4.3.6 Freedom of Choice and Control

Figure 4.6 shows changes in degree of freedom of choice and control before and after 2010. A prominent change can be seen in India. India and Japan are ranked lowest and second-lowest, respectively, in degree of freedom of choice and control. Before 2010, India scored higher than Japan in this measure, but their positions reversed after 2010. The degree of freedom and choice dropped most sharply in India after 2010. This finding holds various implications regarding changes in Indian society.



Fig. 4.6 Belief that there is freedom of choice and control. Source 2014 World Values Survey

India has a traditional caste system. This system has worked to reduce the degree of choice and control, especially in freedom of occupational choice. One might expect that as the economy develops, the impact of the caste system would weaken because of need for higher mobility of human resources. The finding shown in Fig. 4.6 is contrary to this expectation. This can be interpreted as follows. As the economy develops, economic organizations become larger, and relationships among economic agents deepen. In addition, the advancement of the monetary economy in India has decreased the degree of freedom of choice and control because people came to feel that the monetary limitations decreased the degree of freedom of choice.

The findings in Fig. 4.6 have various implications for economic development in India. The caste system has various influences on the Indian economy and unites people within the same caste, forming strong social networks. These social networks support various kinds of economic activities such as job referral and mutual insurance. Munshi (2016) focuses on caste networks and argues that caste networks have been active not only in rural areas but also in cities. Particular caste groups have gained some advantages in business and overseas trade, and some new business communities have moved into industry. Figure 4.6 implies that as the economy developed, the importance of caste communities increased because they enhanced economic competitiveness, resulting in exclusive caste communities.

4.3.7 Changes in Incentives for Work and Feelings of Fairness

Incentives for work are crucial for economic development. Incentives influence the quality of work and resulting quality of goods and services. Figure 4.7 show changes in incentives for work as assessed by the question of whether hard work brings success. Worldwide, the decline in incentives for work was largest in India, which had the strongest incentives for work before 2010 and the weakest incentives after. This sharp decline suggests the worsening feeling of fairness in India. Incentives for work are influenced by the sense of achievement or reward from hard work. It can be inferred that India's drastic economic growth has had a detrimental effect on people's sense of fairness as a result of the widening gap between the rich and the poor, and the experiences of seeing some people become rich through good fortune and others become impoverished through bad luck. This has weakened the belief that hard work leads to success.

If people believe that immoral behavior brings good fortune, then the quality of society becomes worse, which would lower economic competitiveness in the world market. Figure 4.7 suggests risks that Indian society faces.

Changes in the sense of fairness can be seen from another aspect in Fig. 4.8. Before 2010, the Indian people viewed competition relatively favorably compared with other countries and regions. After 2010, however, the Indian people tended to view competition as more harmful compared with the rest of the world. The gap



Fig. 4.7 Belief that hard work brings success (10 signifies the belief that "hard work generally brings success"). *Source* 2014 World Values Survey



Fig. 4.8 Belief that competition is harmful (5 signifies the belief that competition is harmful). *Source* 2014 World Values Survey

between before and after 2010 is quite prominent in India, and it is worth considering this finding carefully. Figure 4.8 suggests that competition in India is regarded as being unfair. This sense of unfairness seems to be specific to India given the prominent change relative to that in other countries and regions.

The caste system possibly worked to worsen the sense of fairness during the process of economic development. The caste system could serve to strengthen the



Fig. 4.9 Comparision of degree of religiousness between India and Japan. Source 2014 World Values Survey

system of exclusive networks within the castes. Higher castes might have advantageous opportunities in business, and some barriers may exist for lower castes. These differences might have grown larger over the course of economic development.

4.4 Differences in Social and Economic Behavior Between India and Japan

4.4.1 Differences in the Degree of Religiousness Between India and Japan

According to the 2011 Indian Census, the population distribution by religion is as follows: Hindu, 79.8%; Islam, 14.2%; Christian, 2.3%; Sikh, 1.7%; Buddhist, 0.7%; and Jain, 0.4%.⁹ The crucial difference between India and Japan is the portion of people who do not believe any religion. It is reported that 51.8% of Japanese believe in no religion, while less than 1% of Indians have no religious belief. The dominant religion in Japan is Buddhism at 34.9%, and Christians account for 2.3%.¹⁰

⁹ See http://www.censusindia.gov.in/2011census/Religion_PCA.html, as of March 2018.

¹⁰ See http://www2.ttcn.ne.jp/honkawa/9460.html, as of March 2018.

Nevertheless, Fig. 4.9 shows that the differences in the meaning of religion between India and Japan are not so sharp. To understand this point, it should be noted that many Japanese believe in Shintoism, but this is regarded not as a religion but as a convention because there is no sacred text or teachings in Shintoism. A large proportion of people in Japan pray at Shinto shrines or Buddhist temples for their wishes to be fulfilled—for example, praying for the safety of their family and good health. Moreover, most Japanese have attended various Buddhist ceremonies such as funeral services even though they are not devout followers of Buddhism. This implies that people in Japan recognize the existence of gods unconsciously.

The most important point is that the average value of the degree of religiousness in India is less than 2, which is not very different from the value in Japan. Frequency of praying is the item with the largest difference between India and Japan. A possible interpretation is that Japanese pray on the occasion of certain ceremonies or services, but Indians pray and attend services in daily life.

It is important to note that both Indians and Japanese recognize the importance of gods. The average value in India is around 6, and that in Japan is around 5. For Hindu people, gods include Brahma the Creator, Shiva the Destroyer, Vishnu the Preserver, and Shakti (also called as Devi). For Islam, Allah is the one and only God, an absolute, all-powerful, and all-knowing creator and ruler of the universe. For Buddhists, the Four Truths, which express the basic orientation of Buddhism, are quite important, and there are many gods that have different roles. The fact that most of the people regard God or gods as important in life despite the large differences in their conceptions suggests that people have various kinds of needs that are addressed by these beliefs.

It is interesting that both Indian and Japanese people place greater importance on "doing good for other people" than "following religious norms" and on "making sense of life in this world" than "making sense of life after death". These imply that religion is regarded as a tool for improving life in this world and religion is not the objective of life in either India or Japan.

4.4.2 Differences in Determinants of Well-Being Between India and Japan

In this section, we discuss the determinants of well-being in India and Japan by using microdata compiled through surveys that we conducted in happiness studies. The surveys are summarized below and key details are outlined in Table 4.1. We used microdata collected from a nationwide Internet survey in each country. The survey in Japan was designed and implemented during 2012–2013 for a research project that investigated the socio-economic determinants of subjective well-being.¹¹ The surveys captured ample information about individuals' subjective assessments of their well-being, personal traits, demographics, socio-economic status, and perceived

¹¹ The survey was funded by JSPS KAKENHI Kiban A no. 22243028.

	India	Japan
A. Title of survey	Survey of the state of living in India (Survey of Well-being in India)	Survey of the living environment in the region and the sense of happiness
B. Time period of survey	Nov. 6, 2017–Nov. 17, 2017	Oct. 1, 2013–Oct. 31, 2013
C. Survey method	The survey was organized by NTT Com Research by using the Internet. All samples were collected via Internet panels with multiple sources. Each respondent was verified as being unique via IP address	
D. Sample controls	Sampling for the Japanese dataset was controlled so that the age distribution and income distribution of the survey were close to the real distributions	
E. Sample size	4,046	4,927

 Table 4.1
 Outline of the surveys

neighborhood characteristics, all of which are useful for examining the relationship between working conditions and happiness. In the case of Japan, to ensure that the sample was representative of the actual population, we constructed targeted proportions of 15 population groups, which corresponded to a matrix of five age groups (20, 30, 40, 50, and 60 s) and three household income classes (3 million yen or less, 3–6 million yen, and 6 million yen or more) in advance and collected surveys until we obtained the numerical targets.

The survey in India was designed and implemented during 2017 for a research project that investigated the socio-economic determinants of subjective well-being in India.¹²

Figure 4.10a and b show the differences in the relation between overall well-being and educational attainment between India and Japan. A contrast was noted between India and Japan in that well-being was not strongly associated with educational attainment in India, but had a monotonically increasing relationship with educational attainment in Japan. This suggests that job matching in India is not bad in the sense that workers with lower educational attainment have good opportunities to utilize their human capital effectively.

Figure 4.11a and b show a sharper contrast between India and Japan. In India, degree of hope is relatively higher for the people with lower educational attainment. On the other hand, degree of hope increases monotonically with increasing educational attainment in Japan.

Hope is an important source of motivation for work and good deeds. Degree of hope reflects the possibility of achieving one's hopes. These figures suggest that it is possible for people in India to achieve their hopes independently from their educational background. However, this does not mean that the types of hopes are similar between India and Japan. The caste system in India limits people's freedom to choose their occupation, whereas there is almost complete freedom to choose one's

¹² The survey was funded by JSPS KAKENHI Kiban B no. 16KT0089.



4 Comparison of the Determinants of Well-Being Between India and Japan...

Fig. 4.10 a Overall well-being in India. b Overall well-being in Japan

occupation in Japan, both legally and traditionally. For this reason, it is inferred that the variety of hopes in India is larger than that in Japan.

The possibility of achieving one's hopes is expected to be related to the quality of human relationships. Figure 4.12a and b show a comparison of differences in degree of trust in others by city size between India and Japan. Two distinct differences can be seen. First, the degree of trust in others is higher in India than in Japan. Second, people trust others more in large cities than in small towns in India, whereas the degree of trust in others is independent from city size in Japan. This suggests that communities in urban areas of India are working well.



Fig. 4.11 a Hope by educational attainment in India. b Hope by educational attainment in Japan

It is evident that human relationships within communities are stronger in India than in Japan, as shown in Fig. 4.13a and b. In India, more than 20% reported having cooperative relationships in daily life within their community, and this ratio was larger for people living in urban areas. Only a small percentage had no social relationships in their community in India. On the other hand, only a small percentage had cooperative relationships in daily living within their community in Japan, and the ratio decreased with increasing city size. These figures show a sharp contrast in social relationships in communities between India and Japan.



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Fig. 4.12 a Degree of trust in others in India. b Degree of trust in others in Japan

Khan et al. (2014) explored the relation between social identification in a community and well-being in India. Social identification may provide individuals with meaning from living in their community and social connection with others. Their study shows that social identification in India enables individuals to access social support and escape from stressful situations. Our results here are consistent with those of Khan et al. (2014).



Large cities (23 wards of Tokyo, ordinance-designated cities, cities with more than 1 million people)
 Central city (prefectural office location less than 1 million people)

Fig. 4.13 a Degree of socialization in communities in India. b Degree of socialization in communities in Japan

Other cities
 Town / Village

Figure 4.14a and b show the differences in pro-social behavior such as volunteer activities. In India, around 15% of people participate in volunteer activities, while less than 5% do so in Japan. Only around 15–30% of people do not do volunteer activities in India, while around 70% of people do not do any volunteer activities in Japan.



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Fig. 4.14 a Percentage of people who participate in volunteer activities in India. b Percentage of people who participate in volunteer activities in Japan

In this section, we examined differences in social and economic behavior between India and Japan by focusing on religious behavior and social relationships in communities. There are several reasons for focusing on these two factors. The main reason is that these factors affect well-being in various ways and possibly instill in people some non-materialistic values. If non-materialistic values are considered important for generating well-being, economic development would not be so important for the people. Indeed, economic development may hurt well-being in cases where it adversely affects non-materialistic values. The findings in this section suggest that social interaction and social capital are strong in India. These are considered as the important source of a high degree of well-being in India.

4.4.3 Differences in Determinants of Well-Being Between India and Japan

In this subsection, we examine the determinants of well-being by using a multivariate regression model and compare them between India and Japan. Figure 4.15a and b show the standardized coefficients of the statistically significant determinants of well-being. Standardized coefficients represent the strength of the effect of the explanatory variables on the explained variable, which is well-being in this empirical model. From Fig. 4.15a, it is seen that "physical working conditions", "wages", and "job security" are the strongest factors. How workers are treated is an important factor for well-being in India. In contrast to India, people in Japan are more sensitive to the possibility of designing their own job and utilizing their own skills and knowledge.

Concerning social relationships in communities, people in India regard these factors as important for well-being. "Strength of social relationships in the community", "number of relatives in the community", and "degree of community activities" strongly affect well-being. In addition, the degree of being able to rely on family and relatives also has a positive effect on well-being.

In Japan, no social relationship factors were found to affect well-being, whereas degree of trust in others was found to affect it strongly. The most important factors affecting well-being in Japan were personal and material factors such as satisfaction with leisure, income, and wealth.

It worth noting that "religious activities" significantly contributed to enhancing well-being in India, while this factor was not significant in Japan. In addition, community environment contributed to enhancing well-being in India but not in Japan. These results are consistent with those reported by Zorondo-Rodríguez et al. (2016), who found positive associations between economic and natural capital and subjective well-being.

These results suggest that Indian people feel happiness when they appreciate human relationships in society and when they are treated properly in the workplace. On the other hand, Japanese people tend to feel happiness when they are satisfied with leisure, income, and wealth.



Fig. 4.15 a Standardized coefficients of statistically significant determinants of well-being in India. b Standardized coefficients of statistically significant determinants of well-being in Japan

4.5 Concluding Remarks

Long-run macroeconomic performance is affected by various factors such as consumption, savings, and labor market structure, and the value judgments of individuals affect behaviors related to consumption, savings, and labor supply. In this way, the value judgments of individuals affect long-run macroeconomic performance. In this section, we discussed the relation between value judgments and economic behaviors.

The most important component of demand at the macroeconomic level is consumption. Determinants of consumption includes income, savings for the future, savings for marriage, religious expenditures, expenditures for communities, education, and leisure preferences. Income is determined by labor supply behavior, which is affected by value judgments on work, competition, and trust. Saving behavior is affected by value judgments such as preference for mutual aid within one's family or community.

Determinants of trust are human relations within the workplace, community, and family. Trust as a means of security affects the efficiency of transactions in the economy. Social rules, conventions, and norms affect trust formation, but the personal and social investment for trust formation incurs some costs. Costs include restrictions on creative activities that usually come from unconventional ways of thinking.

The analysis in this chapter provides some evidence for predicting how economic development in India will bring about the changes in the social structure of the country. As suggested by Gautam and Singh (2010), Indian companies have not adopted a positive stance toward corporate social responsibility and only a few companies have a structured and planned approach. As the economy develops, new social issues will arise from the changes in social structure. In this regard, companies will be expected to play a role in solving these social issues. In conclusion, the way that Indian society changes affects not only macroeconomic performance but also well-being. We need to respond to social changes appropriately by analyzing the essential changes in the economy and society.

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