

# **Effects of Government Policies on Performance of Coffee Industry in Kenya**

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**Abstract:** *This study sought to determine the factors affecting the performance of the coffee industry in Kenya with a case study of Mathira Constituency. The study sought to find the existing linear relationship between the factors affecting the coffee industry and performance of the coffee industry. The factors that were considered included type of policies, flexibility of the policies and enforceability. The study was grounded on public interest theory of regulation, total quality management theory and Theory of Performance. Mixed mode research approach was used which consisted of the descriptive research design and correlation research design. Simple random sampling technique was used and the sample consisted of 385 respondents out of a population of 26,000 farmers. The study involved a primary data collection from the coffee farmers and the coffee cooperative society managers. The collected data was edited, coded, keyed in and analyzed using Statistical Package for Social Sciences (SPSS). The findings showed that majority of the respondents (78.50%) agreed and strongly agreed that lack of proper government policies regarding to regulation of coffee industry has lead to low performance. Further results found that Increase by 0.693 units in appropriate government policies will have a unit increase in coffee industry performance. These results imply that the government of Kenya should revisit the policies and regulations and adopt new policies that will rejuvenate the coffee industry performance.*

**Keywords:** *Government policy, Performance, Mathira Constituency, coffee industry*

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## **I. Introduction**

### **Background Information**

Coffee was first brought to the region by French missionaries in 1893. Before independence, production was concentrated in a small number of large estates, and Kenyans were not allowed to own or manage coffee farms. It was illegal for smallholders to grow coffee except for small trial areas in the Meru and Kisii districts and almost all Kenya's coffee was produced, by estates owned by expatriate farmers (Akiyama, 1987).

In 1934 the British Colonial Board in London, wanting to diversify the industry, launched a formal "local growers experiment" testing the ability of Kenyans to manage small-scale coffee farms. However, under pressure from local settlers, the government enacted the Native Coffee Growers Act regulating smallholder production. Limits were placed on farm size, restricting production to 100 trees grown on less than quarter acre of land. The natives were also only allowed to establish their farms away from existing white estates. These restrictions limited the ability of smallholders to benefit from the infrastructure that the cluster had developed around Nairobi such as training and financial institutions and the Coffee Board of Kenya. The colonials also prevented small farms from competing with British estates for labor (Barnes, 1979).

Kenya joined the International Coffee Agreement (ICA) in 1962. The ICA was an organization of coffee exporting and importing countries. It was first established in 1962 and then renewed in 1968, 1976 and 1983. The agreement set production quotas on each country based on average production volumes in previous years. The objectives of the ICA were to raise coffee prices which would benefit producing member countries and stabilize coffee prices in the member market. When the agreements were in force, coffee market was regulated through systems of export controls (quotas), which were triggered when prices fell to low levels (Karanja, 1998).

The success of the International Coffee Agreements was to maintain relatively high and stable prices and significantly strengthening the economies of coffee producing countries while enhancing development of international trade and co-operation. However, due to lack of consensus between and among consumer and producer countries the agreements were suspended in 1989 (Gilbert and Brunnet 2008). In desperation, the coffee producer nations formed the Association of Coffee Producing Countries (ACPC) in 1993 as lobby group. However, despite various attempts to impose supply quotas and price bands, the association did not managed to have a major impact on the world coffee trade. Eventually ACPC announced plans to voluntary wind up in January 2002. With the ongoing international developments the government of Kenya also introduced land policies involving land redistribution, subdivision of some estates, and removal of restrictions that constrained Africans from planting cash crops. This measures led to increase in smallholder/cooperative coffee area and the production of small scale farmers surpassed that of estates (Condliffe, *et al.* 2008). Consequently co-operatives

coffee area increased from 13,000 hectares to 128,000 hectares between 1964 and 2005, while the estates area under coffee increased merely from 32,538 hectares to 42,000 hectares in the same period. The near constant coffee area maintained by the estates indicates that policies articulated over this period of time did not favor the expansion of estate coffee. The increase in national total area under coffee was largely driven by smallholders.

The process to liberalize Kenya's market policies began in 1986 after the realization that the government controls of all sectors of the economy including the coffee subsector constrained their development. The policy reforms were spelt out in the government of Kenya 1986 sessional paper no 1 on Economic management for renewed Growth. The paper was calling for a reduction of the government involvement in the non strategic sectors of the economy and promotion of the private sector. As a result of this campaign, trade liberalization was effected in Kenya's sub-sector in 1992 (Thuku, Gachanja and Almadi, 2013).

In 1992, the government issued broad policy guidelines, which started the liberalization of the coffee industry in line with structural adjustment programme (SAPs). Under these guidelines, the coffee board of Kenya (CBK) was required to conduct the Nairobi coffee auction in US dollars. Permission was given for coffee farmers to be paid in dollars and they were also allowed to retain dollars for their own use. This policy was intended to make it possible for farmers to benefit from currency gains and to allow them to participate in foreign exchange dominated trade. However the smallholder farmers who marketed their coffee through co-operatives benefited marginally from the liberalization of the foreign exchange market as most of them lacked the necessary skills needed in the money markets (Thuku, Gachanja and Almadi, 2013)

Another important feature in the act was that it proposed an establishment of a Coffee Development Fund, whose funds were to be used for farm development, purchasing farm inputs and operations, and price stabilization. This fund has already been established. Other interventions included the debt relief of non-performing loans owed by farmers to the Cooperative Bank, retirement of outstanding growers' arrears, and liberalization of coffee marketing through introduction of direct coffee sales. There have also been other notable developments like the adoption of the Ruiru 11 variety which was developed by the coffee research foundation. This is a disease resistant crop which was introduced in the market and expected to cause a reduction in the cost of chemicals.

Karanja and Nyoro (2002) noted that the decline in production was more pronounced in smallholder farms. In most cases, yields in smallholder farms are usually half those realized by plantations mainly due to differences in intensity of input applications, and availability and use of production technologies such as irrigation. Apart from the decline, the yields exhibit high inter-year variation mainly due to weather factors and the bi-annual coffee bearing patterns. Equally, there is wide variation in yields among smallholder farmers even in the same zone or locality depending on their level of coffee management. With all the interventions by the government through policies implementation, the sector has not thrived as expected. The productivity of the crop in the year 2000/01 was 305 kilograms/hectare, in the year 2005/06 it was 284 kilograms/hectare as compared to 825 kilograms/hectare in the year 1987/88. According to the economic survey (2008) the slight increase in production in the year 2006/07 was only attributed to favorable weather conditions.

A diverse range of policies has been used to foster growth of the coffee sub- sector in Kenya. After the implementation of these reforms there was a major shift from government controls to liberalized markets. The shift meant that the government had to reduce its control of agricultural production and marketing and provide an enabling environment for enhanced participation by the private sector. Some of the measures put in the coffee sector included the liberalization of the sector by separating the roles of coffee marketing from its regulation, debt relief of nonperforming loans owed by farmers to the cooperative Bank, retirement of outstanding growers arrears and the establishment of the coffee development Fund to provide affordable credit to coffee growers. Given the impetus of the coffee sector to the Kenyan economy and all the efforts the government has put in place to reform the sector, the study seeks to assess the impact of the said reforms on coffee productivity. The following research question assisted the researcher in undertaking this study; what effects does government policies have on the performance of coffee industry in Kenya?

## **II. Literature Review**

### **Theoretical Review**

There are several theories that explain quality improvement. For instance, Scudder (2013) argues that Total Quality Management (TQM) is a quality improvement body of methodologies that are customer-based and service oriented. A popular TQM theory is Deming's theory of Total Quality Management. The theory rests upon fourteen points of management he identified, the system of profound knowledge, and the Shewart Cycle (Plan-Do-Check-Act). Deming's system of profound knowledge consists of the following four points: System Appreciation which explains an understanding of the way that the company's processes and systems work, Variation Knowledge which explains an understanding of the variation occurring and the causes of the variation, Knowledge Theory which explains the understanding of what can be known and Psychology Knowledge which

examine the understanding of human nature. This theory is deemed relevant since it argues that any industry should have quality system in order to yield quality products which also apply to coffee industry in Kenya.

On the other hand, Crosby theory which emphasizes that quality is neither intangible nor immeasurable. It is a strategic imperative that can be quantified and put back to work to improve the bottom line. Acceptable quality or defect levels and traditional quality control measures represent evidence of failure rather than assurance of success. The emphasis, for Crosby, is on prevention, not inspection and cure. The goal is to meet requirements on time, first time and every time. He believes that the prime responsibility for poor quality lies with management, and that management sets the tone for the quality initiative from the top.

The theory of performance is also based on several axioms for effectiveness in improvement of performance. These include immersion, performer's mind-set and engagement in reflective practice (Sonnentag & Frese, 2001). Immersion into one's environment enables one to develop physically, intellectually and socially hence improving one's social relations, emotions, active learning, and knowledge alignment.

To ensure high level of performance the performer's mind-set is a very essential factor as it engages positive emotions towards the activity and enables the performer to consider failure as a stepping stone to achieving high level of performance. In this regard the farmer's mind-set is essential in decision making on whether to invest in coffee farming or divert to other avenues of production for better profits (Bransford, Brown & Cocking, 2000). Reflective practice creates a platform for one to observe the current performance of an industry, examine the accomplishments, carry out an analysis of strengths, weaknesses, improvements and develop identity thus working for the improvement of the entity.

Elger (2014) in his rationale for performance theory indicates that human beings are able to accomplish extraordinary things in the universe. For example, humans can go to the moon and carry out other activities not because of their ease but because they are hard since the objective will be to measure and organize the individual's skills and energies. He refers to performance as a journey that is classified into levels in which the higher the level the higher the quality and level of effectiveness. The theory recognizes the characteristics of higher performance level to be capability and capacity of the activity, knowledge and skills level, cost effectiveness, quality of the product or the resultant factor and finally motivation and identity (Tomlinson et al, 2002).

### **Empirical Review**

According to the Bates (1997), ICA there was an agreement between Brazil, Colombia and the United States of America. Colombia and Brazil wanted to raise prices on coffee, but they couldn't do that alone, because smaller producers would use the opportunity to cut the prices and sell their products and this way they would cut Brazil's and Colombia's market share. But when United States joined the Agreement small producers just had to go along with Colombia and Brazil in order to be able to access American market that controlled about 40% of total world's import. This simple shows the importance of government policy in protecting coffee sector industry.

There have been significant domestic policy reforms in Ethiopia in the last decade that affected the structure and performance of the coffee export sector. First, from December 2008 onwards it became mandatory for private traders to sell their coffee through the Ethiopian Commodity Exchange (ECX), a new modern commodity exchange. ECX trades standard coffee contracts, based on a warehouse receipt system, with standard parameters for coffee grades, transaction size, payment, and delivery. The first level quality control is decentralized and undertaken in nine liquoring and inspection units in major production areas. The establishment of the ECX has led to important changes in the structure of the coffee value chain (Ruben and Heras, 2012). Second, the government intervened in the coffee market on several occasions in an effort to reduce hoarding by exporters.

In April 2009, six large traders were banned from exporting coffee because of their presumed excessive hoarding. The government revoked their licenses, closed down their warehouses, seized their coffee stocks, and sold them on their behalf (Alemu, 2009). A policy was further implemented in May 2011 that limited the amount of coffee an exporter can store. An exporter, for example, selling and buying coffee on the ECX will have his or her right to trade on the commodity exchange revoked if found to be storing more than 500 metric tons of coffee without a shipment contract with an importer (Tefera and Tefera, 2013). Failing to adhere to these regulations has led to the banning of coffee exporters, as seen in 2011 and 2013 (Araya, 2011; Yewondwossen, 2014).

Gathura (2013) conducted a study on the factors that influence production of coffee by small-scale farmers in Kenya. The establishments under study were small-scale coffee farms in Githunguri District. It was to determine whether marketing factors, finances, government policies and physical and human resources affect coffee production in Githunguri District. Primary sources included use of questionnaires, observation and interviews. Secondary sources included desk research, library research on journals, text books and factory

publications. The target population was over 700,000 small-scale coffee producers in Kenya out of which the accessible population of 10,000 producers drawn from Githunguri District in Kiambu County was selected which a sample size of 120 respondents was sampled specifically, the study investigated the impact of marketing factors, financial constraints, government policies and human and physical resources on coffee production. The study utilized the descriptive statistics to provide the evidence that financial status, the emerging marketing trends in the coffee industry, physical and human resource factors as well as government policies are the key causes of the decline in the coffee industry. Nevertheless, the study did not factor in the quality of coffee, growers capacity with regard to knowledge levels and level of technology as essential factors that affect the coffee production in Kenya.

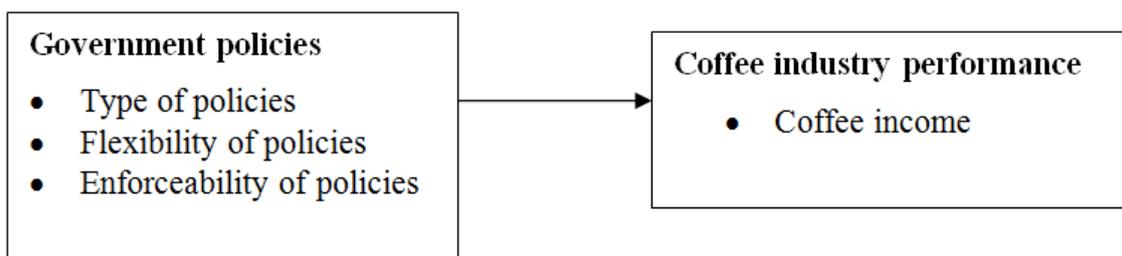
Okibo (2013) conducted a study on effects of coffee liberalization. The study indicates the failure by the government in production of coffee as a major foreign currency earner. The objectives of the study were to identify the effects of deregulating co-operative societies, effects of switching the management of co-operative societies to farmers' committees and impact of licensing many marketing agents and coffee millers. The research findings provided the evidence that liberalization led to a decrease in coffee production. This was associated with the poor management of the co-operative societies, reduced utilization of modernized farm inputs, poor farming techniques, reduced earnings by the farmers and lack of confidence with the new management. The study mainly focused on liberalization policies but there was little attention on the low level of education by the small-scale farmers which contributed majorly in lack of counter attack strategy to the policies introduced by the government in early 1990s.

The emerging policy and institutional framework impacted both positively and negatively on smallholder farmers' welfare. On the positive side, the reforms have reduced the government involvement in coffee matters while encouraging farmers and private sector participation. Gains in lower processing costs and statutory deductions are also anticipated as a result of enhanced competition. It was also expected that delays in payments would also be minimized. Nevertheless, the politicization of co-operatives has led to splits that continue to erode their economies of scale. There has also been an increase in governance problems that have led to an increase in mismanagement of coffee co-operatives. Corruption, lack of financial accountability and transparency are some of the mismanagement issues that cut across most institutions in the coffee industry including co-operatives (Karanja and Nyoro, 2002).

### Conceptual Framework

The government of Kenya contributes immensely in the current performance of the coffee industry. It is involved in formulation of policies that govern the agricultural industry and the rules set forth may affect the performance either negatively or positively. In 1990s, the government of Kenya liberalized the coffee industry with the aim of increasing production and hence promoting foreign exchange earnings as well as increased income by farmers. Nevertheless, the production has continuously reduced and the coffee sector continues to experience depression. Therefore, this study seeks to determine the influence of the different type of formulated policies, their flexibility and enforceability in the performance of the coffee sector

Independent Variables      Dependent Variable



**Figure 1:** Conceptual Framework

### III. Methodology

The study adopted a descriptive research design. Descriptive research design enhanced clear examination of the research topic and also facilitated data collection process by answering questions concerning the study as per the current status (Gravetter & Forzano, 2011). A descriptive survey entailed the collection of information by administering a questionnaire to a sample from the entire population of study. The study targeted the managers of coffee cooperative societies and coffee farmers in Mathira constituency. The study used primary data collected from a representative sample of the entire population via questionnaires which was used to solicit information as per the objectives of this study.

The target population in this study was 26, 000 coffee farmers inclusive of factory managers in Mathira constituency. Simple random sampling technique was used in this study. Primary data was of essence in this

study as it allowed the researcher to address issues that are specific to their study. Primary data was collected from respondents via questionnaires. The questionnaires were administered to the coffee cooperative society managers, who are the project representatives, and to the randomly selected members of the community by the researcher. The questionnaire comprised of the questions that intended to answer the questions formulated with reference to the objectives of the study and the research questions.

The researcher furnished the respondents with an introductory letter issued by the university to instill confidence into the respondents. Piloting was carried out to assess the ability of research instruments in collecting viable and reliable data that corresponded to the objectives of the study. The research yielded quantitative and qualitative data. The quantitative data was analysed using both descriptive statistics and correlations. Descriptive statistics helped to get the measures of central tendency and measures of dispersion which included the mean and standard deviation. The study used the quantitative method of data analysis. Data analysis played an important role in conversion of raw data into a form that can be subjected to statistical interpretation and presentation. The collected data was edited, coded, keyed in and analysed using Statistical Package for Social Sciences (SPSS). The researcher upheld ethical issues in the process of the study and gave respondents assurance that confidentiality was observed and data collected was to be used for research purposes only. The researcher obtained an informed consent from every respondent and all the relevant authorities were consulted. The researcher sought permission to collect all the necessary data required.

#### IV. Results And Discussions

Results are presented in tables and diagrams. The analyzed data was arranged under themes that reflect the research objectives. The number of questionnaires that were administered was 385. A total of 385 questionnaires were properly filled and returned. This represented an overall successful response rate of 92.5% as shown on Table 4.1. According to Mugenda and Mugenda (2003) and also Kothari (2004) a response rate of 50% is adequate for a descriptive study. Babbie (2004) also asserted that return rates of 50% are acceptable to analyze and publish, 60% is good and 70% is very good.

**Table 1: Response Rate**

Response	Frequency	Percent
Returned	385	92.5%
Unreturned	31	7.5%
<b>Total</b>	<b>416</b>	<b>100%</b>

#### Demographic Characteristics

**Table 2: Demographic Characteristics of the Respondents**

Age of the Respondents	Frequency	Percent
18 to 30	1	0.3
31 to 40	48	12.1
41 to 50	111	28
over 50	235	59.3
Total	396	100
Gender of the Respondents		
Male	177	44.7
Female	218	55.1
Total	396	100
Monthly Income of the Respondents		
income_below_2200	138	34.8
income_between_2201_to_6000	128	32.3
income_over_6001	130	32.8
Total	396	100
Land Respondents have Under Coffee		
less_than_4_acres	367	92.7
4.1_to_10_acres	3	0.8
over_10_acres	26	6.6
Total	396	100

Majority of the respondents who participated in this study were male who were represented 55% of the sample while 45% were female. The respondents were asked to indicate whether they were members of a cooperative society or not. Result in figure 4.2 shows that 96% of the respondents were members of cooperative societies while 4% were not members of the cooperative society. The respondents were also asked to indicate their age bracket. Results in showed that 60% of the respondents were over 50 years, 28% were between 41 to 50 years, 12% of the respondents were between 31 years to 40 years this indicate that those who were the majority were above 50 years. Results further showed that 35% of the respondents earned below ksh. 2200

while 33% of the respondents earned income of over ksh. 6001 while 32% represented respondents who earned between ksh. 2201 to 6000 this implies that majority of the respondents generated an income of below 2200 from coffee farming.

**Descriptive Results of Government Policy**

The objective of the study was to establish the effect of government policies on the performance of coffee industry in Kenya. The results showed that 52.50% of the respondents agreed that the withdrawal of farm inputs loans scheme affected the productivity of the farmers and thus leading to low performance of coffee. Further results showed that high taxes imposed on farm inputs have tremendous negative effects on coffee industry and thus leading to low performance as indicated by 26.30% of the respondents who agreed with the statement. Results also showed that 72.00% of the respondents agreed that CBK lacks accountability, transparency and order in its operations and thus lowering the performance of coffee industry. Further, results show that 73.90% of the respondents agreed that issuing of license to the major market players increases the sale of coffee cherries in the black market ("cherry hawking") and thus leading to low performance of coffee industry. Further, 78.80% of the respondents agreed that corruption and impunity in cooperatives is attributable to ignorance by the government and this leads to low performance of coffee industry. These results imply that the coffee industry in Kenya faces challenges posed by existing in policies. The average likert scale of the responses is 4.298 which indicates that majority of the respondents agreed to the statements. The standard deviation was 0.6968 which indicates that the responses were varied.

**Table 3: Descriptive Results of Government Policy**

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	mean	STDEV
The withdrawal of farm inputs loans scheme affects the productivity of the farmers and thus leading to low performance of coffee	0.3%	3.5%	12.9%	52.5%	30.8%	4.1	0.77
The high taxes imposed on farm inputs have tremendous negative effects on coffee industry and thus leading to low performance	0.0%	32.3%	25.0%	26.3%	16.4%	3.27	1.083
The CBK lacks accountability, transparency and order on its operations and thus lowering the performance of coffee industry	0.0%	0.8%	2.5%	24.7%	72.0%	4.68	0.561
Issuing of license to the major market players increases the sale of coffee cherries in the black market("cherry hawking")and thus leading to low performance of coffee industry	0.0%	0.5%	1.8%	23.8%	73.9%	4.71	0.521
Corruption and impunity in cooperatives is attributable to ignorance by the government and this leads to low performance of coffee industry	0.0%	0.0%	5.3%	15.9%	78.8%	4.73	0.549
<b>Average</b>						<b>4.29</b>	<b>0.696</b>

**Correlation Results for Quality of Coffee and Coffee Industry Performance**

The results presented in the Table 3 showed that government policy and performance of coffee industry have positive and significant association (r=0.247, p=0.000).

**Table 4: Correlation Results of Government Policy**

		Government Policy	Performance of Coffee industry
Government Policy	Pearson Correlation	1	.247**
	Sig. (2-tailed)		.000
	N	385	385
Performance of Coffee industry	Pearson Correlation	.247**	1
	Sig. (2-tailed)	.000	
	N	385	385

\*\* . Correlation is significant at the 0.01 level (2-tailed).

**Regression Results of Government Policy and Performance of Coffee Industry**

The results presented in table 4 present the fitness of model used in regression to explain the study phenomena. Government policy was found to be satisfactory variable in explaining coffee industry performance. This is supported by coefficient of determination also known as the R square of 41.5%. This means that the above variable explained 41.5 % of the variations in the dependent variable which is performance of coffee industry in Kenya. This result further suggests that the model applied to link the relationship of the variables was satisfactory.

Table 5: Regression of Coefficients

Parameter Estimate	Performance of Coffee Industry Coefficient(P value)
<b>Constant</b>	1.176 (0.000)
<b>Government Policy</b>	0.693 (0.000)
<b>R Squared</b>	0.415
<b>F statistic (ANOVA)</b>	81.782 (0.000)

The findings showed that majority of the respondents (78.50%) agreed and strongly agreed that lack of proper government policies regarding to regulation of coffee industry has lead to low performance. Further results found that Increase by 0.693 units in appropriate government policies will have a unit increase in coffee industry performance. These results imply that the government of Kenya should revisit the policies and regulations and adopt new policies that will rejuvenate the coffee industry performance. These findings agree with those of Gathura (2013) conducted a study on the factors that influence production of coffee by small-scale farmers in Kenya and found out that marketing trend in the coffee industry, physical and human resource factors as well as government policies are the key causes of the decline in the coffee industry. The findings also agree with those of Okibo (2013) who conducted a study on effects of coffee liberalization. The study findings indicated that the government has failed in production of coffee as a foreign currency earner.

## V. Conclusion

The study concluded that government policies affect the performance of coffee industry in Kenya. Policies such the withdrawal of Farm Inputs Loans Scheme, high taxes imposed on farm inputs, CBK lacks accountability and transparency and Corruption and impunity in cooperatives have contributed to low performance of coffee industry. The study therefore concludes that there is a positive and significant relationship between government policies and performance of coffee industry in Kenya.

## VI. Recommendation

The following recommendations based on the study findings are suggested to help boost performance of coffee industry in Kenya.

- I. The coffee industry players and the government need to harmonize the policies regulating coffee industry in order to achieve a robust industry.
- II. The policies must be formulated with the benefits to farmers in mind and this will act as incentives to farmers to commit them to coffee farming.
- III. Farm Inputs Loans should be re-introduces, taxes on farm input harmonized, and the government should ensure that CBK is corruption free to pump new energy into the coffee industry.
- IV. In addition, CBK should be accountable in its transactions; exploitative middlemen should be rooted out of the industry to lay proper grounds for rejuvenation of coffee industry in Kenya.

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