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RESEARCH NOTES

ADOPTION OF JUST-IN-TIME MANUFACTURING PROCESS: Remedy for Solving Income Inequalities

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Abstract

The Just-in-Time manufacturing philosophy appears to be the most effective remedy to reduce income disparities in countries where majority of people are young, energetic and looking for job to earn respectable living in the society. JIT manufacturing system is designed to split production process among smaller units, capable of delivering a well-defined component strictly in accordance with the agreed time schedule to achieve best possible quality output at a minimum cost.
The study is to establish a linkage of dignified and respectful partnership between resourceful investors (Industry) and resource-less (Job-less) population, competent and skillful, but looking for opportunities to contribute at highly competitive costs to prove their worth.

Keywords: Partnership, Skillful, Minimum Cost, Resource-Less, Split, Dignified Linkage.

I. Introduction

Equality is an important value in human societies. Income inequality is the single biggest threat to social stability around the world. No matter, whether it is in the United States, the European periphery, developing world, it sounds serious. As a consequence, we find a lot of evidence indicating the fact that more and more poor people are falling below the income poverty line, while rich as a percentage of the total population is on the increase. We are convinced that the persistent growth of innovative technology and widely spread globalization in the world has surprisingly promoted rapid gains in favour of rich and the powerful members of the society. Recently (January 2018) Guardian reported that Inequality gap widens as 42 people hold the same wealth as 3.7 billion poorest. This trend revealed a tremendous set back to the poorest communities in the world and suggesting the failure of the programs, which are being run to elevate poverty from the society.

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We appreciate without any reservation that irrespective of culture, religion and ideology considerations, equality must prevail in all circumstances and fairness must be seen to make life comfortable for each and every individual in the society.

The majority of the poverty elevation programs are designed to provide financial assistance in various forms. In fact, the most commonly discussed remedies to income inequality rely upon government assistance in various forms such as subsidized food, transport, education and medicine. Even the official development assistance provided by foreign countries to relatively poor countries are focusing on supporting the rural world but without much betterment of the poor. All these efforts have not been effective in bringing about any significant change in the living standards of the poor communities. To adopt some more fruitful and self-supporting ideology to bring radical change in the approach to elevate poverty, we must look for non-distributive techniques to address income inequality. The slogan such as 'Reward Work, Not Wealth' seems to be more appropriate to bring change in the designs for elevating inequality.

In this research study, the idea is to create a self-supporting program of elevating poverty, where everyone can get ahead and become a resourceful person if given the opportunity to work and earn enough to maximize own welfare. In the year 2016, the distribution of population between various age groups indicated that 65 per cent of the people in the world population fall in the age group between 15 years and 64 years. A very sizable section of society needs to be educated and trained in the best interest of human welfare. In this context, our immediate concern is to address income inequality in countries where the majority of people are unemployed and cannot use their competence to live comfortably in society. We can help such societies by promoting new ventures and dynamism. In a way, this research paper is to create a new dimension to share already established and successfully run business concerns with the needy and skilful workers by adopting Just-in-Time concept in the production of various components at costs and quality for selling in the highly competitive markets.

II. Literature Review

In the 1950s development, economics emerged as a sub-discipline of economics, and its primary focus was economic growth solely to make the best use of available resources for achieving maximum prosperity in an economy. In fact, inequality was simply a matter of secondary concern. Development Economists were convinced that in the economic growth process, inequality was more or less inevitable. In the early 1970s, the existence of high inequality within many developing countries was realized along with persistent widespread poverty. However, without any change in the thinking and the mainstream view in development, economics was still that high rising inequality in poor countries was a far less of any significance than assuring high growth, which was key to poverty reduction. Paul Rosenstein-Rodan was of the view that there is likely to be a trickle-down effect when the growth is allowed to reach its optimum level. Thus any policy effort to reduce inequality is likely to impede growth and poverty reduction.

Similar situations prevailing in many other countries in the world seem to suggest that all that was being advocated by the development economists was not in the best interest of the poor people. We realize that income inequality is a reflection of unfairness to a particular segment of society. It is a fast-growing threat to economic wellbeing and social stability of people all over the world. Knowingly, it is the outcome of a few, very powerful authoritative decision makers which, leads to exploitation of human resources and is likely to end up causing serious implications for the economic and social welfare of the society. According to United Nations description of social inequality, it is the outcome of six explicit categories, viz.,

1. Inequality in the distribution of income
2. Inequality in the distribution of assets
3. Inequality in the distribution of employment
4. Inequality in the access of knowledge
5. Political inequality
6. Inequality on access to medical services, social security, and safety

Considering the interrelationship of these inequalities, Income is the primary cause of reflecting social inequality for promoting all other inequalities. Kenneth Rogoff, an economist in his article 'Inequality: In the long run we are all equally dead', seems to convey that the relentless march of technology and globalization played out hugely in favour of high skilled labour, helping to fuel record-high levels of income and wealth inequality around the world.

Income inequality and wealth distribution are seemingly two different concepts, where income inequality focuses entirely on the income side of the equation. In contrast, wealth distribution concentrates at how the ownership of assets in society is shared among its community. In fact, both measures reflect the economic differential within a country's richest (wealthiest) and poorest (resource deficient) members of the society. Former President Obama and former Secretary of labour, Robert Reich, both recognized this being a growing concern for the society's economic wellbeing.

Paul Krugman, while discussing chronic inequality of income and wealth, found education sector to blame for not generating good job opportunities and dismal productivity in the economy. Similarly, Larry Summers when participating in an event sponsored by the Brookings Institute's Hamilton Project, showing his concern remarked that the economy is not producing sufficient jobs to overcome the stagnation and deterioration in incomes of the large proportion of the population. Krugman and Summers have taken the position to base income and wealth inequality as the result of deep structural flaws in the economic system. They are of the opinion that these flaws are a function of market power and must be identified so that the necessary steps can be adopted for their remedial solution.

The economist John Maynard Keynes derived technological unemployment as 'New Disease'. He was of the opinion that the economy would not be able to create new jobs faster than jobs were lost to automation. This he figured out in the 1930s, during the Great Depression. Recently we found that a number of studies pointed out a lack of opportunities for labour to get fruitful employment. According to Kathleen Madigan, since the recession ended in 2009, real spending on equipment and software has soared by 26 per cent while payrolls have remained essentially flat. While the U.S. Commerce Department, in their recently updated compilation, found corporate profits as a share of GDP at 50-year highs. Where, compensation to labour in all forms, including wages and benefits, remained at a 50-year low.

Stiglitz (1998), Hurrell and Woods (2000) are of the view that globalization is the key factor which leads to an increase in inequality. They seem to suggest that trade increases differentials in returns to education, while globalization marginalizes some groups of people or geographic regions, and liberalization is not complemented by the development of adequate institutions and governance. This seems to reflect evidence from China and some transitional economies that are experiencing a significant increase in inequality after there opening up to the outside world [Mazur (2000), Birdsall (1999)]. According to research conducted by the World Bank (2009), the problem of income inequalities is also related to the lack of equal opportunities to receive education by the people in general.

Sarinivasan and Bhagwati (1999), and Davidson (1993) are of the view that globalization helps to reduce inequality. A point of view, which seems to be supported by a number of countries where inequality declined when they liberalized their economies [Wade (2000)]. However, the proponents of globalization while examining the expansion of trade in goods and services between countries are firm in pointing out that global integration reduces inequality on account of the fact that average income within countries increases consistently. This very much reflects the thinking of David Ricardo, a 19th-century British economist, who introduced the concept of comparative advantage between countries. Ricardo advocated that countries should concentrate, solely those industries in which they are more competitive relative to other countries, thus allowing maximum possible returns to investment.

Globalization is seen to create a class structure amongst nations that perpetuate and enhances social inequality for nations that depend on developed nations for trade, financial assistance, political stability, and protections. The current wave of globalization is looked at critically by Eric Maskin of Harvard University, saying that globalization is increasing inequality. To him by globalization, while average income has been rising as a result of more trade and global production, so has inequality within countries. At the same time, Maskin takes the position to advocate that ‘the right thing to do is not to try to stop globalization – that would be foolish – because globalization certainly does increase average income in all countries’. However, a significant disparity throughout all regions of the world persists, largely because developing countries have not been allowed to catch up. A study shows that Mexico, being a developing country holds membership in the growth of the North America Free Trade Agreement (NAFTA) is seen left behind in economic struggle (Ferrier)

China is one of the fastest-growing economies, with quarterly GDP growth rates close to 9.5 per cent for the past two decades. China still faces a serious problem of Income disparity between different income groups clearly defined as rural and urban income inequality. The IMF indicates that China, with a given growth pattern, will be widening the rural-urban income gap. Hu Angang, a prominent researcher in China, is of the view that further increases in regional disparities may lead to China’s dissolution, like in the former Yugoslavia. Jim Yong Kim, the World Bank president, found China’s new bank (Asian Infrastructure Investment Bank) AIIB likely means to fight poverty. So far more than 50 countries including Britain, France, and Germany have rushed to join China’s initiative, a \$50billion, multilateral infrastructure bank that will provide project loans to countries across Asia and plans to begin operations at the end of the year. Jim Yong Kim, in a speech, confirmed that the AIIB and the New Development Bank, established by the Brics (Brazil, Russia, India, China and South Africa) countries, have the potential to become great new forces in the economic development of poor countries and emerging markets.

III. Methodology and Design

This study is designed to address a basic but highly innovative idea of reducing income inequality among countries where surplus labour force can be fruitfully employed. The idea is to create a self-supporting program of elevating poverty, where everyone can get ahead and become a resourceful person when given a chance to work and earn enough to maximize their own welfare.

The world as a whole is undergoing structural changes on account of rapid integration of trade, finance, human skills, and innovations in a global market setup. As a result, the interdependence of countries is increasing to evolve a highly competitive market structure. Under such a system, it is essential for the business organizations to remain competitive in terms of size, innovations, quality and costs among their competitors; this becomes a necessary condition for their survival.

Income inequality is a matter of serious concern, which is gaining very important value in human societies and is seen increasingly as the biggest threat to social stability around the world. To discuss and analyze the subject of the main study focus is given to low-income countries where the majority of the people are young but without an adequate job to live respectfully in society. The study is designed to introduce a highly innovating program of motivating and incentive, creating a professional relationship between capital investors and human resources to earn the best possible return in running mutual partnership.

The emphasis in this approach is to gather evidence for promoting maximum utilization of available workforce for reducing inequality among various sections of the society. In this attempt, several renowned contributors and their published work on the subject were consulted, to sum up, their findings and supporting evidence to prove their point of view.

The research study made specific recommendations of valuable significance for the developing countries with the surplus population in the world. It gained meaningful participation in improving social stability around the world. The approach is largely analytical to draw conclusions on the basis of the information collected from secondary.

IV. Discussion and Analysis

The world as a whole has a record of some 1.2 billion people suffering from undernourishment, and they account for only 1 per cent of world consumption as compared to nearly million richest consumes 72 per cent. Oxfam (2014) in their report while describing a very pathetic state of affairs pinpointed that 85 people have more wealth than the poorest 3.5 billion people in the world. All this evidence suggests that lower and middle classes are denied a proper share in the national resources. Winnie Byayima, Executive Director of Oxfam International, said, ‘ The billionaire boom is not assign of thriving economy but a symptom of a failing economic system. The people who make our clothes, assemble our phones, and grow our food are being exploited to ensure a study supply of cheap goods, swell the profits of corporations and billionaire investors.’ Apparently, all this boils down to one single but very harsh reality viz. chronic income inequality, spreading widely all over the world. Income inequality is a meaningful indicator to demonstrate how scarce resources are distributed across the societal domain. Economic inequality is widespread and to some extent inevitable. It is our belief, however, that if rising inequality is not properly monitored and addressed, it can lead to various sorts of political, economic, and social catastrophes.

The causes of income inequality differ widely among countries. However, the technical change and globalization seem to have played a dominant role in providing substantial gains to high-skilled labour. We see technology is replacing labour at a much wider scale with the result that the shares of income earned by innovative technical equipment owners seem to have increased relative to labour. David J. Lynch (2012) in his Note under the title ‘Global Economics: It’s a Man vs Machine Recovery’ reported that the U.S. produces almost one-quarter more goods and services today than it did in 1990 while using almost precisely the same number of workers. He admitted that huge advances in technology have allowed businesses to do more with less, vaporizing jobs for everyone from steelworker to travel agents. The co-authors Erik Brynjolfsson and Andrew McAfee of the recently published book 'Race Against the Machine' pointed out that the advanced digital technologies are making people more innovative, productive and richer, both in the short and long run, but potentially at the cost of increasing wealth inequality in society. In their view, as a consequence, digital technological development is causing a negative impact on some of the types of employment, such as routine information processing work. This way, they found that the economy is in the early stages of a 'Great Restructuring' that is hallowing out the labour market and exacerbating inequality. They came to the conclusion that if this is the way we are accelerating our production of goods and services, then definitely we will be creating a great gulf between a few very rich and majority very poor living side by side.

Durkheim (1897) proposed the breakdown of social norms and values, can lead to an increase in the crime rate. Later Merton (1938) prescribed strain theory suggesting that crimes emerge because there is a lack of legitimate means to attain common social goals for the poor. This simply reveals that the inequality of opportunity is the primary basis for committing the crime. The increase of inequality rapid economic growth in China is accompanied by economic disparity, corruption, crime and a great deal of frustration among China's citizens. A number of empirical studies have been conducted to find out the relationship between inequality and crime. Hu, et al. (2005) while examining the impact of inequality on crime rates in China over the period 1978 – 2003 came to the conclusion that all the results of the inquiries they undertook show that the inequality is strongly correlated with crime rates. Huang and Chen (2007) investigated the relationship between crime rates and national Gini coefficient, rural urban divide, came to the conclusion that all the proxies of inequality are positively correlated with crime rates in China in the period from 1978 to 2005.

Krugman and summers are of the opinion that income and wealth inequality is caused by deep structural flaws in the economic system. They suggest that these flaws are a function of market power and need to be identified so that they can be remedied. In line with this thinking, Hurrell and Woods (2000) seem to identify globalization as the key factor, which leads to an increase in inequality. They are of the opinion that trade increases differentials in returns to education and skills, while globalization marginalizes some groups of people and liberalization is not complemented by the development of adequate institutions and governance. Mazur (2000) and Birdsall (1999) found sufficient evidence from China and many transitional economies that are experiencing rising inequalities after their opening up to the world trade. However, Srinivasan and Bhagwati (1999) found some evidence to suggest that globalization helps to reduce inequality. According to Atkinson (2000), rising inequalities in developed countries are being attributed to trade growth or international specialization as well. A significant disparity throughout all regions of the world persists because developing countries have not been allowed to catch up. A study shows that Mexico, being a developing country, maintains membership in the growth of the North America Free Trade Agreement (NAFTA) is left behind in economic struggle [Ferrier (16)]. Such incidences create a class structure amongst nations that promote and increases social inequality for nations that depend on developed nations for trade, financial assistance, political stability and protections.

Kenneth Rogoff, an economist, seems to suggest that globalization played out increasingly in favour of high skilled labour, causing record-high levels of income and wealth inequality around the world. Larry Summers4 while participating in an event sponsored by the Brookings Institute's Hamilton Project, remarked that the economy is not generating sufficient good jobs to remedy the stagnation and deterioration of incomes of the vast majority of the population. The problem of income inequalities is also related to the lack of equal opportunities to access education by the people. This is what came out from the research conducted at the World Bank (2009). China is a fast-growing economy, with GDP growth rates close to 9.5 per cent for the last two decades and still faces unbearable rural-urban income inequality. The IMF, while reviewing the income inequality situation in China, indicated that its current growth pattern would be widening the rural-urban income gap.

There has been a continuous effort to reduce income inequalities among low-income countries. The most commonly discussed remedies to income inequalities rely upon government assistance in various forms such as subsidized food, transport, education and medicine. In Pakistan, the government is providing direct income support, such as 'Benazir Income Support', as well as allowing subsidies in the provision of supplying utilities to the poor, but nothing substantial has been achieved. The micro-credit scheme introduced by Mr. Yunus (Bangladesh) received lots of appreciation all over the world. But in real terms, this facility did not produce significant improvement in reducing income disparities between the rich and the poor. The trickle-down effect of 'Big Push' Rosenstein-Rodan (1943) argument and 'Balanced Growth' Ragner Nurkse (1961) theory rather promoted greater income inequalities, corruption and incompetence among the people living in developing countries. However, big-push strategy when applied in Pakistan in the 1960s, the economy made tremendous advancement, and Pakistan was recognized as one of the known models for other countries to follow. But the benefits of growth were seen reflecting the prosperity and well being of a few families, while the rest of the entire population was seen suffering from poverty and undernourishment. The trickledown effect was not realized, and the country was broken down into two pieces.

However, progressive income taxation, income transfers in favour of low-income communities in the form of subsidized food, transport, education, the medicine may correct to a certain extent inequality in the distribution of disposable incomes, but there are limits to which greater equality in personal income distribution can be realized by these measures. We must look for a self-generating non-redistributive approach to address income inequality especially that does not rely upon government. The income differentials between rich and poor need to be abridged by creating widespread job opportunities for the common man in poor countries. Such job opportunities must be self-motivating for the common man to develop the desired capability and skill to qualify for the job.

If we want to address income inequality on a continuous basis, we need to spur new business formation and dynamism. To do this, we don't need the government we just need to get our smart people building things again. Countries like Japan, where human resources did play an excellent role in producing goods and services at highly competitive costs, suggest that most of the poor countries with abundant human resources can turnaround their economies by following their model. One of the most effective models created by Japan initially and now being adopted by several countries of the world is known as Just-in-Time production process.

JIT system of manufacturing is an excellent tool to beat the competitive superiority of the west, where capital is fast, replacing human effort to produce goods and services. Here in the adaption of JIT system, we create efficiency of individuals for maximization of output to attain cost minimization to reach affordable who were previously denied access Just-in-Time production process as a technique to reduce time, cost and space for the production of specified quality products are of crucial importance in a competitive marketing system. The main benefits of Just in Time Manufacturing System are the following:

1. Funds that were tied up in inventories can be used elsewhere.
2. Areas previously used, to store inventories can be used for other more productive uses.
3. Throughput time is reduced, resulting in greater potential output and quicker response to customers.
4. Defect rates are reduced, resulting in less waste and greater customer satisfaction.

A manufacturing system when split into various well-defined components, just as in the manufacturing of automobiles, can be given to small entrepreneurs to deliver the component at agreed time and place with absolute perfect specified quality, can save several costs such as:

1. Holding raw material for manufacturing of the component.
2. Hiring and supervising manufacturing of the component.
3. Supervising to minimize waste of time in manufacturing of component.
4. Ensuring the perfect functioning of the component.
5. Ensuring the perfect quality design of the component.
6. Ensuring measurements, including the weight of the product.

Henry Ford (1923) in his book ‘My Life and Work’ gave a clear understanding of the concept known as Just-in-Time manufacturing process. According to Ford, buying materials that are not needed for immediate use, are not worthwhile. He observed that if transportation were perfect and an even flow of materials could be assured, it would not be necessary to carry any stock whatsoever. Ford did not follow the JIT system in any sequence to seek the cost efficiencies appreciated by the fast-changing manufacturing system of present-day world. Toyota adopted JIT in the Toyota Production System, as a means of eliminating the seven wastes. When Toyota toured plants in the United States in 1956, the first self-service grocery chain, the Toyota representatives saw in the USA, was a very convincing, demonstration of JIT design of handling various components of the grocery chain.

Many of the labour-surplus countries in the world can make the best use of their labour resources by providing them opportunities to share manufacturing processes in the form of independent producers of well-defined components at costs which if they produce themselves may be more costly in terms of financial emoluments, and time spent for accomplishing the job. Just-in-Time manufacturing system when adopted will be highly beneficial for these counties to employ people to make them work efficiently under a competitive system to bring innovation and quality in their processing of the products so that they can work day and night to achieve high productivity to cut costs. The Just-in-Time manufacturing system in labour surplus countries will create a competitive environment where each competitor is likely to perform with better skill and cost efficiency to win the opportunity to produce for the investor. Thus the Just-in-Time manufacturing system will allow an ideal match between the human productivity and efficiency of the labour force and the availability of financial resources of the capitalists. They will be sharing fruits of their participation without surplus labour force resorting to income supports and subsidies from the government.

Thus the Just-in-Time is primarily an operational technique designed to perform according to a skillfully calculated principle. In this system, all the operational activities are well planned in advance and given precise, realistic time schedule for their delivery. Thus an efficiently managed JIT system creates several cost savings by economizing human and material resources since 1970s Japanese manufacturing organizations (pioneer being the Toyota manufacturing plants) adopted well-defined JIT system to bring several operational efficiencies in handling manufacturing processes to reduce wastes and hence costs as competitors in the business world.

Big businesses are to be split into smaller units to share competitive productivity and cost-efficiency of human skill and expertise. Such a system promotes innovations and specialization in manufacturing products by reducing their input composition to minimize cost components. Thus a big business if split into 10 or 50 or 100 units will create participation of several experts and skilful business partners ready to share manufacturing processes independently taking full responsibility to deliver exactly they were asked to accomplish for making the final product ready for sale. Working of Just-in-Time manufacturing system precisely is designed to split big business units into smaller specialized units where products in the form of components are given to the small entrepreneurs with precise measurements of quality and design desired to be delivered in accordance with a time schedule at the assembly point so that the product can be given final shape as a finishing product. Thus JIT involves manufacturing only what is needed, when it is needed, and in quantity required at a particular time.

List of Companies that use just in time:
1. Harley Davidson
2. Toyota Motor Company
3. General Motors
4. Ford Motor Company
5. Manufacturing Magic
6. Hawthorne Management Consulting

V. Conclusions and Recommendations

Just-in-Time Manufacturing System has tremendous potential for countries where the workforce is not meaningfully employed and the wages are relatively low. Rachael (2009) observed that in the global competition, many of the multinationals are trying to establish their links with these countries to get the low cost advantage by out sourcing many of the components they need to make for their final products. We have supporting evidence to show that countries like China, India, Malaysia, are becoming most popular hubs for manufacturing of parts and components for assembling electronics, automobiles, home appliances, ready-made garment, shoes and several other final products sold by the multinationals.

Vendor industry is an excellent means to bring in small entrepreneurs to share the production process. The skilled manpower working as independent suppliers to assembly line manufacturing process has the competence and competitive strength to provide quality components for national and international consumer markets. China and India have shown how the multinationals are transforming their headquarters to these countries to avail the services of vendors so that they can remain competitive in the global market. With the fast and rapidly changing technology, the large business firms seem to have performed better by sharing their production processes with the entrepreneurs who can serve as independent suppliers of many of the components of the products they like to sell in the international market. The will to perform and the energy to deliver on time are very valuable ingredients of an entrepreneur. These two qualities are available in abundance in population surplus countries, where people are increasingly driven below the income poverty line.

The author has identified an economically feasible solution to make the best use of the semiskilled/skilled workforce by suggesting sharing in the processing of products as an independent supplier. The creation of small entrepreneurs doing the job on their own risk and delivering according to the precise specification of the product, bring cost efficiency, quality assurance, and minimization of administrative and utility costs in delivering the components by the suppliers. In fact, the study advocates rapid expansion in the small entrepreneurs in population surplus countries, where the majority of people are partially employed, and the large business firms have never recognized their ability as small entrepreneurs.

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Bibliogaphy

Ahmad, N., 2011, Vendor industry: Revolution in economic growth, Journal of Social and Development Sciences, 3(2): 39-96.

Banerjee, Abhijit,V., and Esther Duflos, 2003, Inequality and growth: What can the data say? Journal of Economic Growth, 8(3): 667-699.

Bessen, J., 2016, How computer automation affects occupations: Technology, jobs, and skills, Boston University, Law & Economics, Working Paper, 15-49.

Bourguignon, F., 2012, Poverty and inequality, Keynote Speech, Development Dialogue Series: World Bank, Islamabad, Pakistan, July 24.

Bourguignon, Francois, and Christian Morrisson, 2002, Inequality among world citizens, 1820 – 1992, American Economic Review, 92(4): 727-744.

Brynjolfsson, Erik, and Andrew McAfee, 2011, Race against the machine: How the digital revolution is accelerating innovation, Driving productivity, and irreversibly transforming employment and the economy, Lexington, Massachusetts: Digital Frontier Press.

Cheng, T.C.E., and S. Podolsky, 1993, Just-in-Time manufacturing - An introduction, Chapman and Hall, London.

Deaton, Angus, and Jean Dreze, 2002, Poverty and inequality in India: A reexamination, Economic and Political weekly, September 7: 3729-3748.

Easterlin, R. A., 2011, In the long run we're all equally covered in bees, The Economist, July 7, Retrieved from (http//www.economist.com/blogs/free exchange/2011/07/inequality).

Ford, Henry, 2008, My life and work, Amazon.com, August.

Goddard, W. E., 1986, Just-in-time surviving by breaking tradition, Oliver Wight Limited Publications Inc., 5.

Hall, Robert E., and Charles I. Jones, 1999, Why do some countries produce so much more output per worker than others?, Quarterly Journal of Economics, 114(1): 83–116.

John Maynard Keynes, Economic possibilities for our grand children, https://www.sloww.co/keynes-economic-possibilities/

Jonathon, Fahey, 2004, Just in time meets just right (Toyota manufacturing schedule), Forbes, 173, July, Acquired from Business and Company Database, April.

Jones, R. A., 1986, Emile Durkheim: An introduction to four major works, Beverly Hills, CA: Sage Publications, Inc., 82-114.

Kazmi, S.W., 2005, Role of education in globalization: A case for Pakistan, SAARC Journal of Human Resource Development, 1(1): 90-107.

Kennedy, R. E., and Richard H.K.Victor, 2001, Globalization and growth, Houston: Drysden/Harcourt College Publishers.

Kuznets, Simon, 1995, Economic growth and income inequality, American Economic Review, 45(1): 1 – 28.

Leiteritz, R.J., 2000, Book Review, Andrew Hurrell and Ngaire Woods (eds.), Inequality, globalization and world politics,
https://journals.sagepub.com/doi/abs/10.1177/03058298000290030919.

Levin, B., 1997, The lesson of international educational reform, Journal of Education Policy, 12: 253-266.

Lohr, Steve, 2011, More jobs predicted for machines, Not people, Book Review, The New York Times, October.

McGaughey, E., 2018, Will robots automate your job away? Full employment, Basic income, and Economic democracy, University of Cambridge, Working paper, 496.

MacDuffie, J. P., 2007, Managing people across distributed work, Wharton School, University of Pennsylvania.

Management Coaching Training Services, 2006, The Just-in-Time (JIT), June 19, Approach Retrieved from the World Wide Web.

Mazur, Jay, 2000, Labor's new internationalism, New York: Foreign Affairs, 79(1): January/February.

Meschi, Elena, and Marco. Vivarelli, 2009, Trade and income inequality in developing countries, World Development, 37(2): 287 – 302.

Rogoff, Kenneth, 2011, Inequality solutions, Washington: Free Exchange, July.

Stiglitz, J. E., The globalization of our discontent, Columbia Business School, https://www.project-syndicate.org/.../globalization-of-discontent-by-joseph-e--stiglitz-

Suzaki, Kiyoshi, 1987, The new manufacturing challenge: Techniques for continuous improvement, New York: Free Press.

Temple, J., 1999, The new growth evidence, Journal of Economic Literature, 37:112-156, March.

Turbeville, Wallace, 2015, A root cause of 21st Century inequality, Wall Street, February, 25.

Toyota the developer of JIT System, Toyota to recalibrate, 1997, International Herald Tribune, February 8.

Tsun Se Cheong, and Wu. Yanrui, 2013, Inequality and crime rates in China, Business School, University of Western Australia, Discussion Paper, 13.11.

Wicklund. J., and D. Shepherd, 2003, Aspiring for and achieving growth: The moderating role of resources and opportunities, Journal of Management Sciences, 40(8): 1919-1941.

Womack, J. P., D.T. Jones, and D. Roos, 1991, The machine that changed the world: The story of lean production, Harper Business, ISBN: 0-06-097417-6.