CHAPTER 2
LITERATURE REVIEW

2.1 Japanese Economy and MITI during the Post War Period (1950-1960)

"Japan’s post war economy received its first decisive stimulus with what Yoshida Shigeru, the Prime Minister, called “a gift from the gods” in June, 1950" (Heenan, P., 1998). The Japanese economy experienced an economic transformation over the period of 1950s and 1960s. This post war miracle had created Japan to be the first real economic compensation for United States in almost a century. As the world’s second largest economy and the United States’ second largest trading partner, Japan’s influence on the economic growth and policy making in Asia is significant.

During the 1950s, the Japanese economy grew at a historically unprecedented rate. This was highlighted by Tsuruta, T. (1988) in his article namely “The Rapid Growth Era”.4 He explained the growth rate by identifying the Japanese principal economic indicators (Table 2.1). Referring to Table 2.1 with the increase in the capital output ratio remaining at a low level, the source of this growth lay in the marked increase in the investment rate. As a result of this growth in 1968, Japan became the second largest economy in the world after the United States.

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### TABLE 2.1: Japanese Principal Economic Indicators

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<tr>
<td>Real growth rate, %</td>
<td>10.90</td>
<td>8.7</td>
<td>9.7</td>
<td>12.2</td>
<td>5.1</td>
<td>5.6</td>
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<tr>
<td>Investment/GNP ratio (A)</td>
<td>7.9</td>
<td>11.4</td>
<td>14.8</td>
<td>18.1</td>
<td>18.2</td>
<td>17.1</td>
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<tr>
<td>Investment/GNP ratio (B)</td>
<td>10.8</td>
<td>16.5</td>
<td>18.5</td>
<td>18.5</td>
<td>17.8</td>
<td>14.7</td>
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<tr>
<td>Incremental capital-output ratio</td>
<td>0.7</td>
<td>1.3</td>
<td>1.5</td>
<td>1.5</td>
<td>3.6</td>
<td>3.1</td>
</tr>
<tr>
<td>Productivity growth, %</td>
<td>8.2</td>
<td>6.5</td>
<td>8.0</td>
<td>10.4</td>
<td>4.7</td>
<td>4.4</td>
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<tr>
<td>Change in total employment, %</td>
<td>2.7</td>
<td>2.2</td>
<td>1.7</td>
<td>1.8</td>
<td>0.4</td>
<td>1.2</td>
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<tr>
<td>Change in index of mining and manufacturing production, %</td>
<td>15.5</td>
<td>20.3</td>
<td>11.3</td>
<td>15.5</td>
<td>2.0</td>
<td>6.7</td>
</tr>
<tr>
<td>Change in GNP deflator, %</td>
<td>4.1</td>
<td>3.3</td>
<td>5.0</td>
<td>5.1</td>
<td>10.7</td>
<td>4.4</td>
</tr>
<tr>
<td>Change in wholesale price index, %</td>
<td>+0.0</td>
<td>0.5</td>
<td>0.4</td>
<td>2.5</td>
<td>9.4</td>
<td>5.6</td>
</tr>
<tr>
<td>Change in consumer price index, %</td>
<td>3.9</td>
<td>2.0</td>
<td>6.2</td>
<td>5.4</td>
<td>11.3</td>
<td>6.4</td>
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<tr>
<td>Current account surplus ($ million)</td>
<td>—</td>
<td>534</td>
<td>Δ1,058</td>
<td>7,133</td>
<td>6,910</td>
<td>11,632</td>
</tr>
<tr>
<td>Foreign reserves ($ million)*</td>
<td>738</td>
<td>1,824</td>
<td>2,017</td>
<td>4,399</td>
<td>12,815</td>
<td>25,232</td>
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1Adapted from Kosai (1981), p.4. Investment in (A) is in nominal terms and in (B) is in real terms
2Mining and manufacturing.
31952-55
41951-55
*Balance at the end of period.


Several economists pinpointed the growth of Japanese economy in relation to the government intervention. Broadly speaking, the success of the growth during the 1950s highly depends on the Japanese government intervention. For example, as Watanabe, C., mentioned in his article, “Visions in Co-Evolution: A Japanese Perspective on Science and Governance”, MITI established the Large-
Scale R&D Project in 1966 under government's initiatives and laid the groundwork for MITI's long-lasting national R&D programme. The intervention of Japanese government in industrial development already began in the early post war period. Porter, M.E., (2000) in his book titled “Can Japan Compete?” noted that the need of government intervention in industry is vital as Japan needs to catch up with their more developed rivals.

As more and more detailed studies are carried out to examine the relationship between government and industry in Japan, and its current role is re-evaluated within Japan, a clearer picture of the government's influence over the economic development process during the 1960s and 1970s is emerging. During the growth years the Japanese government, primarily through MITI was able to influence market forces without completely overriding them. The control and "guidance" which came principally from MITI had their origins before World War II, although MITI had started life as the Ministry of Commerce and Industry in 1925.

The person who first codified the Japanese government model was Chalmers Johnson, who is sometimes called the father of the Japanese development state concept (Porter, M.E., 2000). Johnson, in his book titled, "MITI and the Japanese Miracle" focus on the Japanese economic bureaucracy, particularly MITI as the leading state actor in the economy. The crucial aspect of Chalmers findings is that the elite bureaucracy controlled Japanese policy-making and the bureaucrats created all-important policies. According to Chalmers, MITI is “a classic example of a bureaucracy that has pursued successful policies"
Johnson’s study is on a classic work on the development of the MITI and how it produced Japan’s economic growth. Though there are a number of other important agents affecting the economy, but the particular speed, form, and consequences of Japanese economic growth are not intelligible without reference to the contributions of MITI.

The most interesting part of Johnson’s book discusses MITI’s origin in the wartime Ministry of Munitions (MM), which during the war had permission to order any enterprise to convert to munitions production. As the MM accumulated numerous powerful functions during the war, the author interestingly writes that “The chief significance of MM for later industrial policy is that MITI managed to retain all of the functions including electrical power, aero plane manufacture, and industrial planning that had first been brought together in MM” (Johnson, C., 1982). Consequently, Johnson considers the post-war period as a mere continuation of the state’s influential role in the economy, and that the MITI and Ministry of Finance (MOF) after the war were to dominate most economic decisions.

MITI’s powers to implement policy were vast. Before the capital liberalization of the late 1960s and early 1970s, no technology entered the country without MITI’s approval; no joint venture was ever agreed to without MITI’s scrutiny and frequent alteration of terms; no patent rights were ever bought without MITI’s pressuring the seller to lower the royalties or to make other changes advantageous to Japanese industry as a whole; and no program for the importations of foreign technology was ever approved until MITI and its various

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advisory committees had agreed that the time was right and that the industry involved was scheduled for 'nurturing' (Johnson, 1982).

Chalmers further highlights that MITI's success could be attributed to its formulation of practical market conforming industrial policies which will lead to investment and rapid growth. This view became widely accepted, as industries that were often cited as the beneficiaries of Japan's unique industrial policies were steel, machine tool, automobiles and computers. These industries are discussed in Chapter 4, which is useful in analysing MITI's implementation of the industrial policies.

In accordance with Chalmers view, Tsurumi, Y., (1976) in his book titled "The Japanese Are Coming" evaluated the economic recovery during the 1950s by focusing on the important role played by MITI especially in the shipbuilding industry. MITI's industrial policy's aim at this point of time is to let the shipbuilding industry spearhead the development of export-oriented heavy and chemical industry. The success of this policy not only reaffirmed the converging conducts of public and private interests but also established a new Japanese technological innovation, which lead to industrial growth. By the mid 1950s, Japanese shipyard's appeared technological able to compete with the world's shipbuilder, the United Kingdom.

Despite shipbuilding industry, MITI also undertook specific initiatives in creating the beginning of the computer industry in Japan especially during the late 1950s to the early 1960s. Tsurumi highlighted two important characteristics of MITI's industrial policies in conjunction with the Japanese computer industry.
Firstly, MITI had successfully pushed IBM from bidding up royalty fees by baiting one eager Japanese firm against the other. Secondly, once this "general rule" of Japanese firms' accessibility to IBM's basic patents was established, MITI relied on this mutual competitive spirit between hopeful entrant firms to guide the computer industry.

A comprehensive study done by Hsu, R.C. (1994), in his book "The MIT Encyclopedia of Japanese Economy" clearly indicates that MITI also promotes automobile industry so that other industries, such as the machinery and steel manufacturing would be promoted as well. Hsu further indicates that during the mid 1960s, MITI recommended mergers between automakers especially to prevent excess competition and promote economies of scale.\(^6\)

During 1950s and 1960s, MITI also provided various industrial assistance such as the low interest loans, tax privileges, tariff exemption for imported machinery and tools, and import protection. Like other ministries, MITI practised administrative guidance in order to implement official policies especially to interact with the private sector. In its actual practice, administrative guidance was applied to a wide range of business activities. Since 1964, Japan started to liberalize its economy. Thus, MITI's direct control over industrial policy started to decline (Jomo K.S. & Wah T.K., 1999). Since then, MITI has increasingly had to rely on administrative guidance to control the economy, which Johnson claims to be the most important market conforming method of intervention (Jomo K.S. & Wah T.K., 1999).

\(^6\) There were too many auto companies, such as Nissan, Toyota, Isuzu, Hino, Mitsubishi, Prince, Toyo Kogyo, Daihatsu, Fuji Heavy Industries, Suzuki and Honda.
According to Johnson the power of administrative guidance is rather like the grant of authority to a military commander or a ship captain to take responsibility for all matters within his jurisdiction. Hsu also defined administrative guidance (gyosei shido) as a suggestion or "unwritten orders" given by Japanese bureaucrats to firms to implement official policies. It is based on the broad discretionary power of the bureaucracy rather than on specific law.

In other book written by Yoshimatsu, H. (2000) namely "Internationalization, Corporate Preferences and Commercial Policy in Japan" administrative guidance played an important role in implementing government policies. For instance, in 1966, MITI used the administrative guidance to force Idemitsu Kosan to comply with the association's effort to curtail crude-petroleum production. Yoshimatsu also gave a similar example as in the same year major spinning firms resorted the same policy in order to help Nisshinbo continue with the recession cartel. Based on this, Yoshimatsu concluded that administrative guidance is a "joint masterpiece" which creates both by administrative agencies and industrial associations that serve as the "confederate organization" of administrative agencies.

Hsu further explained the importance of administrative guidance as it gives the bureaucrats much flexibility in implementing policies and is widely used in the government regulations by bureaucrats to steer the private sector. Hsu cites few examples of administrative guidance in his findings. For example, in the early 1960s MITI used administration guidance to advise firms in steel and auto industries to merge into fewer firms in order to compete with foreign producers.
However, Hsu also stated that the administrative guidance is not always assured, as it is a voluntary guide. For example, the automobile industry did not actually follow the guidance of MITI in the idea of merging in the early 1960s, but could manage to become internationally competitive industry.

Another author that has given a similar example in the automobile industry is Henderson, D.R. (1983) in his article, "Japan and the Myth of MITI". Henderson identified the main weakness of MITI during the early 1950s. Henderson cited the automobile industry as a failure of MITI's industrial policy. According to him, during the 1950s, MITI tried unsuccessfully to force the Japanese automobile industry into a single company because planners were certain multiple competitors would only weaken each other. Also, in the mid-fifties MITI exhorted a Japanese car industry to develop a prototype "people's" model of its product so MITI could designate the winning firm as the single producer. Besides, in the 1960s MITI tried to force this industry's many firms to merge into just a few. Both times the companies rebuffed MITI, and today this industry namely Mitsubishi and Honda is one of Japan's finest where the entire industries were transformed7.

Despite Hsu, Sato, K. (1999) in his book, "The Transformation of the Japanese Economy" also evaluated the role of MITI in practicing administrative guidance. According to him, though administrative guidance is quite influential from the 1950s to the first half of the 1960s, evaluation need to be done on the benefits of it as time has come to use the revisionist approach. Sato pointed out

that the statement saying administrative guidance in executing the industrial policy through MITI lead to Japan's economic growth is often overstated. One of the reason stated by him was during the postwar economy, it was not Japan's bureaucracy, but the entrepreneurial spirit of the private sector that aggressively promoted the postwar Japanese economy.

Sato also mentioned that under the Japanese economic administration, administrative guidance was used as for the purpose of nurturing industry. The tendency of administrative guidance is more towards stabilizing and protecting less competitive companies. Thus, the top companies are not satisfied with the administrative guidance as importance only given to the less competitive companies.

2.2. Changes in Japanese Economy During the 70s, 80s and 90s

With the remarkable success of Japanese industry from the mid 1970s, the content of industrial policy has changed dramatically. Chalmers Johnson's book on MITI and the Japanese Miracle only takes the story up to 1975. Since the middle of the 1970s, things went on a complicated pattern. Heenan, P., (1998) in his book titled "The Japan Handbook" finds that there have been coalitions of interest which include politicians, bureaucrats and representatives of relevant interest groups. They are in competition for scarce resources with other coalitions of interests. This being the case of argument whether it is the coalitions or the bureaucrats, or indeed the corporate sector that really controls the destinies of
Japan. Heenan found that during the 1970s, the inter-bureaucratic competition and conflict have occurred. These divert the goals and interest between MITI and companies. Besides, Heenan also noted that the inter-company competition has led to the inefficiency of industrial policy in relation with the research and development since the latter half of the 1970s.

By the late 1970s MITI's role seemed to be changing from being the stimulator of economic development to the custodian of economic decline. This was mentioned by Wilks, S. & Wright, M. (1991), who in their book "The Promotion and Regulation of Industry in Japan" discuss the role of MITI during the 1970s. They evaluate the role of MITI and note that MITI's vision towards the end of 1970s had been a failure as it had failed to foresee the impact of the Dollar Shock and Oil Crisis. Due to the Dollar Shock, Japanese Yen was seriously undervalued by 1971. Heenan (1998) mentions that the Japanese exports became relatively cheap in world market due to the depreciable value of Yen. Japanese economy slowed after 1973. According to Sato's analysis, the growth rate had turned negative (- percent). Sato regarded this period as a shift from an agrarian economy to an industrial economy, which involved a mass transfer of the farm population to urban areas. He also indicated Japanese financial instability after noting a serious bubble in the stock and land markets, which occurred in the early 1970s.

Though MITI failed to foresee the oil shock, it had conducted several activities in order to overcome the crisis. In conjunction with the oil crisis,

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8 This was the first global oil crisis that began in October 1973, in connection with the Third Arab/Israeli War.
Ozawa, T. (1979) in his book titled “Multinationalism, Japanese Style” outlined several steps that have been taken by MITI. Based on Ozawa’s research, it was found that in November 1973, MITI announced a policy to increase gradually Japan’s import of crude oil directly from oil-producing nations. Ozawa pointed out that Japan had been purchasing the bulk of oil through major international oil companies. In 1972, for example, a mere 2 percent of the total crude oil imported was obtained directly from oil-producing countries. According to Ozawa, MITI’s new policy was aimed at raising the ratio to a level of 40 percent by the end of the decade. In order to achieve this goal, MITI planned to expand the role of the Japan Petroleum Development Corporation (JPDC). Ozawa concluded that MITI had revised the existing law by giving more capabilities to JPDC, which will lead to the participation of investments in oil producing countries and also to stockpile the crude oil.

The two decades preceding the 1973 oil crisis were the years in which the Japanese government actively intervened to promote rapid industrialization. In response to the industrialization process, MacIntyre, A. (1994) in “Business and Government in Industrializing Asia” explains how MITI had promoted the steel industry, automobiles industry, semiconductors and computers and also color television. In the steel industry for an example, MITI ensured that the principal Japanese producers adopted the latest technologies. To ensure this, MITI arranged Nippon Kokan to import the technology needed. MITI permitted Nippon Kokan so that only one firm could have the purchasing power, which leads to lower prices compare to those paid by other countries.
"As Japanese firms became more powerful and moved out into world markets, MITI's role changed greatly, becoming much more that of a convener and forum for consensus building and less a force dictating the rise and fall of sectors and companies." Towards the 1980s, MITI's bureaucrats had only little power compare to the earlier decades. For instance, MITI's control over international trade policy had greatly declined by the late 1980s. The role of Japan External Trade Organization (JETRO) which was established by MITI in 1958 has been diversified, where instead of promoting exports, it now fosters all aspects of Japan's trade relations and enhances the understanding with the trading partners.

The two energy crises in the 70s led to the appreciation of the yen. and subsequent economic stagnation. Watanabe, C. in his article, "Visions in Co-Evolution: A Japanese Perspective on Science and Governance" notes that MITI's Vision for the 1980s was created based on a "creative knowledge-intensive industrial structure". These remain today as the basis for industrial policy, especially for policies to protect or promote specific industries. Uekusa, M., (1988), in his article, "The Oil Crisis and After" states clearly the concept of "creative knowledge-intensive industrial structure" as the leading sector of the

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economy. According to him, the *Vision for the 1980s* holds knowledge-intensive industries, especially high-technology industries.

In addition not all the industries were in line with the knowledge-intensive industrial at the end of the 1980s. This was due to the government business relationships, where the leading firms in Japan were able to accumulate substantial capital and managerial resources. In other words, firms did not prefer government’s intervention and would have liked to work independently. Uekusa further pinpointed that though MITI had favored steel, chemicals, energy-consuming basic materials industries, and other capital-intensive, but in MITI’s own analysis, it found that these industries rebuffed MITI’s favorable actions. Therefore, only a small number of industries benefited from MITI’s policy in allocating resources preferentially to knowledge-intensive industries.

During the 1980s, MITI’s old role in high-technology development has gradually diminished. There are basically three specific factors that disable MITI’s ability to run these consortia. Firstly, most of the firms are large and needed much less funding from MITI. Secondly, Japanese companies now began to do more basic research on their own. Thirdly is the trade pressure, which came from the United States. It is clear that MITI’s “Visions” programme in the 1960s, 1970s and 1980s played an important role in shaping the respective decades. However, a new structural wave emerged in Japan’s science and technology in the late 1980s, which confronted traditional governance with a new challenge.

As Japan entered the 1990s, the industrial situation had undergone changes. Wilks & Wright (1991) evaluated 1950s and 1960s as the ‘high growth’
era, which gave way to the economic problems during the 1970s and 1980s. They summarized that the period during 1990s was smoother and the economic grew steadily based on prosperity and self-confidence. Wilks & Wright pinpointed that MITI’s vision towards the 1990s was more on consumer rights, where the quality of life and the need of Japan to act as an actor in the globalize economy became more important.

During the 1990s, MITI’s Vision moved into a new era of industrial technology (Watanabe, C.). Watanabe stressed that this new industrial technology had the capability of satisfying new problems at a time when economic growth was slowing down. In order to handle these new circumstances, MITI changed the older strategy by creating two comprehensive programmes in 1993, namely The “Industrial Science and Technology Frontier Program” and The “New Sunshine Program”.