FIJIAN PRODUCTIVITY REPORT 2018

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Ministry of Employment, Productivity and Industrial Relations in accordance with 2005 Productivity Charter with key responsibilities entrusted to the National Productivity Organisation (NPO) of Fiji to undertake Productivity Measurement


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MESSAGE FROM THE MINISTER

THE HONOURABLE MINISTER FOR EMPLOYMENT, PRODUCTIVITY & INDUSTRIAL RELATIONS AND YOUTH AND SPORTS

Bula Vinaka!

The Fijian Productivity Report is a step in the right direction for the National Productivity Organisation and I am glad that the report aligns well with Fiji's Productivity Movement.

The Government has placed its priority on human resource development and made proactive efforts to enhance labour productivity and global competitiveness. On this same note, it is heartening to see many key industry players such as the Private sector organisations, Government Ministries and the relevant agencies working together in raising greater confidence by setting new visions for our country.

The Ministry of Employment, Productivity and Industrial Relations will continue to work very closely with the National Training and Productivity Centre to undertake Productivity Measurement at National level and publicise the report.

A holistic approach involving all key stakeholders including Government, industries and the private sectors will set the platform we need to support Nationwide Productivity Movement. In turn, it will support our efforts in enhancing productivity with the ultimate aim of achieving continued economic growth. We hope to empower all Fijians to transform Fiji through the change of mindset, focus on creating a culture of productivity and sustainability.

The recent launch of the National Productivity Master Plan for the country for the next 15 years has challenged us to set the pathway for a nationwide agenda. This blueprint will no doubt strengthen governance and intuitional mechanisms for implementation of the Productivity strategies. With more collaboration efforts between key stakeholders will assist in outlining and formulate action plans in order to effectively drive Productivity. I hope this report will set new benchmarks and serve as an important document for all researchers and decision makers on policy formulation and working towards making this country a more resilient one.

Finally, I would like to thank APO for their assistance in providing the resources for this specialised training including the expert trainers from Malaysia Productivity Corporation. A big Vinaka Vakalevu to the support team for all their efforts and to the Taskforce Team for taking the challenge to complete the project.

God Bless Fiji!

Hon. Parveen Kumar Bala
Minister for Employment, Productivity and Industrial Relations and Youth and Sports

DIRECTOR'S STATEMENT

NATIONAL TRAINING & PRODUCTIVITY CENTRE

The National Training & Productivity Centre (NTPC) is pleased to present the Fijian Productivity Report for 2018 which analyses Productivity Performance at both National level & Sectoral level. This also benchmarks the country's productivity to international levels and provides recommendations for improvement. The report provides us with a view of where we are in terms of productivity, and places emphasis on stakeholders to work with the Fiji Government and Fiji NPO (NTPC) to map pathways towards higher sustainable productivity.

Productivity Measurement remains one of the key challenges for NTPC and we continue to work closely with Asian Productivity Organization (APO) in this area. The NTPC under the 2005 Productivity Charter spearheads Fiji's efforts in boosting Productivity and Competitiveness, and this is achieved through collaboration and partnership with various Government Ministries and the Private sector.

The NTPC directly supports local businesses with its vast training programs to assist in steering organisations to greater productivity growth through specialised trainings on Productivity initiatives and Quality tools such as Business Excellence, Quality Circles, Team Excellence, Lean, 5S, Kaizen and Six Sigma. The NTPC has also initiated industry trainings on Green Productivity, Industry 4.0 and Foresight. The key emphasis is on change of mindset and culture. We hope that through these initiatives and programs, we are empowering and facilitating local businesses to grow, be more innovative and competitive and to be ready for the challenges of the future.

Through the Fiji Governments' 5-Year & 20-Year National Development Plans, and the recently launched Fiji National Productivity Master Plan 2021-2036, we have an excellent opportunity ahead of us to work together to transform Fiji's economy into a more dynamic, resilient and inclusive one leading to a better quality of life for all Fijians.

I would like to acknowledge APO and the Ministry of Employment Productivity and Industrial Relations for their continued assistance towards NTPC in this area and also to Malaysia Productivity Corporation (MPC) for their support by providing two experts for the Productivity Measurement training. I also acknowledge the support from Office of the Prime Minister, Reserve Bank of Fiji, Fiji Bureau of Statistics, and FNU Vice Chancellor, including other stakeholders who were part of the initial training engagement. Many thanks to the Taskforce team for their contribution, inputs and also to our Consultant Dr. Janesh Sami of USP.

Dr. Isimeli Tagicakiverata
Director - National Training and Productivity Centre

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MPC
MALAYSIA PRODUCTIVITY CORPORATION

EXECUTIVE SUMMARY

The Productivity Movement is a national effort of key stakeholders in the Public and Private sectors to achieve economic and social progress. The concept of Productivity Measurement emerged from the 1995 Tripartite Round Table Conference (RTC) and the eventual outcome of the RTC was the 2005 Productivity Charter for Fiji. The National Training & Productivity Centre was tasked with the responsibilities of implementing the initiatives of the Charter.

Productivity is commonly defined as how efficient resources such as labour and capital, are being used in an economy to produce a given level of output. It is measured as a ratio between the output volume and the volume of inputs. Productivity is an important pillar of a modern and efficient economic system and has powerful influence over the economic and social well-being of members of the society.

This report provides important insights into productivity in Fiji at national and sectoral levels which offer valuable information for policy makers, researchers, non-governmental organizations, students and the general public. The report provides insights into both types of productivity - labour and capital productivity. Most importantly, it provides a basis for formulation, implementation and evaluation of strategies to improve productivity at sectoral and sub-sectoral levels. It also underscores the importance of greater partnership across various institutions and bodies to work together to find solutions to raise productivity. The analysis of recent labour market conditions point to significant disparity across the divisions and gender, and requires taking a coordinated approach.

Most of the data is extracted from administrative sources published by the Fiji Bureau of Statistics, Reserve Bank of Fiji (RBF), International Labour Organization (ILO), World Bank and Asian Productivity Organization (APO). Given the data availability and for the sake of consistency, our analysis on sector and sub-sectoral level is restricted to the period 2008-2014. Wherever possible, recent data up to December 2018 has been included. The level of analysis at sub-sectoral levels focuses on the dominant sub-sectors' and therefore not all sub-sectors are included.

Fiji's economic performance over the past eight years (2009-2017)

'Dominant sub-sectors were identified according to the value-added contribution.

continued to be on an impressive track given high rates of economic growth, stable financial sector, increased tax revenue collections and higher investment in infrastructure coupled with public sector and labour market reforms. Therefore, Fiji has noted a gradual decline in the national unemployment rate in the review period. In addition, the labor force participation rate has noted an increase across the age groups.

In recent years, the government has undertaken a number of reforms to increase productivity. One of the major reforms that the government has pursued is the Civil Service Reform. The Civil Service Reform (CSR) program started in 2008 and focuses on the review and restructure of ministries and departments to streamline functions and operations and help reduce cost, efficiency and productivity.

The three components of the civil service reform are:
a) Human Resources Management
b) Productivity Management
c) Organizational Management

As far as the labour market is concerned, the government introduced the Employment Relations Bill to promote consensual resolution of disputes, reduce strikes and work stoppages. Since land is an important factor of production, the government through the Land Bank Decree 2010 established Land Use Bank to ensure more land is available for productive purposes. The government has also expanded tax free region incentive across the country (Vanua Levu and selected outer islands such as Rotuma, Kadavu, Lomaiviti and Lau) and significantly reduced Fiji's corporate tax rates and increased threshold of taxable income for individuals. These are expected to positively boost firm-level efficiency and domestic productivity either directly or indirectly. The government is currently undertaking consultations for national minimum wage and working towards developing National Productivity Charter.

NATIONAL TRAINING AND PRODUCTIVITY CENTRE

FIJI NATIONAL UNIVERSITY

NATIONAL TRAINING AND PRODUCTIVITY CENTRE

INCREASE PRODUCTIVITY

OVERVIEW

The National Training & Productivity Centre is the National Productivity Organisation of Fiji and is responsible for promoting and enhancing Productivity and Excellence in Fiji. The National Training & Productivity Centre also acknowledges that keeping itself abreast with changes both at the National and global level is necessary. The changes are manifold and require interventions through promotional initiatives and consultancy.

The National Training & Productivity Centre continues to set new standards by fulfilling its role in providing In-service Trainings and Consultancy to the industries. Earlier this year, the NTPC had undergone a transformation which saw the set-up of the new structure of two Divisions for NTPC. One of the key roles of NTPC is upskilling the workforce through identifying and addressing skills mismatch or jobs needing skilled workers, in collaboration with our local strategic partners.

NTPC also manages the National Apprenticeship Training Scheme in partnership with the industries to address skills requirements and competencies for different trades, through a combination of hands-on and off-the-job training. The National Trade Testing Department is responsible for Occupational Skills Standards; establishing national skills standards, and certifying skills acquired by craftsmen over years of practical or job experiences. These two departments now fall under the Division of Productivity & Consultancy.

The NTPC continuously conducts value adding into its product offerings by consistently reviewing and revising its programmes through the Industry Discussion Forums, Consultancies, Industry Training Advisory Committees, and Technical Expert Services, so that we remain upbeat with current trends, and are also able to share industry best practices.

NTPC looks forward to working with all stakeholders in delivering its core mandate and exceeding customer expectations of its products and services.

Visit our website: www.fnu.ac.fj

NTPC

National Conference on Information Technology

National Convention on Quality

Non Formal Education

National Trainers Conference

National Apprenticeship

Quality Standards

Aviation & Travel

Productivity & Quality

Quality Awards

National Trade Test

Occupational Assessment

Fiji Business Excellence Awards

Information Technology

Fashion and Design

Mechanical Engineering

Hospitality & Tourism

Automotive Engineering

Marine & Ports

Construction Industry

Executive Management

Electrical & Electronic Engineering

CHAPTER 1

AN OVERVIEW OF FIJI'S MACROECONOMIC PERFORMANCE OF FIJI

1.1 RECENT MACROECONOMIC PERFORMANCE

This section provides an overview of Fiji's recent macroeconomic performance. Fiji has a population of less than 0.9 million. Fiji's economic growth rate over the period 2012-2016 stood impressive at around 3.2 percent, while average inflation rate stood at 2.4 percent over the same period. Recent data from 2008-2009 and 2013-2014 Household Income & Expenditure Survey reveals that the percentage of population in poverty and percentage of households in poverty both has declined from 26 percent to 22 percent and from 31 percent to 28 percent, respectively.

3.2 %

28 % ↓

22 % ↓


TAPPOOCITY


BSP SUVA CENTRAL
BSP
Optometrist


fiji


Prouds
Prouds
CITY FOREX

Macroeconomic performance is a broad term. However, one can use various indicators to assess the macroeconomic performance of an economy. One of the key indicators used by economists to examine the macroeconomic performance of an economy is Gross Domestic Product (GDP) - which refers to market value of all final goods and services produced in an economy in a given year.

The growth rate of GDP is an important indicator as it directly reflects on the labour market condition. For instance, higher GDP growth implies more jobs are being created and more people are employed. Thus, it is important to examine GDP growth rate.

Being a small emerging market nation in the global economy, Fiji's inflation performance has been affected by a host of domestic and external factors. Existing economic data on trade indicates that Fiji's economy is increasingly getting connected with the rest of the world through trade and information technology.

However, given the gap between imports and exports, the current account performance has been mediocre, suggesting the importance of long-due economic diversification (see Table 1.0).

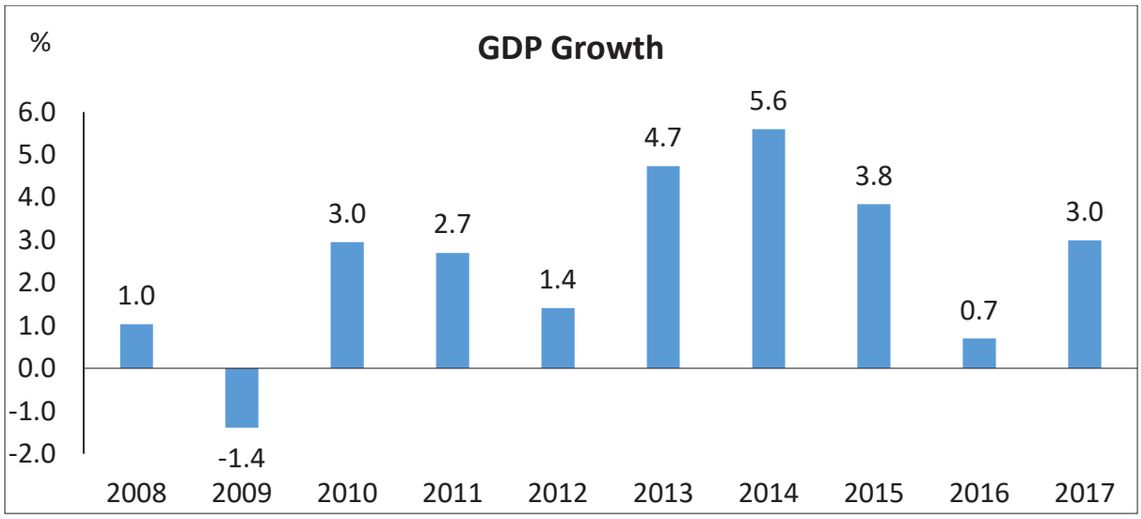
Table 1.0 Selected Economic and Demographic Indicators for Fiji (2012-2016)

Panel A: Selected Economic Indicators					
Indicator Name	**2012**	**2013**	**2014**	**2015**	**2016**
GDP growth (%)	1.4	4.7	5.6	3.8	0.7
Annual average Inflation Rate (%)	3.4	2.9	0.5	1.4	3.9
Labor force	359,045	364,959	370,549	371,824	374,560
Domestic credit to private sector (% of GDP)	76.8	74.9	78.6	84.6	89.1
Trade (% of GDP)	124.7	128.5	115.9	105.5	78.0
Current account balance (% of GDP)	-1.4	-9.7	-7.5	-3.5	-5.1
Personal remittances (% of GDP)	4.8	4.9	4.9	5.8	5.8
Foreign direct investment, net inflows (% of GDP)	9.5	6.3	7.8	7.1	6.0
Panel B: Selected Demographic Indicators					
Indicator Name	**2012**	**2013**	**2014**	**2015**	**2016**
Annual Population Growth (%)	0.7	0.7	0.7	0.7	0.7
Age Dependency ratio	51.8	52.2	52.5	52.8	53.0
Total Fertility Rate (births per woman)	2.6	2.6	2.6	2.5	2.5
Infant Mortality Rate (per 1,000 live births)	20.4	20.4	20.6	20.8	21.1
Life expectancy at birth (years)	69.6	69.8	70.0	70.1	70.3

Source: World Development Indicator 2019

Taking into account our resource capacity and recent investment in human and physical capital, the Fijian economy has the potential to grow at 5.0 percent annually. However, our economic performance has been erratic in the last 20 years with average growth rates of 5.5 percent, 1.9 percent, and 3.0 percent in the 70s, 80s and 90s respectively. The average growth rate during the period 2001-2009 was 1.2 percent. With supportive monetary and expansionary fiscal policy involving sustained public sector reforms and major infrastructure investments around the country by the Government, the economy registered an average GDP growth rate which stood at 3.6 percent for the period 2013-2017 (Reserve Bank of Fiji, 2018). Provisional estimates (under the 2011 GDP base) suggest that Fiji's economic growth rate in 2017 has been 3.0 percent and in 2018, the economic growth rate is estimated to be around 3.2 percent. Figure 1.0 shows that Fiji has experienced eight years of consecutive growth since 2010, although the growth has been volatile.

Figure 1.0



Source: Fiji Bureau of Statistics (2018)

1.2 SECTORAL PERFORMANCE

In 2017, Fiji noted broad based positive sectoral performances, recording a total of 842,844 tourists due to higher arrivals from Australia, New Zealand and the US. In addition, electricity generation picked up while production of timber and gold fell in 2017. Major contribution to output in 2017 came from Agriculture, Wholesale and Retail, Financial & Insurance activities Construction and the ICT sectors.

For most of 2016, sectoral performances remained mixed. A strong performance was noted for gold production, while Tropical Cyclone Winston had a negative impact on various other sectors due to major infrastructural impediments. The economy's expansion in 2016 was driven by positive growth contributions from industries such as Wholesale and Retail, Public Administration and Defence, Construction, Information and Communication, and Education. On the other hand, there was

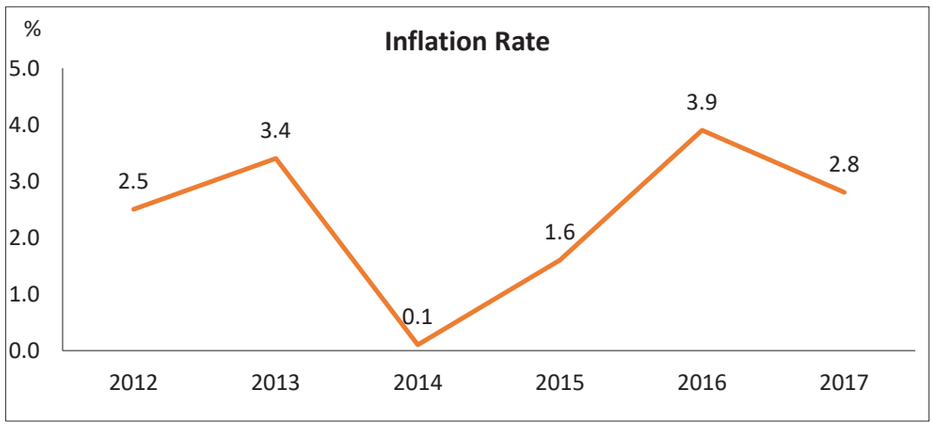
contraction in the Agriculture, Forestry and Fishing, Accommodation and Food Service activities, Real Estate activities, Manufacturing, and Financial and Insurance activities due to Tropical Cyclone Winston.

In 2015, sectoral performance was positive. Growth was supported by electricity, gold, and tourism sector. However, decline in production was noted in sugar, timber, and fish. Strong consumer spending and investment activity supported aggregate demand in 2015. In 2014 and 2015, much of growth was due to positive performance in Finance and Insurance, Public Administration, Agriculture, Manufacturing, Wholesale and Retail, Transport and Storage. Growth in 2012 slowed slightly from the previous year due to weak performance in the Forestry and Financial sectors. However, strong growth was noted in Agriculture and Fishing, Information and Communication, and Transport and Storage. The high growth of 4.6 percent in 2013 is attributed to the Construction, Wholesale and Retail, Manufacturing, and Information and Communication sectors and primarily driven by Finance and Insurance.

1.3 INFLATION

Inflation rate is another indicator used to examine macroeconomic performance. Traditionally, Fiji has not experienced high rates of inflation. The average inflation rate measured by the consumer price index over the period 2013-2017 was around 2.4 percent. Much of inflation in 2016 was a result of domestic supply-side factor such as natural disasters (floods and cyclones). Going forward, supply side shocks from oil prices and natural disasters could place upward pressures on inflation Another important observation from Figure 1.1 is that Fiji managed to maintain an inflation rate below 3.0 percent with the exception of two periods (2013 and 2016), possibly due to natural disasters such as flooding.

Figure 1.1 Inflation rate (2012-2017)

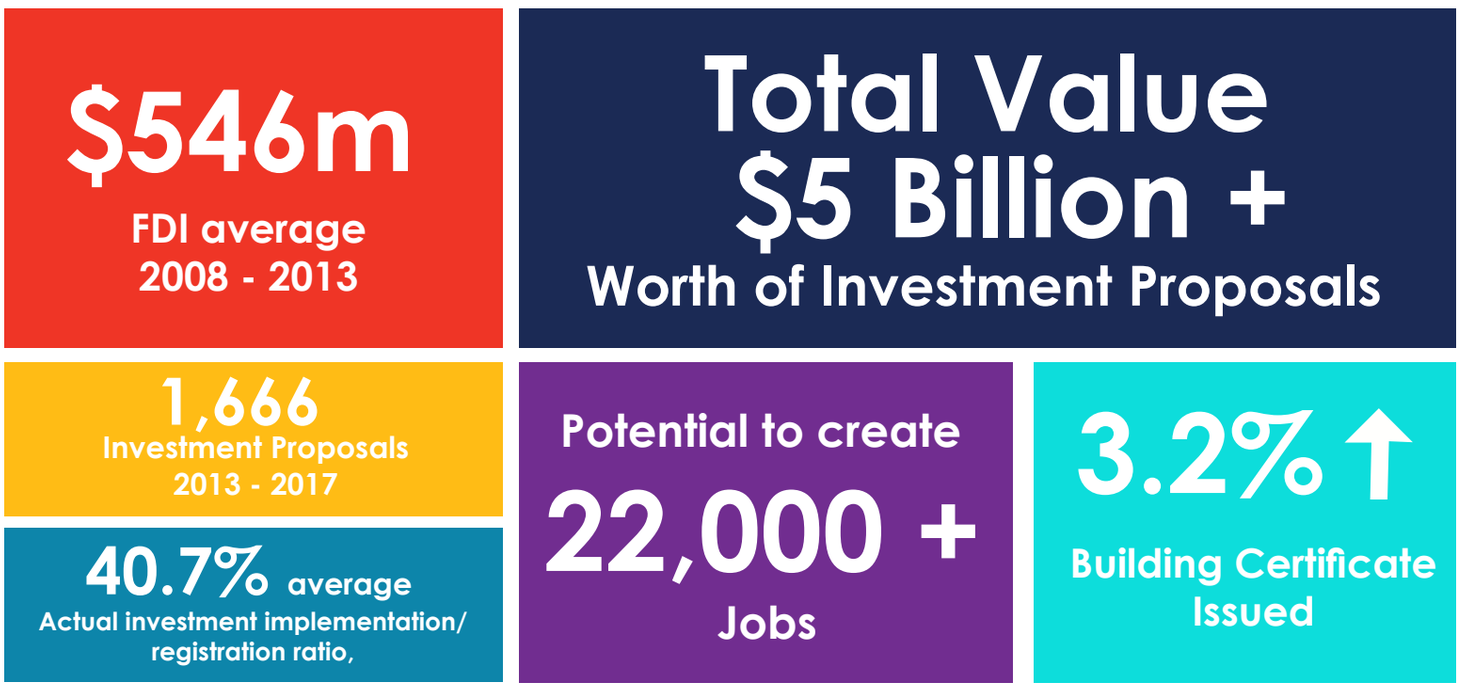


Source: Fiji Bureau of Statistics (2018)

1.4 CONSUMER AND INVESTMENT SPENDING

In the medium term, rising consumption spending may cause inflationary pressures and therefore reduce planned investment spending and disrupt business planning. For a more sustainable long-term growth, focus should be on creating new employment opportunities through increased domestic investment and Foreign Direct Investment (FDI) rather than promoting consumption spending. Indicators show consumer spending strengthened over time due to higher disposable income and inward remittance. In 2017, consumption spending remained strong due to favourable monetary policy, labour market conditions and higher disposable income.

In recent years, investment has been positive because of large construction activity due to increased government spending on infrastructure and reconstruction work due to Cyclone Winston in early 2016. Investment level has been hovering around 17.0 percent of GDP for the period 2008-2013. However, over the period 2012-2016, total investment as a percentage of GDP stood around 21.0 percent. General government investment has increased from 3.5 percent of GDP to 7.1 percent in 2016 (Fiji Bureau of Statistics, 2018). A significant portion of investment spending has been made by the Private and Public Enterprises.



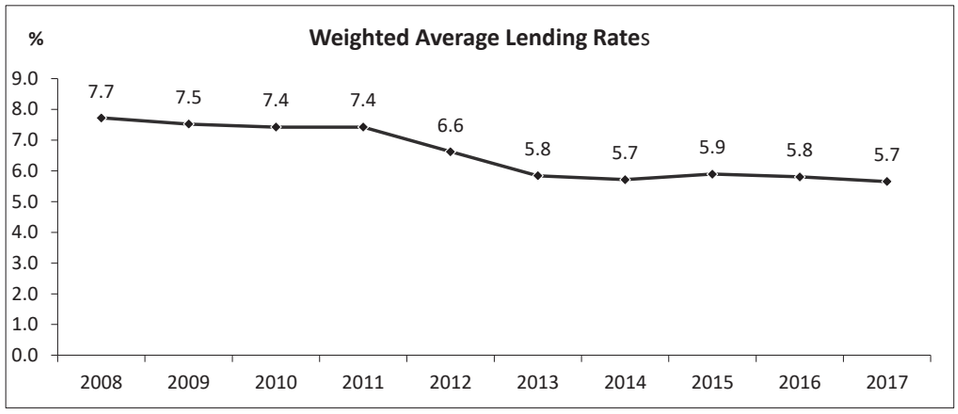
Inflows of Foreign Direct Investment (FDI) into Fiji have been around $546.0 million on average for the last six years (2008-2013). During period 2013-2017, a total of 1,666 investment proposals have been registered, whose value exceeds $5 billion and has the potential of creating nearly 22,000 new jobs (Government of Fiji, 2018). Foreign investment registrations in Fiji increased from 257 to 418 over the period 2013-2017 reflecting increased investor confidence in Fiji's economy. In terms of building statistics, it has been noted that the number of building permits issued for the last 6 years (2008-2013) has been declining at a rate of 3.7 percent annually for new private dwellings while 3.7 percent increase was recorded for other buildings . However, the number of permits issued improved in 2014 and 2015 but declined in 2016. In 2017, 1,618 permits were issued (Fiji Bureau of Statistics, 2018).

Certificate issued for other buildings increased by 3.2 percent annually. However, being mindful of the statistical lag period and challenges, the decline in statistics for new private dwellings does not augur well for growing economy; hence government needs to provide appropriate incentives in the construction sector given its positive ripple effect on related sectors of the economy. In terms of actual investment implementation/ registration ratio, investment ratio averaged around 40.7 percent 2008 to 2013. In 2013, the value of projects implemented had increased substantially due to completion of major projects such as the Grand Pacific Hotel, Damodar City Centre, Tengy Cement Factory, Wyndham Vacation Resort, and implementation of other on-going projects such as the Pearl redevelopment, Vatuvara Limited, Peppers Naisoso, Danam and Amex Resources.

1.5 MONETARY POLICY

Over the last ten years, the weighted average lending rates has been gradually declining. The average weighted average lending rates over the ten-year period was 6.6 percent. Recent data from Reserve Bank of Fiji suggest that lending by commercial bank for investment purposes increased in 2017 due to growth in the real estate and building and construction sector. Domestic credit increased by 5.8 percent due to growth in private sector credit reflecting increased lending. In recent years, increased amount of lending has been made to sectors such as agriculture, manufacturing, building and construction, real estate, wholesale and retail.

Figure 1.2: Weighted Average Lending Rates



Source: Reserve Bank of Fiji (2018)

1.6 EXTERNAL SECTOR

On the external front, Fiji's imports have continued to increase more than exports despite the devaluation of the currency in 2009. Over the years from 2008-2013, exports grew at an annual rate of 8.0 percent on average. The trade deficit has continued to widen from 2008-2013 and averaged around $1,943.0 million or 30.1 percent of GDP. In the year to June 2014, the trade deficit has widened by 16.9 percent when compared to the same period last year. During 2013-2014, Fiji's exports increased by nearly 9.8 percent due to strong growth in export of sugar, fish, dalo, and mineral water. However, since 2014, there has been persistent decline in sugar exports. In 2017, there was an increase in the value of sugar and mineral water exports. On other hand, value of gold exports, fish, and garment fell compared to 2016. Over the period 2013-2017, imports have increased significantly. In particular, imports grew at a rate of 7.5 percent compared to 2016. However, exports grew by a marginal level of 0.6 percent over the period 2016-2017. Therefore, recent provisional data suggest existence of wide trade deficit.

Above 3.0 %
Since 2017

1.7 GROWTH OUTLOOK

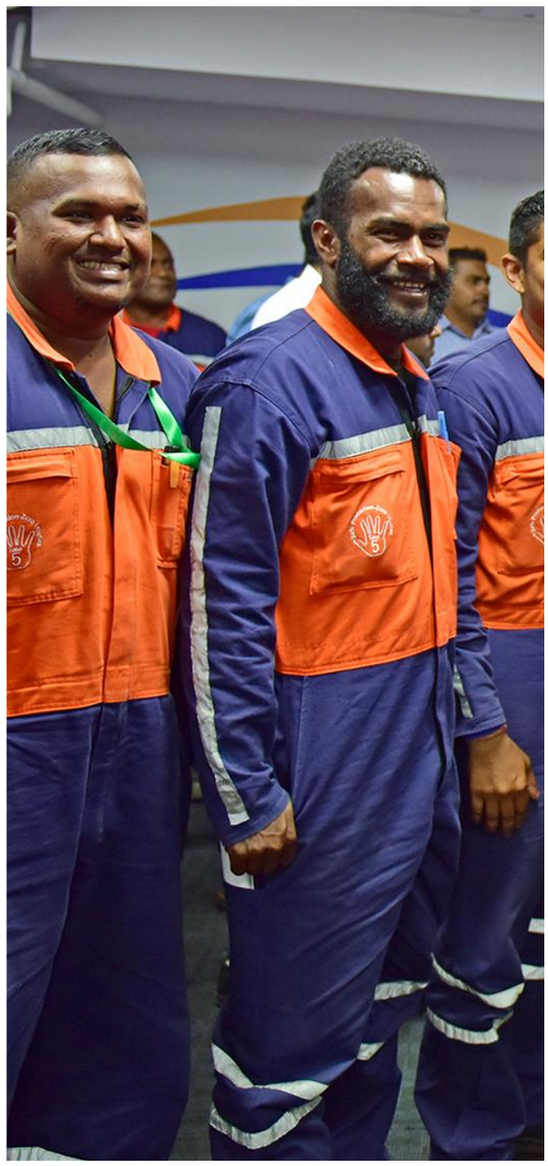
According to International Monetary Fund's Economic Outlook, the global economy is estimated to have grown by 3.7 percent due to better than expected performance of advanced economies such as Germany, Japan, South Korea and the US, some emerging and developing countries such as China. Fiji has experienced growth rate of above 3.0 percent since 2017. Over the period 2013-2017, real GDP in Fiji was in excess of $6 billion dollars. Recent forecast by the Macroeconomic Committee indicates that by 2021, Fiji's real GDP could increase up to nearly $8 billion dollars. The revised projections as at October 2018 indicate that Fiji's economy is forecasted to achieve growth rate of more than 3.0 percent for 2018-2021.

CHAPTER 2

AN OVERVIEW OF FIJI'S LABOUR MARKET SITUATION

2.1 LABOUR MARKET SITUATION

This chapter provides an overview of Fiji's labour market situation and surveys the major trends in key labour market indicators, and in particular examines how employment levels have varied over time and across sectors. We then examine the performance of the labour market using various indicators.




FIJI
AIRWAYS


SFL
fea

2.2 LABOUR MARKET TREND

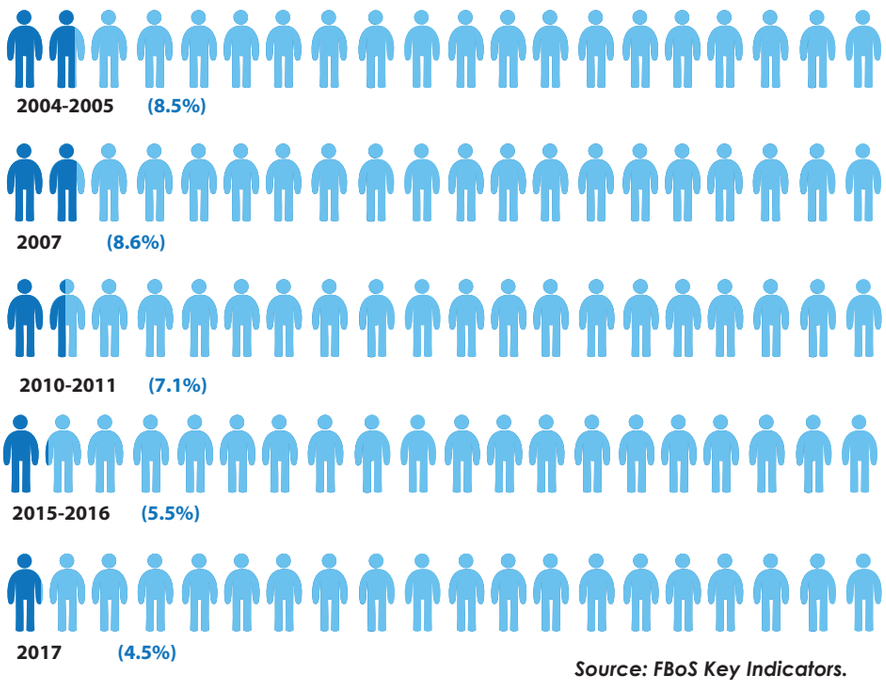
Data from 2007 Census indicated that approximately 40 percent of the population were in the labour force of which 298,974 persons were employed and 28,015 unemployed. Employment according to the two recent censuses and Employment and Unemployment Surveys (EUS) has increased from 286,646 to 298,974 between the census period and from 303,993 to 350,380 between the two EUS.

Table 2.1: Key figures

	2004-2005	2007	2010-2011	2015-2016	2017
Labour force (000)	334,204	326,989	380,583	346,214	356,789
Employment (000)	305,817	298,974	353,460	327,065	340,739
Unemployed (000)	28,387	28,015	27,123	19,149	16,050

Source: Fiji Bureau of Statistics (2018)

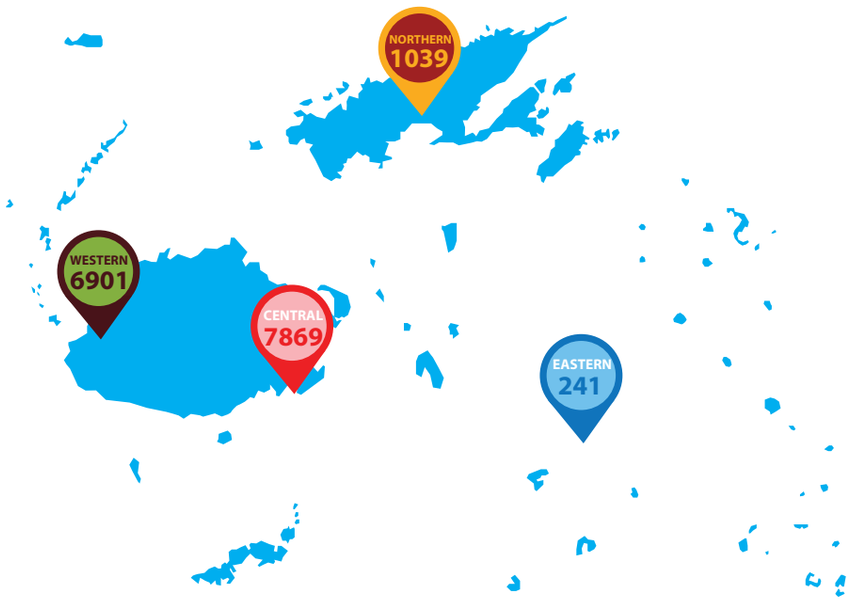
Figure 2: UNEMPLOYMENT RATE (2012-2017)



Source: FBoS Key Indicators.

There has been a declining trend in the unemployment rate due to strong economic performance, fiscal policy and labour market reforms from 2004 - 2017. In particular, the total labour force grew by 6.8 percent to 356,789 and attributed to the employed (11.4% to 340,739) and the unemployed (-43.5% to 16,050) in 2017 compared to the comparable period in 2004. Consequently, the unemployment rate noted a lower 4.5 percent from the 8.5 percent recorded in 2004.

UNEMPLOYMENT BY DIVISION



Source: 2007 Census Data from Fiji Bureau of Statistics

Recent data from 2017 Census also indicated 16,050 were unemployed, with 11,405 unemployed in urban areas and 4,645 unemployed in rural areas. The Central division recorded the highest number of unemployed individuals followed by Western division.

The data indicated that 7,869 individuals were unemployed in Central division. In the Western division, 6901 individuals were unemployed.

In addition, the unemployment rate has been highest in Central and Western divisions. In the rural sector, unemployment rate was estimated to be around 8.4 percent in Central division and 9.3 percent in Western division.

2007 CENSUS
298,974 EMPLOYMENT
LABOUR FORCE 326, 989

2010 - 2011
353,460 EMPLOYMENT

2015 - 2016
327, 065 EMPLOYMENT
LABOUR FORCE 346, 214

2017
340, 739 EMPLOYMENT
LABOUR FORCE 356, 789

DECLINING TREND IN THE UNEMPLOYMENT RATE
4.5 %

STRONG ECONOMIC PERFORMANCE
2004 - 2005 8.5%
2017 4.5%

LABOUR FORCE GREW BY
↑6.8 %

2.3 LABOUR SUPPLY

Table 2.0 gives a snapshot of labour force participation rate based on two censuses (2007, 2017) for different age groups and provides valuable insights on how the labour force participation has changed over the ten-year period. The data suggests that total labour force participation has increased only marginally over the ten-year period. However, more individuals are participating in the labour force and this is true for both rural and urban sectors.

An important observation from Table 2.0 is that labour force participation has increased for majority of the age groups. However, this is not true for younger age groups perhaps indicating more young people choosing to go to school due to supportive government education policies, improvement in public infrastructure, increased demand for skilled and qualified employees, and changing cultural priorities regarding education.

Table 2.0 Labour Force Participation Rate by Sector - 2007 and 2017 Census Data

	Total LFPR		Rural		Urban	
Age Group	2007	2017	2007	2017	2007	2017
10-14	9.5	2.5	11.7	3.5	7	1.7
15 - 19	23.5	19.2	28.8	25.1	18.8	14.9
20 - 24	58.8	57	62.5	64.4	56	53
25 - 29	67.1	71.5	66.4	71.2	67.7	71.7
30 - 34	67.8	73.2	66.8	72	68.6	74
35 - 39	68	73.6	66.7	72.6	69.3	74.2
40 - 44	67.1	72.9	66.3	72.5	67.9	73.1
45 - 49	64.9	70	65.5	69.9	64.3	70.1
50 - 54	59.4	64.4	61.2	66.8	57.7	62.4
55 - 59	50.8	53.6	56	61.6	45.7	47.3
60 - 64	38.2	43.8	46.4	53.6	29.5	36
65 - 69	33.1	33.4	41.2	43.7	23.3	24.9
70 - 74	27.5	23.5	35.4	31.5	17.1	16.2
75+	22.3	13.7	27.3	18.1	16.1	9.6
Total	39.9	40.6	40.3	40.8	39.7	40.6

Source: Key Statistics, Fiji Bureau of Statistics (2018)

Table 3.0 reports the labour force data by division and gender based on 2017 census. The data indicates significant disparity exists across divisions. Data on employment suggests that Central and Western divisions have two largest number of individuals employed.

This statement also holds for males and females. Data on employment suggests that employment numbers are much higher for males in all four divisions compared to females. This indicates that significant policy intervention is required to absorb more women into employment. Data on the unemployed suggests that more females are unemployed compared to males and this is true for all four divisions. Finally, in all four divisions, relatively large number of unemployed females suggest that significant change in attitudes towards role of a woman in the society and policy intervention is required.

Table 3.0 Labor Force by Division and Gender Based on 2017 Census

	Total			Employed		
	Total	Male	Female	Total	Male	Female
Total	625099	315442	309657	341390	234412	106978
Central	268888	133760	135128	144516	94515	50001
Eastern	24140	13041	11099	15579	10839	4740
Northern	89941	46150	43791	51556	37041	14515
Western	242130	122491	119639	129739	92017	37722
	Unemployed			**Outside the Labour Force**		
	Total	Male	Female	Total	Male	Female
Total	16001	7001	9000	267708	74029	193679
Central	7850	3619	4231	116522	35626	80896
Eastern	235	59	176	8326	2143	6183
Northern	1032	364	668	37353	8745	28608
Western	6884	2959	3925	105507	27515	77992

Source: Key Statistics, Fiji Bureau of Statistics (2018)

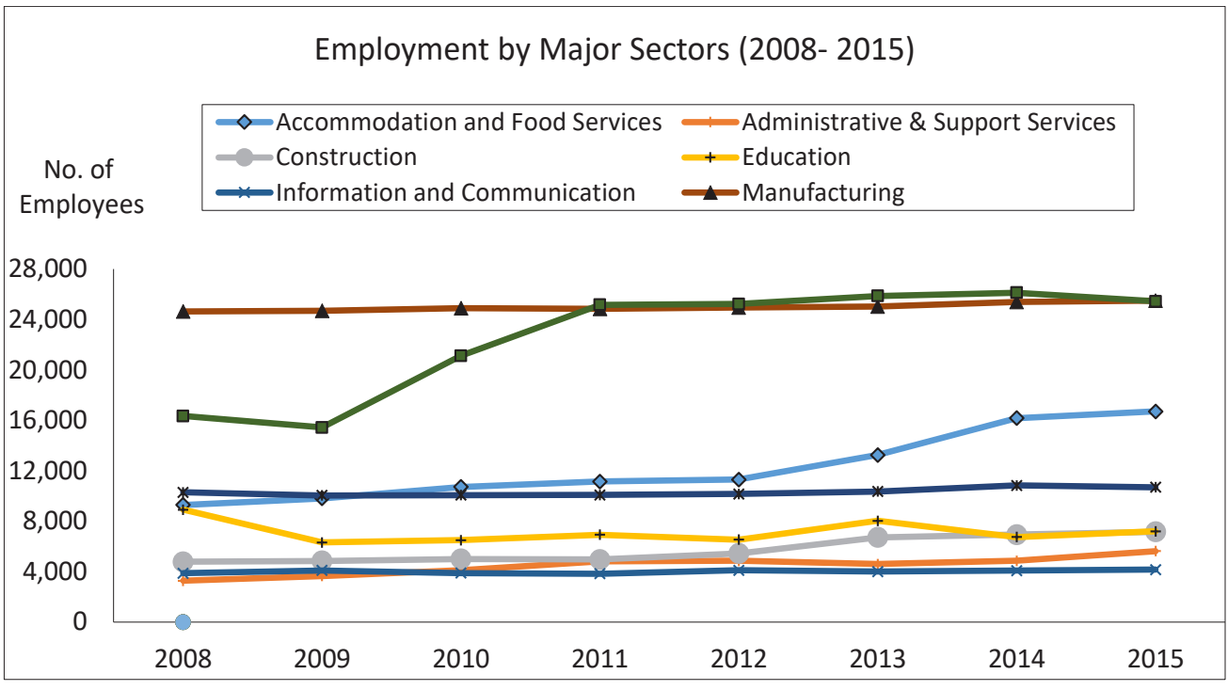
Table 4.0 presents the selected indicators that describe the four important aspects of Fiji's labour market. Fiji's labour force participation rate is close to 60 percent. One of the key observations from Table 4.0 is that female labour force participation rate has declined. A similar observation can also be made regarding employment-to-population ratio. There has been marked decline in the share of agriculture in total employment and little change in the share of industry in total employment. Meanwhile, services sector tends to hold nearly 70 percent share in total employment. Unemployment rate for both males and females fell from 2014 to 2016. On other hand, youth labor force participation rate was close to 40 percent. Youth employment rate fell from 18.1 percent to 15.4 percent. In addition, youth unemployment rate fell for both men and woman over the period 2014 to 2016. These trends are attributed to strong economic performance, supportive fiscal policy, and labour market reforms.

Table 4.0 Selected Indicators on Fiji's Labour Market (2011-2016)

Subject	Indicator	2011	2014	2016
Population and labour force	Labour force participation rate (%)	63.1	58.9	57.6
	Labour force participation rate, men (%)	79.8	75.9	77.0
	Labour force participation rate, women (%)	45.5	41.3	38.6
Employment	Employment-to-population ratio (%)	60.3	55.3	55.1
	Employment-to-population ratio, men (%)	76.4	72.2	74.2
	Employment-to-population ratio, women (%)	43.4	37.8	36.4
	Share of agriculture in total employment (%)	43.2	40.4	19.1
	Share of industry in total employment (%)	14.4	13.1	14.2
	Share of services in total employment (%)	42.5	46.4	66.7
Unemployment and labour underutilization	Unemployment rate (%)	4.4	6.2	4.3
	Unemployment rate, men (%)	4.3	4.9	3.7
	Unemployment rate, women (%)	4.6	8.5	5.5
Youth	Youth labour force participation rate (%)	38.9	38.1	39.4
	Youth labour force participation rate, men (%)	50.2	47.1	51.6
	Youth labour force participation rate, women (%)	26.3	28.4	27.0
	Youth unemployment rate (%)	14.2	18.1	15.4
	Youth unemployment rate, men (%)	12.1	13.9	11.9
	Youth unemployment rate, women (%)	18.4	25.7	22.4

Source: International Labour Organization (2018) & FBoS 2018

Figure 2.1



Source: FBoS - Annual Establishment surveys

Formal employment in manufacturing, wholesale and retail trade, and accommodation and food services is more than in services sectors like education, administrative and support services. Manufacturing is one of the nation's growing sectors and the largest employment sector in the country employing an average of 25,576 from 2008 -2015. This is attributed to investments in manufacture of textiles, garments, footwear, sugar, tobacco, food processing, beverages (including mineral water) and wood based industries.

The second major employment sector is wholesale and retail trade employing more than 20,000 persons since 2008, followed by the accommodation and food services activities. These two sectors have shown an average increase over the past 7 years with the reflection confidence in business.

Other sectors contributing to employment creation included the transport and storage sector averaging around 10,000 in relation to the increasing number of tourists travelling to Fiji, followed by education sector employing more than 7,000 persons on average. Employment in the construction sector was around 4,000 in 2011 but given an increase in major construction activities around the country, employment in this sector increased to 7,000 in 2015.

2.4 LABOUR DEMAND

Labour market indicators such as the FNPF New Compulsory Members indicate new labour market entrants into the formal sector. Data from FNPF indicates declining trend in registration of FNPF's New Compulsory Members from 2008 with the exception of 2010 and 2013, which recorded positive growth. In 2013 there was a significant increase in this segment, indicating an increase in formal sector employment due to employment created through increased capital expenditure of government and the investment projects in the economy.

Another method to analyse labour market performance is to examine the trend in job advertisements. Figure 4.0 depicts the trend RBF's annual job advertisement survey.

The labour market conditions remained favourable in 2015-2017 supported by strong economic activity. In 2016, there was 0.7 percent increase in job advertisement, while in 2017 there was 6.8 percent. In 2018, there was a 4.4 percent increase in job advertisements largely due to higher recruitment intentions in certain sectors.

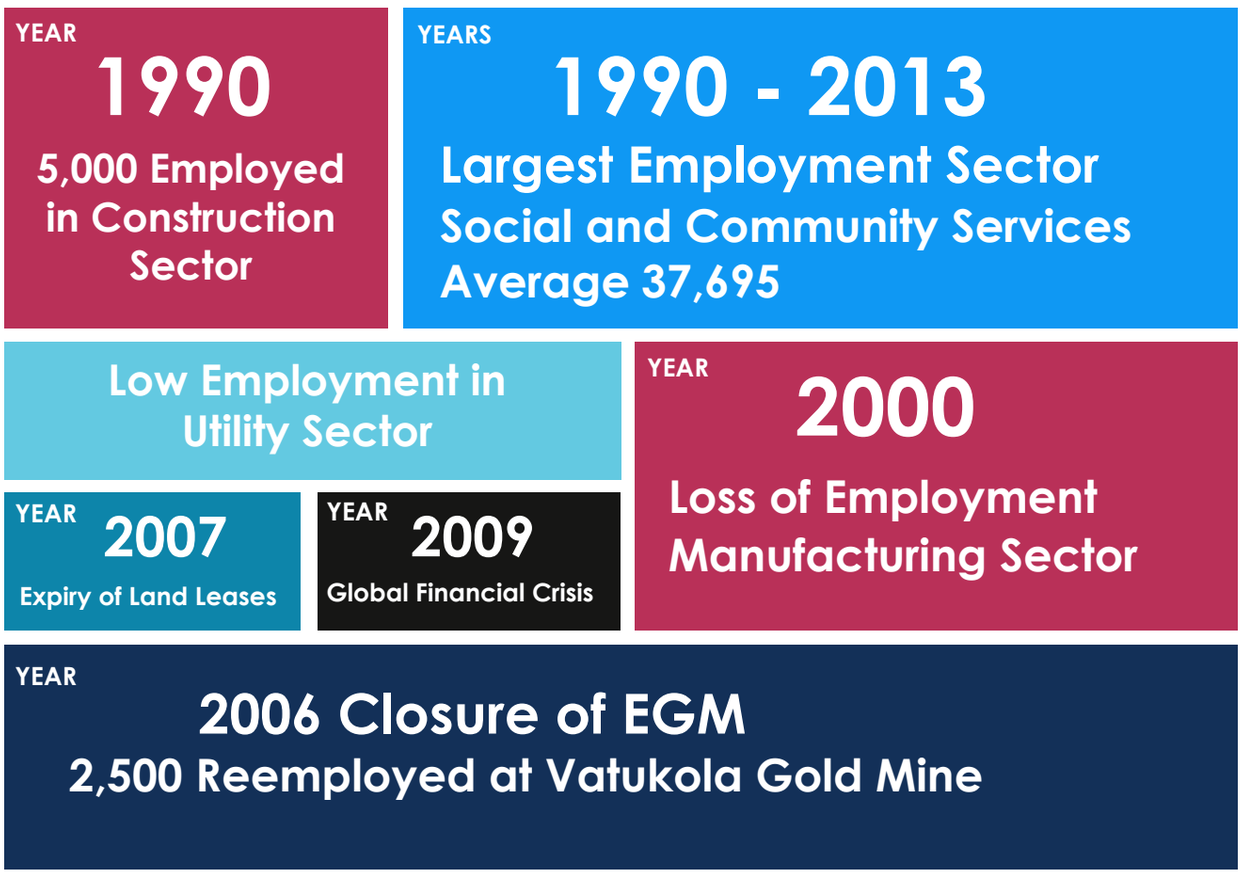
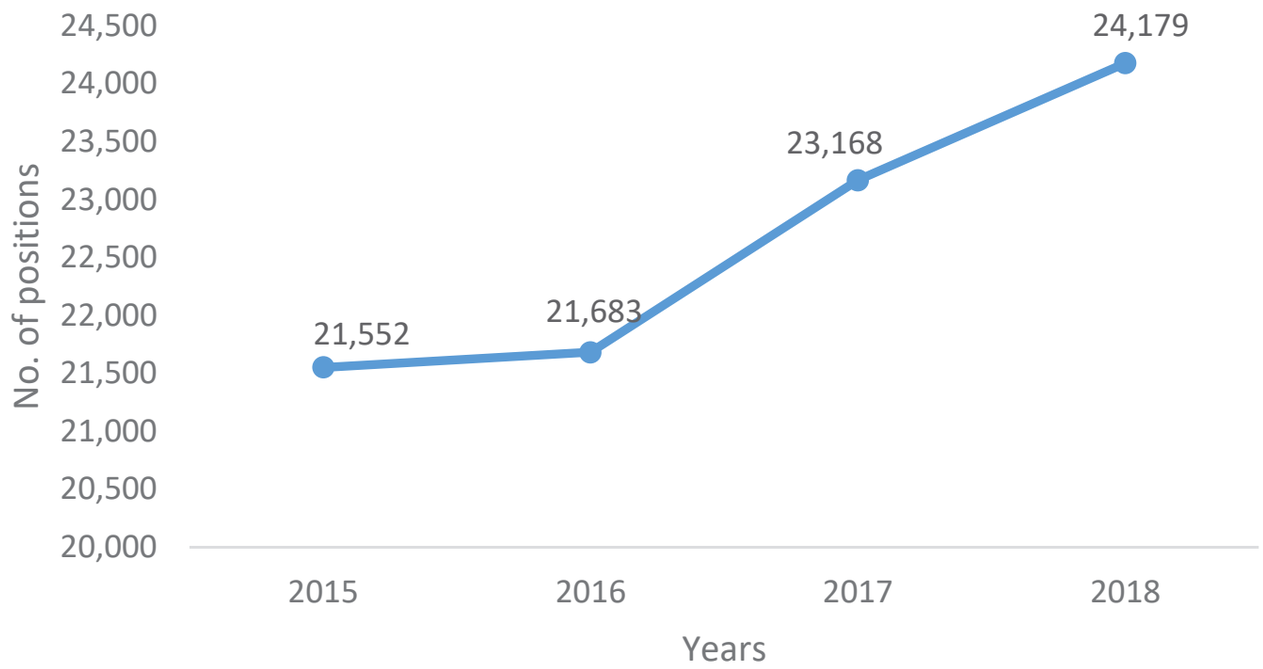


Table 5.0 ***FNPF New Compulsory and Voluntary Member Registration***

Financial Year	New Compulsory Members	% Change	New Voluntary Members	% Change
2008	12530		2701	
2009	10647	-15.0	1762	-34.8
2010	11910	11.9	2217	25.8
2011	11041	-7.3	2726	23.0
2012	10334	-6.4	3458	26.9
2013	13267	28.4	4770	37.9

Source: FNPF

Figure 2.2 Annual Job Advertisements



CHAPTER 3

INTERNATIONAL COMPARISON

3.1 OVERVIEW

This chapter reviews Fiji's labour productivity, capital productivity, and total factor productivity using recently available data from Asian Productivity Organization (APO) together with selected countries. Labour productivity provides insight into how productive the workers have been and this tends to be affected by characteristics of the worker, working environment and government policies. Capital productivity largely informs how well the firms have utilized their existing equipment and machines. This depends on the technical capacity of the firm and also government fiscal policy might affect access for foreign capital goods.

3.2 LABOUR PRODUCTIVITY IN FIJI

Fiji's labour productivity (based on number of employment) grew by approximately 12 percent during the period 2012-2016, strengthened by favourable labour market conditions due to growth in services sector, domestic investment, increased spending on education and public infrastructure. Fiji's labour productivity (based on hours worked) also significantly increased by around 5 percent during the review period. This is supported by the growth in labour demand as firms expand to cater for both local and international demands across various sectors.

Figure 3.1 and 3.2 show the trends in labour productivity based on hours worked and number of employments during the period 2002-2016. Both time series plots suggest that labour productivity has increased over the years. The upward trends indicate Fiji has been successfully utilizing her labour resources more efficiently to produce output during the study period.

Figure 3.1 Labour Productivity of Fiji based on Hours Worked. (Index 2000=1.0)

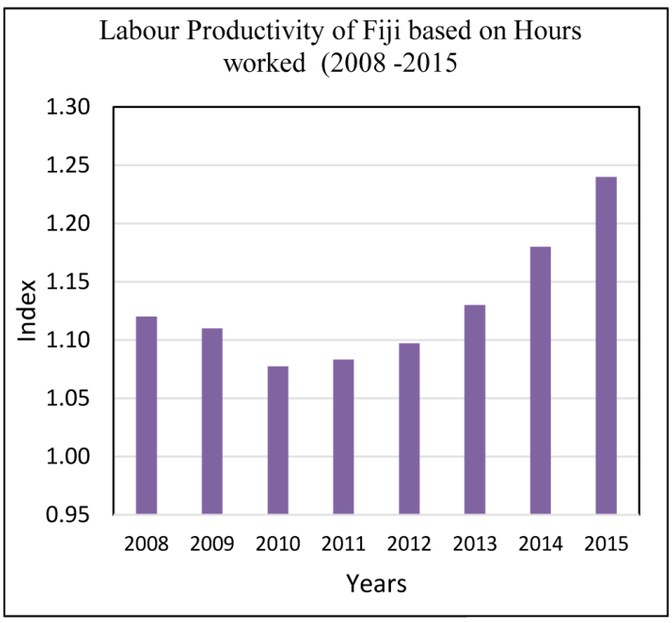
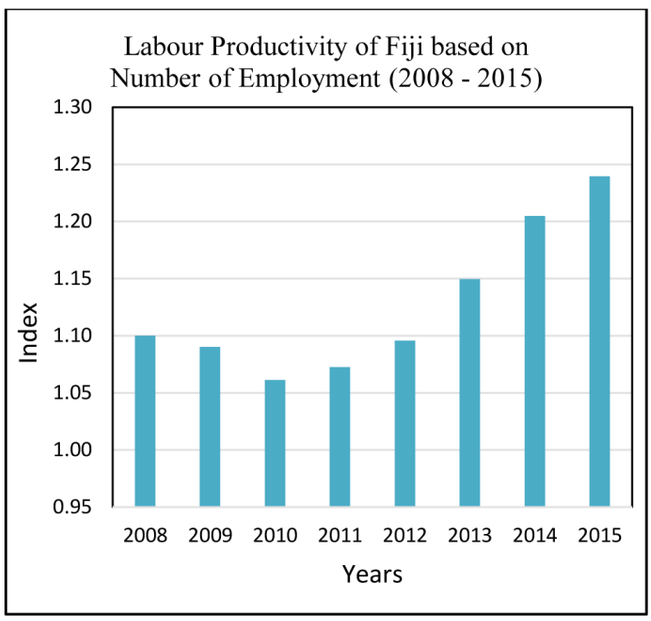


Figure 3.2 Labour Productivity of Fiji based on Number of Employment. (Index 2000=1.0)



Source: Asian Productivity Organization

One of the key observations from both the graphs (Figures 3.1 and 3.2) above was a steady increase in labour productivity after the global financial crisis in 2009. Labour productivity based on hours worked increased by 11.1 percent, while labour productivity based on number of employment increased by 17.2 percent. One major reason for this has been the heavy human capital investment made by the government. The increased support and allocation of resources for Ministry of Education has absorbed more students into the schools and enabled labour to be more productive. Moreover, the increased physical investment in capital infrastructure of the economy has improved labour productivity.

Figure 3.3

Source: Asian Productivity Organization

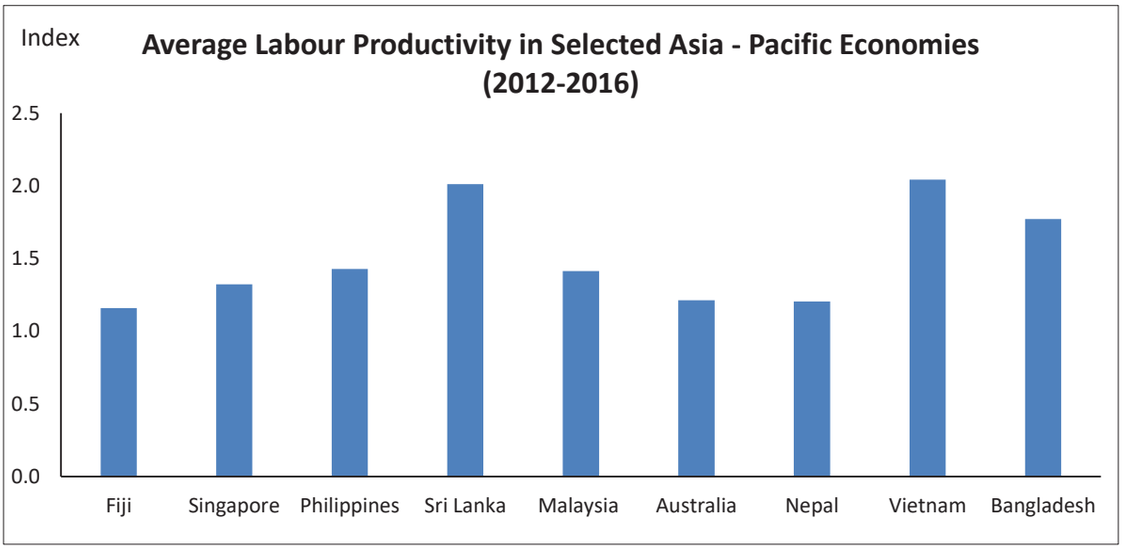
While productivity levels have improved, sustaining the growth in labour productivity remains a challenge for Fiji. As shown in Figure 3.3, growth in labour productivity has fluctuated widely over the period 2002-2016. The average growth rate in labour productivity (based on hours worked) during the period 2003-2016 was around 0.9 percent. On the other hand, average growth rate in labour productivity (based on number of employment) during the period 2003-2016 was around 1.1 percent. A much closer observation of the actual growth rates of labour productivity indicates that there was significant improvement during 2010-2014. Average labour productivity growth during this period was around 2.8 percent, indicating positive influence of the increased government expenditure on education and labour market programs.

It is important to note at the outset that Fiji is a small developing economy and technologically less advanced compared to major economies in the Asian region. Thus, it is important to exercise caution during comparison. A more detailed analysis is required to identify different countries specific

factors that influence productivity. Average labour productivity in Fiji (1.16%) during the period 2012-2016 has been close to Australia (1.21%) and Nepal (1.21%). However, labour productivity still lags behind Singapore (1.32%), Vietnam (2.04%), Bangladesh (1.77%) and Malaysia (1.41%).

The growth rate of labour productivity in Fiji during the past five years (2012-2016) has been much higher compared to Singapore (4.0%) and Australia (4.0%). In comparison, Philippines (17.0%), Sri Lanka (20.0%), Malaysia (11.0%), Vietnam (31.0%) and Bangladesh (18.0%) made significant progress and experienced significant growth in labour productivity.

Figure 3.4

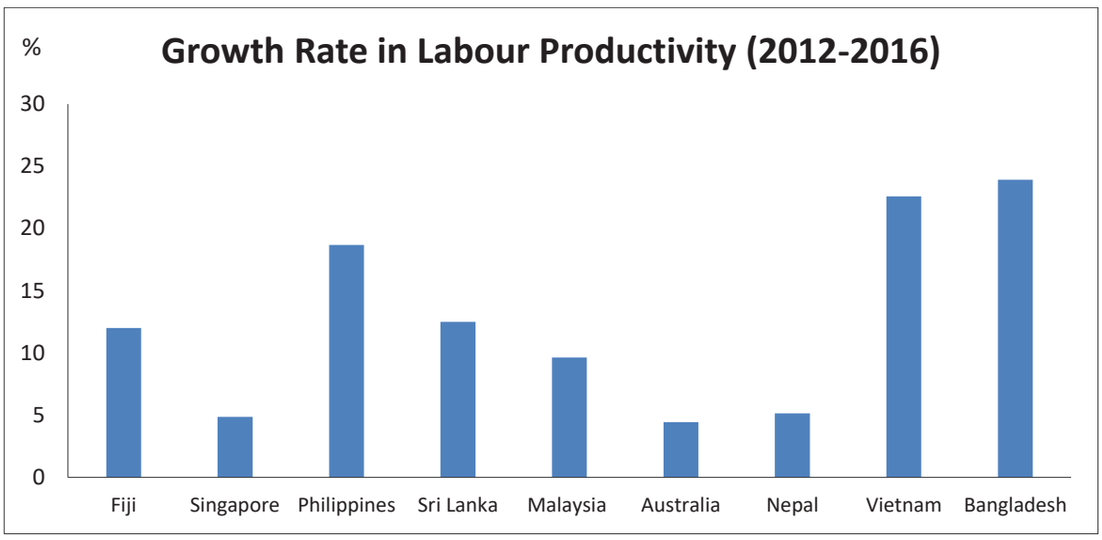


Source: Asian Productivity Organization

3.3 CAPITAL PRODUCTIVITY IN FIJI

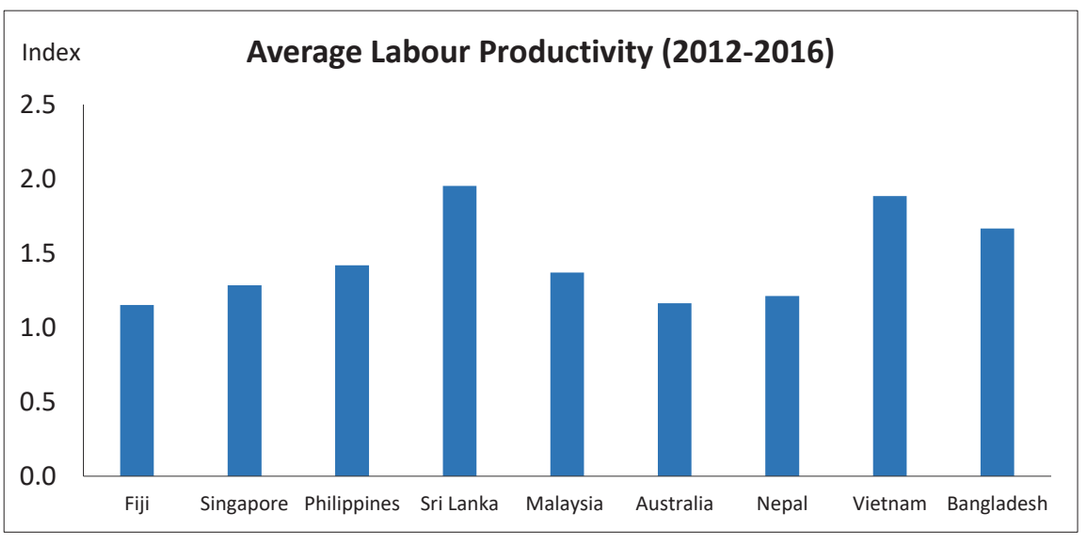
Fiji's capital productivity varied throughout the review period. The slowdown in 2012 illustrates the initial adaptation of capital into the economy trailed by a sharp increase in the 2013. Following the global financial crisis, there has been sharp increase in capital productivity in Fiji. This is not a surprise given that the Fijian government over the past 10 years has made significant investment in human capital through supportive education policies and physical infrastructure. This coupled with labour market reforms and technological advancement boosted capital productivity since 2009.

Figure 3.5



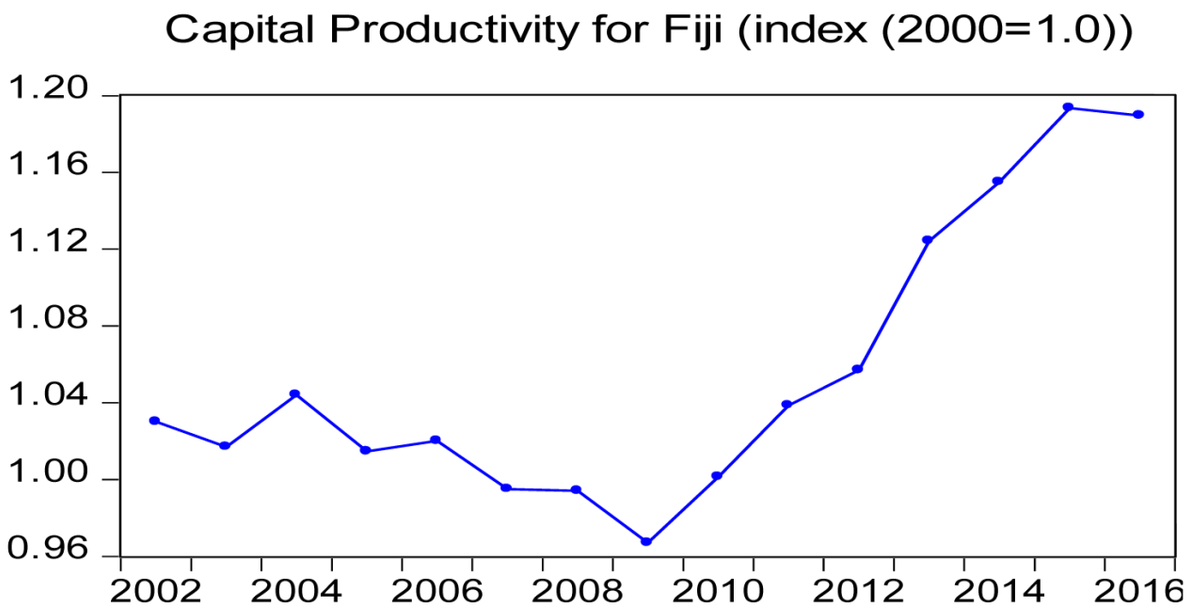
Source: Asian Productivity Organization

Figure 3.6



Source: Author's Calculation based on Asian Productivity Organization
Note: Labor Productivity measured in hours worked

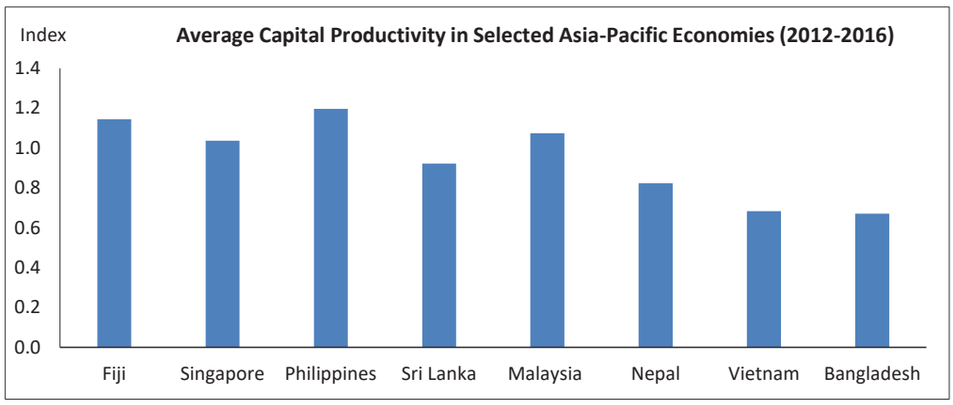
Figure 3.7



Source: Asian Productivity Organization

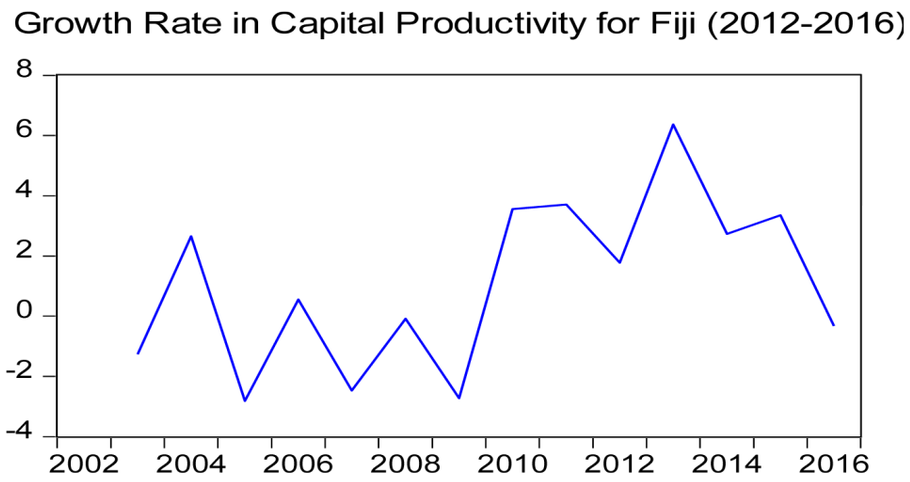
Figure 3.9 illustrates the growth rate in capital productivity for Fiji over the period 2012-2016. The graph indicates that sustaining growth in capital productivity has been a challenge for Fiji. The growth rate of capital productivity was positive during the period 2010-2015 reflecting the impact of increased government expenditure on capital projects. The average capital productivity growth rate during this period was around 3.6. This was much higher compared to average capital productivity growth rate of -0.8 for the period 2004 – 2009.

Figure 3.8



Source: Author's Calculation based on Asian Productivity Organization

Figure 3.9

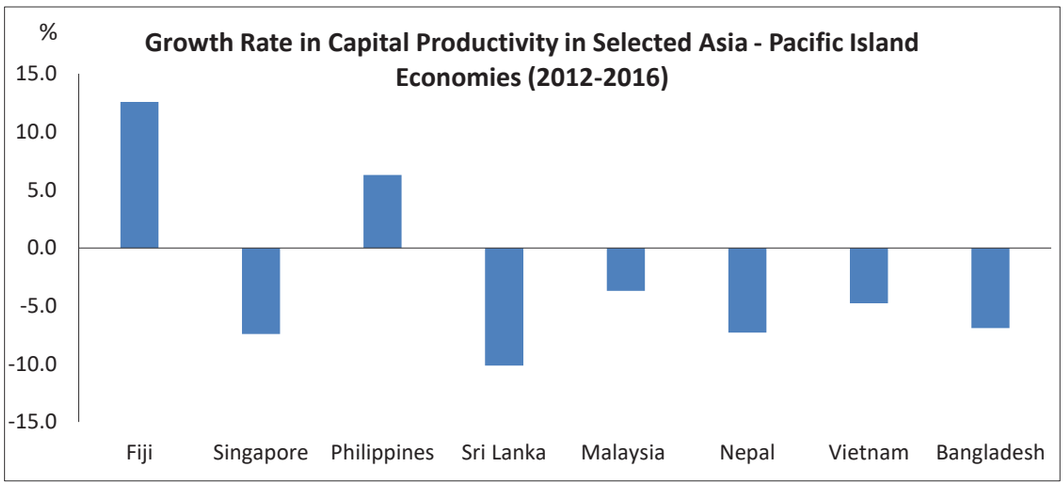


Source: Author's Calculation based on Asian Productivity Organization

Average capital productivity over the past five years in Fiji has been much higher compared to Singapore and Malaysia, Nepal and Vietnam and Bangladesh. Figure 3.8 suggests capital productivity in Fiji was well above majority of developed and developing economies in the Asian region. This again is largely attributed to significant investment in capital infrastructure in recent years.

On the other hand, Figure 3.10 indicates the growth rate in capital productivity in Fiji over the period 2012-2016 was impressive by regional standards. Capital productivity grew by 13 percent over the same period in Fiji owing to significant human and physical capital investments by the government. In contrast, many countries have negative growth rate.

Figure 3.10

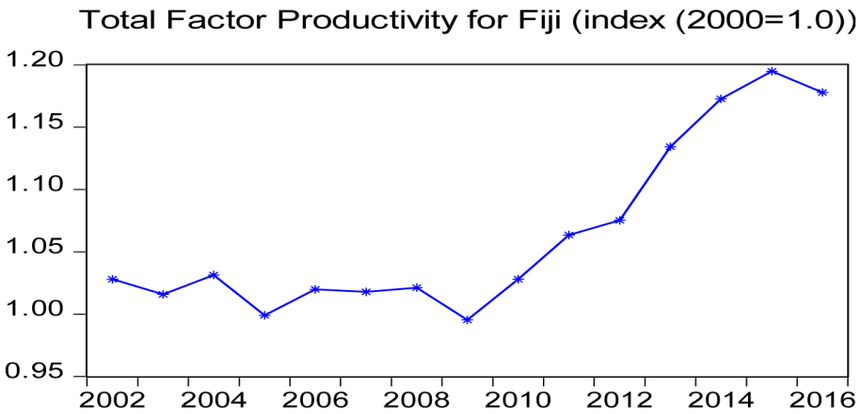


Source: Author's Calculation based on Asian Productivity Organization

3.4 TOTAL FACTOR PRODUCTIVITY IN FIJI (TFP)

During the 5-year period from 2012-2016, Fiji's TFP – which looks at overall productivity, illustrated a steady improvement with an upward trend. TFP was shown to improve to 1.18 from 1.03 mainly as a result of expansionary macroeconomic policies and government reforms across the sectors, both high investment in capital utilization and labour intensity. However, the key challenge for Fiji's economy is to sustain the growth in TFP over the long term to realise the benefits of higher productivity. This requires supportive government reforms at sectoral level, and continued investment in human and physical infrastructure, and stable macroeconomic climate.

Figure 3.11

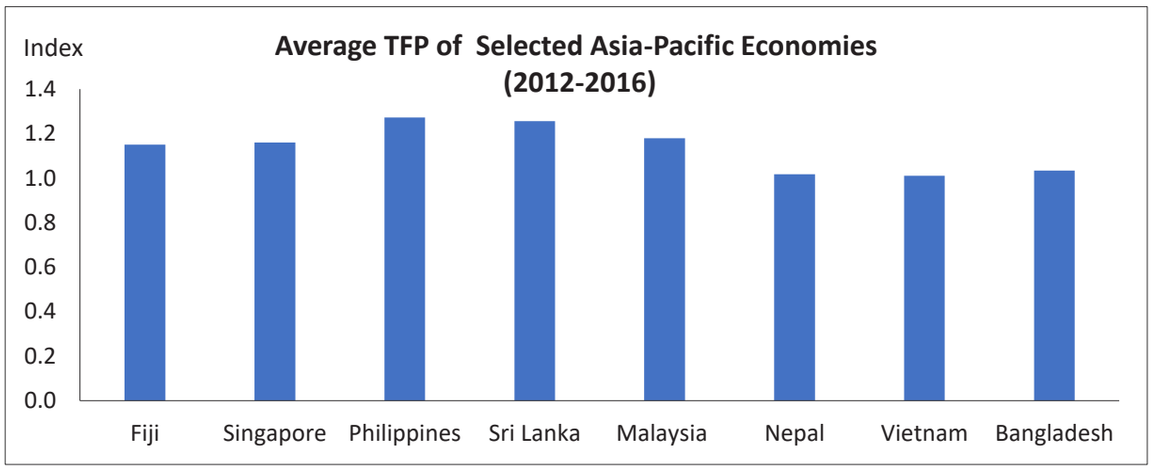


Source: Asian Productivity Organization

3.5 INTERNATIONAL COMPARISON OF TOTAL FACTOR PRODUCTIVITY (TFP) PERFORMANCE

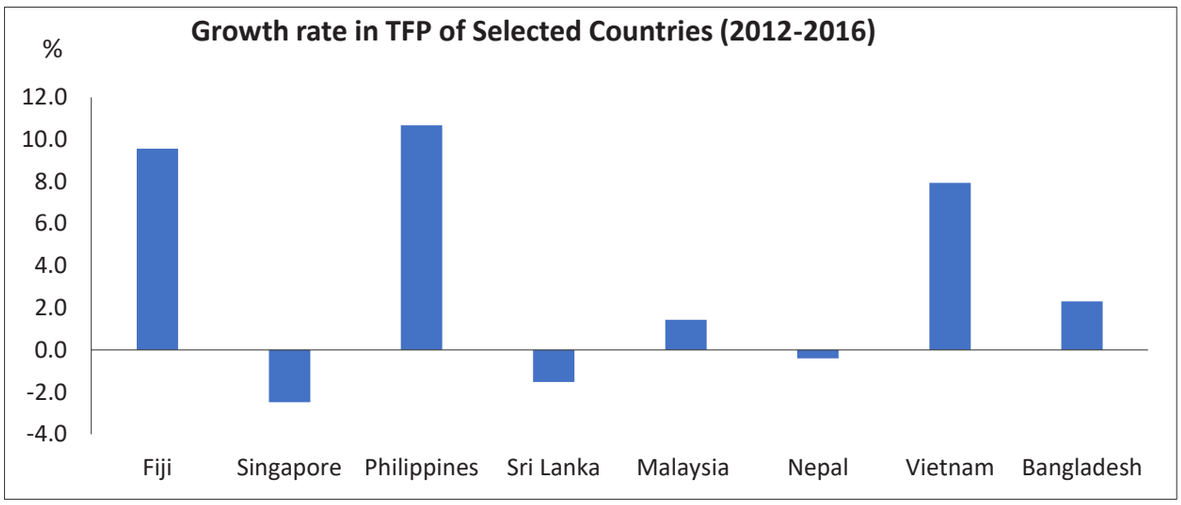
Fiji's TFP growth fares well in comparison to various advanced, emerging market and developing economies, recording a growth of 16.7 percent in the period 2010-2015. This is followed by China (10.4%), Australia (8.4%), Japan (6.3%), Malaysia (3.8%) in contrast to the slowdown in both Singapore (-1.1%) and Nepal (-1.2%). Given the absence of data for other Pacific Island economies, the comparison is only possible with other Asian economies. As shown in Figure 3.12, average TFP in Fiji seems higher compared to other emerging nations such as Nepal, Vietnam and Bangladesh during 2012-2016. During the period 2012-2016, TFP grew by nearly 10 percent in Fiji and was close to growth in TFP in Philippines. In contrast, many countries had a negative growth in TFP over the same period (see Figure 3.13).

Figure 3.12



Source: Author's Calculation based on Asian Productivity Organization

Figure 3.13



Source: Author's Calculation based on Asian Productivity Organization

To further enhance the country's productivity, Fiji needs to benchmark productivity levels with these economies. National and social commitment to ensure efficient utilization of existing resources to improve capital and labour productivity is essential. This calls for continued investment in human and physical capital such as information, communication and technology to ensure sustained increases in TFP over the long term. It is also important for government to look at more than the aggregate TFP and also address sectoral level productivity differences through appropriate policy. The government should adopt technological advances in order to achieve sustained increases in competitiveness. As it will be noted in the later chapters of this report, there are significant differences in productivity across sub-sectoral level and as well as differences in challenges faced by various sectors of the economy.

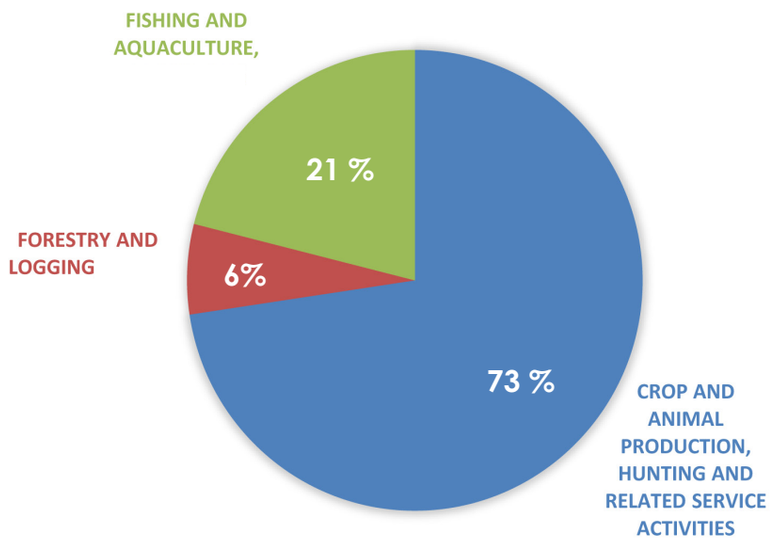
CHAPTER 4

PRODUCTIVITY PERFORMANCE OF THE PRIMARY INDUSTRY

4.1 OVERVIEW

The primary industry consists of 3 major sectors which include Agriculture, Forestry and Fishing. This industry plays an integral part in Fiji's overall development providing food and income security. It also promotes community development in rural areas and is an important source of foreign exchange earnings. The GDP contribution and productivity performance have both declined in the period under review.

Figure 4.0
TOTAL AGRICULTURE, FORESTRY AND FISHING CONTRIBUTION - 2014



Source: Fiji Bureau of Statistics

AGRICULTURE

The Crop and Animal Production sub-sector strives with its vision to influence market forces through vibrant and sustainable agricultural activities that reduce poverty and the risk of food insecurity while positively increasing the contribution to GDP. In achieving its role of maintaining food security, the line ministry has made provisions through its Extension and Research & Development Services for both Livestock and Crops. In addition, it continues the implementation of the Demand Driven Approach Programme (DDA) and other commodity projects to boost economic recovery and resilience.

FORESTRY AND LOGGING

The Department of Forests aims to connect diverse stakeholders and customers in the formulation and implementation of policies that promote best practices (equating conservation and utilization) to ensure a prosperous and enhanced forestry sector. This is driven through coordination, consultation and in partnership with resource owners, communities, the private sector, government agencies, NGOs and Regional and International organizations. The Department ensures that the environment is conducive to

private sector investment and growth, community participation and creating job opportunities which would therefore increase the sectors contribution to GDP.

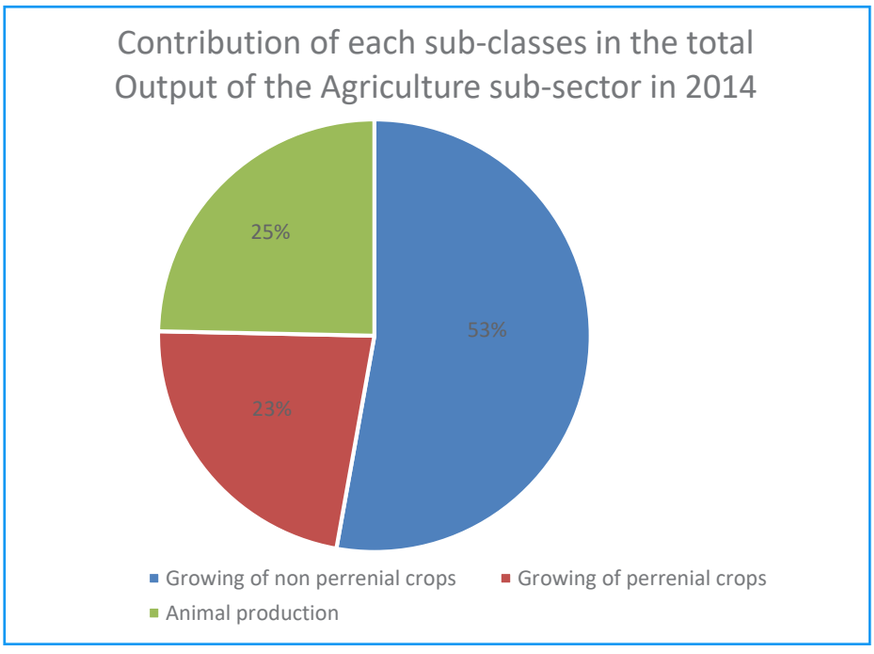
FISHING AND AQUACULTURE

The Department of Fisheries regulates, oversees and undertakes applied research for sustainable fisheries resource management and strategic development. The department also works towards implementing sector trade subsidies, maximising resource rent, improving food security, import substitution and diversification, climate change adaptation and mitigation. Some projects include the Aquaculture, Brackishwater and Seaweed development programmes alongside ongoing construction of multi-species hatcheries and overall food security initiatives.

PERFORMANCE AND CONTRIBUTION TO THE ECONOMY

The agriculture sector is further sub-divided into three groups which are the growing of perennial crops, non-perennial crops and animal production. More specifically, the growing of non-perennial crops remain the largest contributor towards the total output in the sector in the review period.

Figure 4.1



Source: Fiji Bureau of Statistics

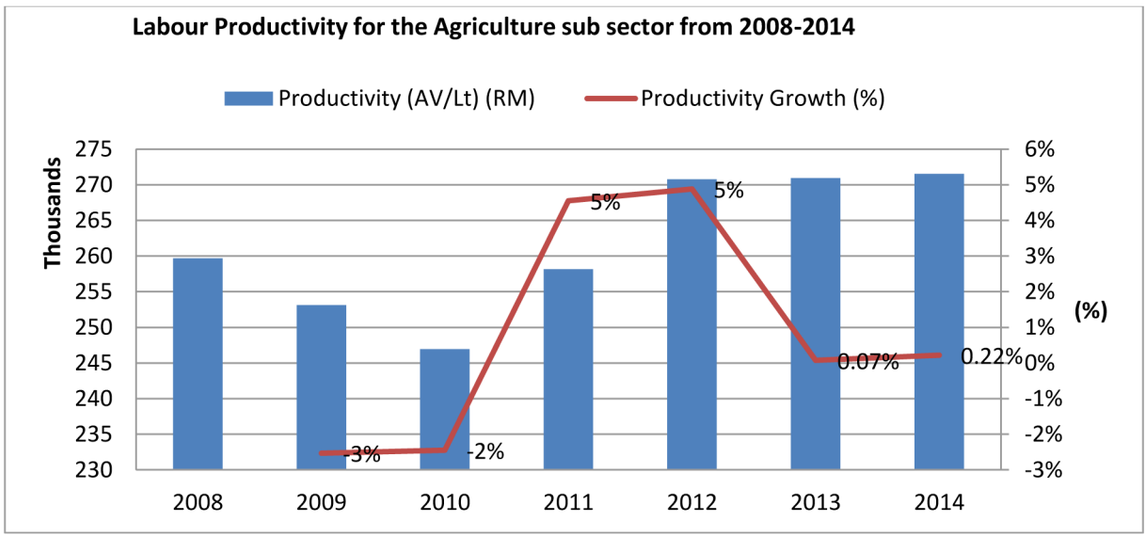
GROWING OF NON-PERENNIAL CROPS

The growing of non-perennial crops comprises cereals, rice, vegetables and melons. In the review period, growing of non-perennial crops has contributed approximately 50 percent towards the overall output of the primary industry which was relatively positive in spite of its seasonality nature. In terms of value addition, growth in the non-perennial farming was largely strengthened by significant contributions from sugarcane (18.03%), taro (11.93%), and cassava (8.21%), while marginal contributions were noted for the other non-perennials.

4.2 PRODUCTIVITY PERFORMANCE

The Agriculture sector is fundamentally labour intensive; therefore the analysis solely focuses on labour productivity. In the period under review, labour productivity has shown an upward trend due to infrastructure improvements and reform policies. This was positively supported by animal production which more than offset the decline noted for perennial and non-perennial crop farming.

Figure 4.2



LABOUR COST COMPETIVENESS

The Labour Cost per Employee (LCPE) in the agriculture sector recorded positive growth from 2009 followed by sudden drop in 2013, due to lower number of employees recorded within this period.

In terms of the sub-sectoral level, LCPE is largely strengthened by the growing of non-perennial crops which shows a similar trend.

Figure 4.3

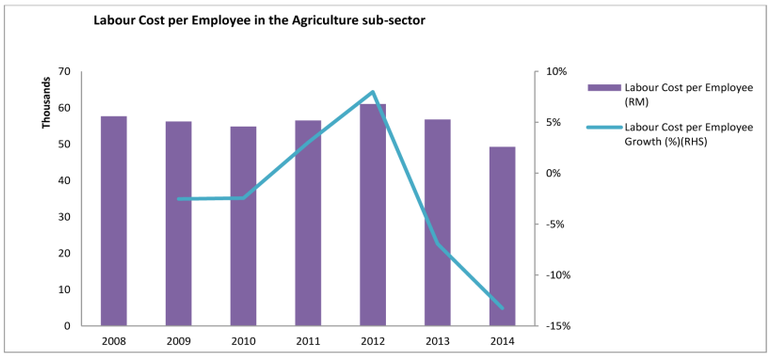
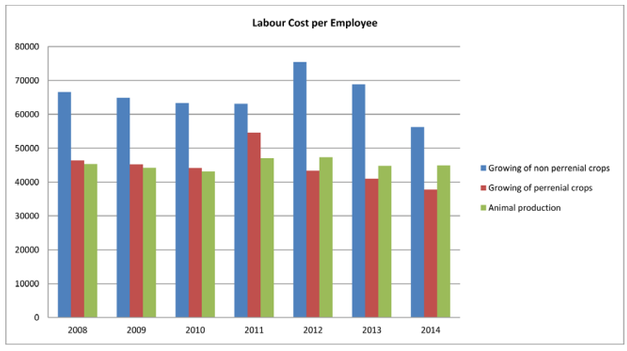


Figure 4.4



4.3 CONCLUDING REMARKS

Challenges

The agricultural sector faces various challenges that impede its productivity growth prospects. These include inadequate infrastructure, farming land lease issues, lack of skilled and specialised labour, invasive species, high input costs and natural disasters. Therefore, policy intervention needs to be formulated to address these concerns.

Policy Recommendation

In summary, some existing policy reforms outlined in the agriculture policy include building a modern agricultural system in producing, processing, and marketing of crops, livestock and aquaculture products, developing integrated support systems, enhancing capabilities to generate funding and secure investments, and advancing implementation of understandings with partner institutions.

CHAPTER 5

PRODUCTIVITY PERFORMANCE OF THE MANUFACTURING SECTOR

5.1 OVERVIEW

The manufacturing sector is the largest contributor to GDP consisting of the manufacture of food and non-food products. The strength of the manufacturing sector lies in the resource availability, supporting infrastructure, fiscal policies and financial sector. The manufacturing sector in Fiji has 16 sub sectors; the sector employed approximately 25400 workers in 2014. The manufacturing sector's contribution to Gross Domestic Product was 12.3 percent in 2017. An estimated 79 percent of the sectors total primary activity is for local consumption and 21 percent is for exports. The Secondary activity includes imports of manufacturing products sold in local markets. The empirical analysis indicates that the manufacturing sector's productivity grew at an average rate of 5 percent between 2009 – 2014. However, labour cost per employee increased at 4 percent for the same period while the capital productivity grew at an average of 2 percent during the 5-year period.

This chapter will focus on 5 sub sectors ranked on the basis of added value data.

01 Manufacture of food beverages and tobacco products

02 Manufacture of wearing apparel

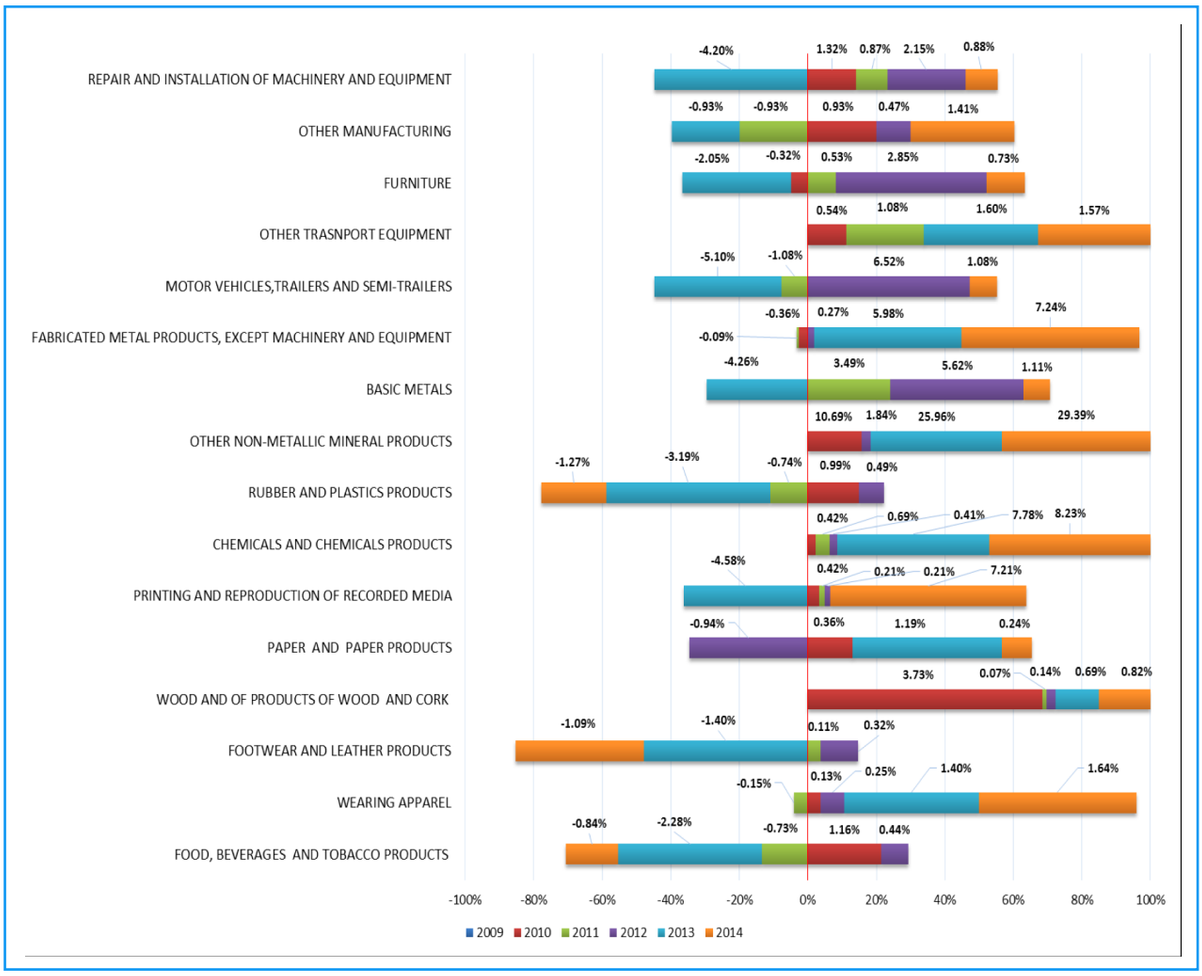
03 Manufacture of chemical and chemical products

04 Manufacture of wood and of products of wood and cork

05 Manufacture of fabricated metal products, except machinery and equipment


jack's

Figure 5.0: Employment Growth of the 16 Sub sectors from 2009-2014



In the five-year period, employment in the manufacturing sector grew by 2.9 percent. This moderate growth is a result of slow growth in labour demand in certain subsectors. The sub sectors that showed a decline in employment growth was Food and Beverages, Footwear and Leather products, Rubber and Plastic products. The Sub sectors that showed strong growth in labour employment were Non-Metallic Mineral Products, Wood and Wood Products, Chemicals and Chemical Products, Fabricated Metal Products except Machinery and Equipment, and Basic Metals.

The manufacturing sector recorded average -value added growth during the five-year period as follows: Food and Beverages, Wearing Apparel, Chemical and Chemical Products, Wood and Products of Wood, Fabricated Metal Products except Machinery and Equipment. The value-added contribution by each subsector has been almost evenly distributed. This means that all sectors on average contributed to the value added.

Figure 5.1: Added Value Growth of Manufacturing Sub sectors

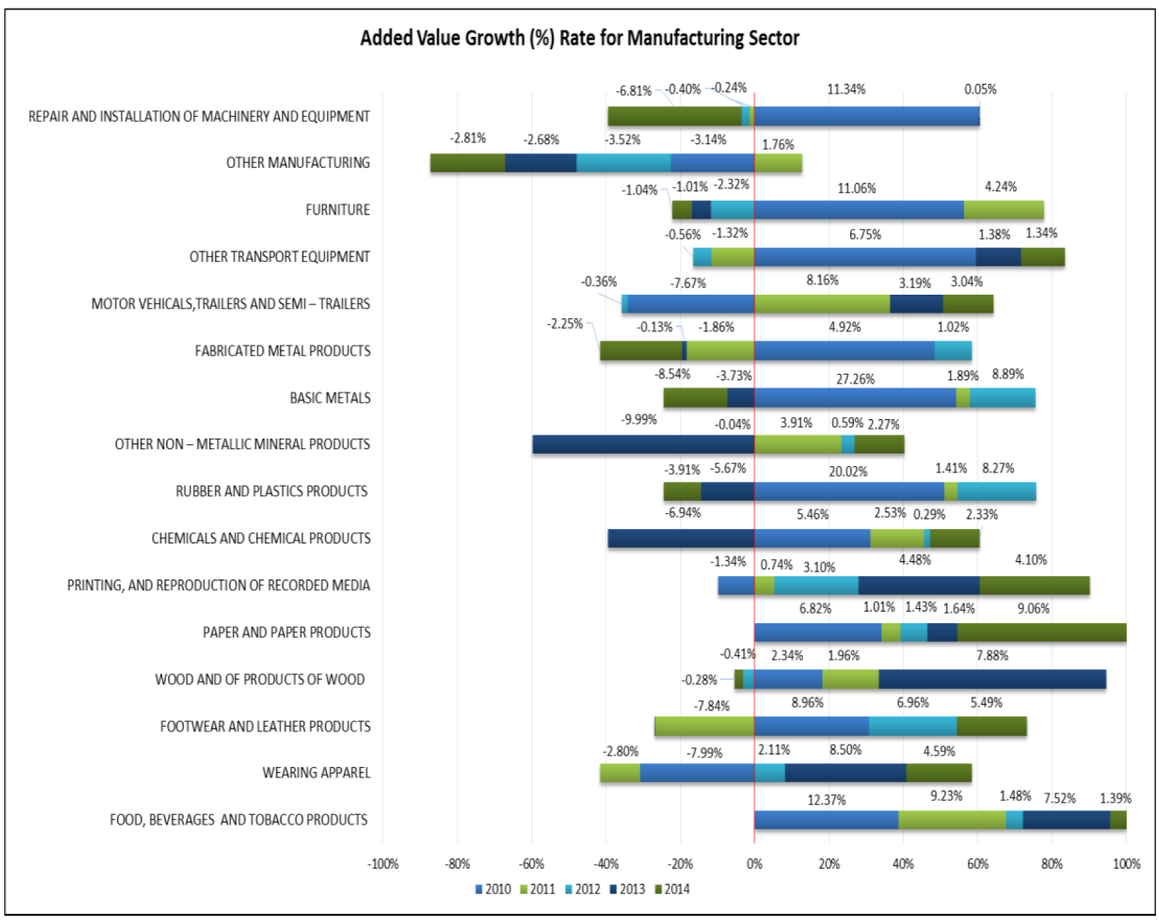
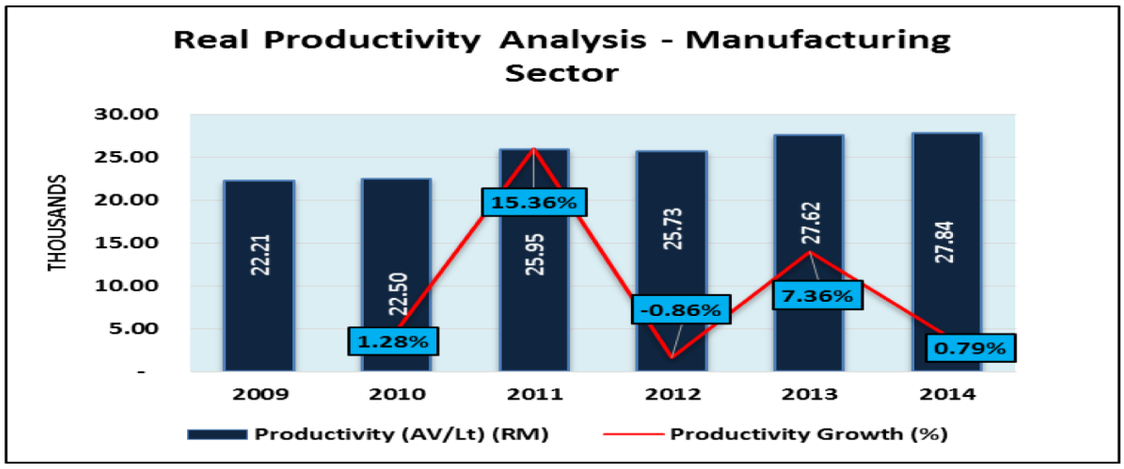


Figure 5.2 Manufacturing Sector – Real Output



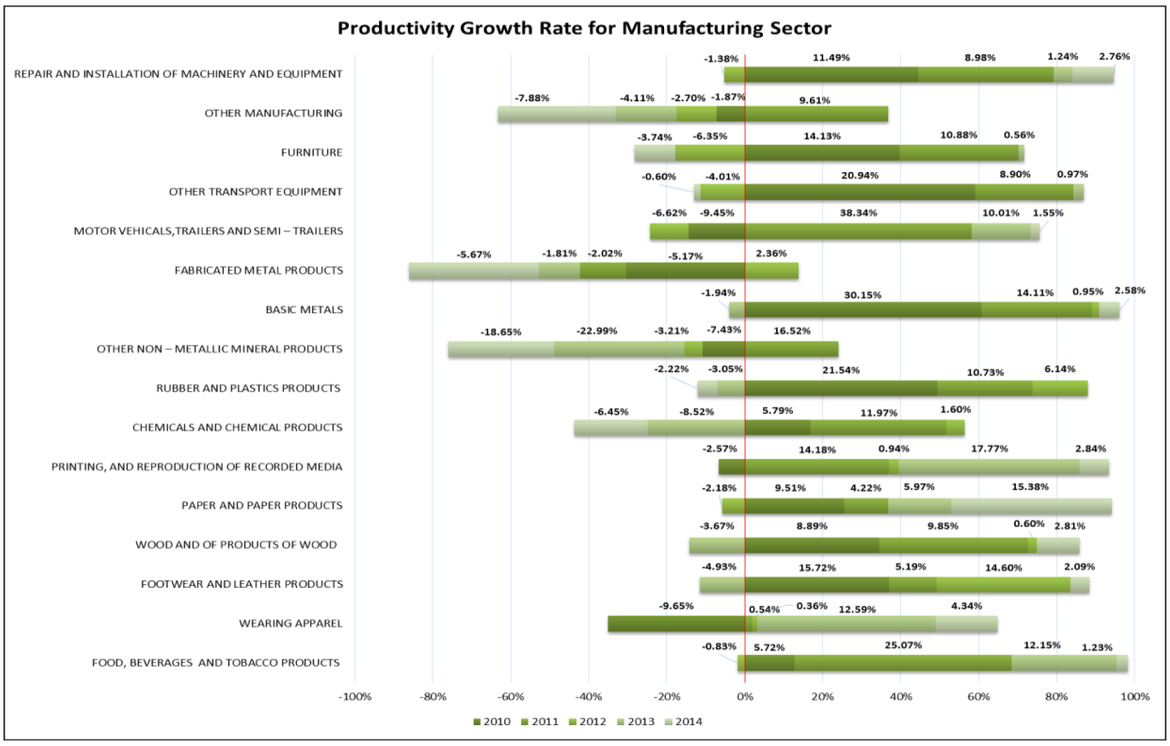
5.2 PRODUCTIVITY PERFORMANCE

The manufacturing sector has been a driving factor in the growth of productivity in Fiji. The ease of doing business in Fiji and the overseas demand for local products through effective promotions such as "Buy Fiji Made" continues to attract investors in potential areas such as Non-Metallic Mineral Water, Pure Fiji Cosmetics, Wearing Apparel, and Chemicals and Metals.

The five leading sub sectors in manufacturing are Manufacturing of Food, Beverage and Tobacco, manufacture of Wearing Apparel, manufacture of Chemical and Chemical Products, manufacture of Wood and Wood Products, and manufacture of Fabricated Metal Products. It should be noted that manufacturing of Chemicals and Chemical Products recorded the highest value added on average over the past five years.

Eight sub sectors that performed above manufacturing average of 5 percent in terms of productivity were Basic Metals (9.17%), Food and Beverages (9%), manufacture of Footwear and Leather Products (6.53%), Paper and Paper Products (6.58%), Printing and Production of Recorded Media (6.63%), manufacture of Rubber and Plastic Products (6.63%), Motor Vehicles and Trailers (6.77%), and manufacture of other Transport Equipments (5.24%). The lowest performing productivity sector is the manufacture of Non-metallic Mineral Products, where productivity drastically fell in the years 2013 and 2014 perhaps due to change in government tax policies.

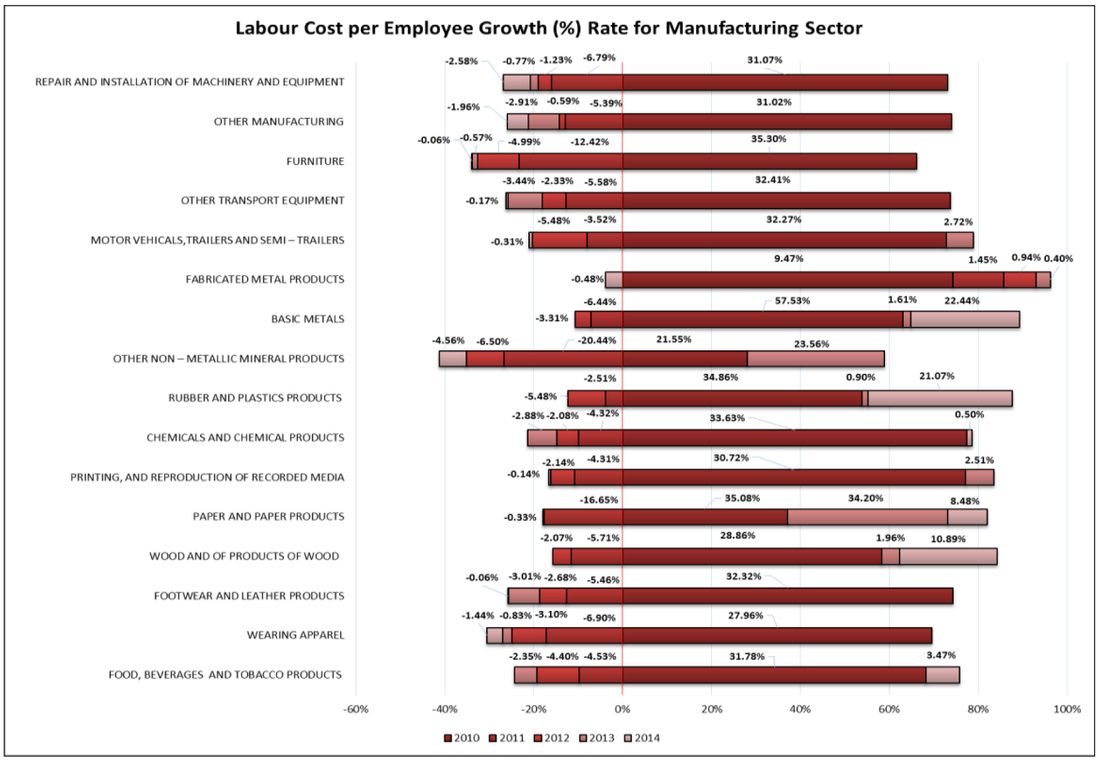
Figure 5.3: Productivity growth of Manufacturing sub –sectors



Labour remuneration as indicated by labour cost per employee in the manufacturing sector showed a fluctuating trend in the 5-year period. In 2010, the remuneration was at 29.65 percent and contracting to -6.38 percent in 2011 then showing an upward trend of -3.51percent in 2012 and ending with growing by 2.76 percent in 2014. The average remuneration growth was 4 percent. The years 2012 onward saw an increase in remuneration in most sub sectors.

The sub sectors that showed above manufacturing sector remuneration growth rate were manufacture of Food and Beverages, manufacture of Footwear and Leather Products, manufacture of Wood and Wood Products, manufacture of Paper and Paper Products, Printing and Reproduction of Recorded Media, manufacture of Chemical and Chemical Products, manufacture of Rubber and Plastic Products, Basic Metals, Motor Vehicles, Transport and Equipment, and other manufacturing.

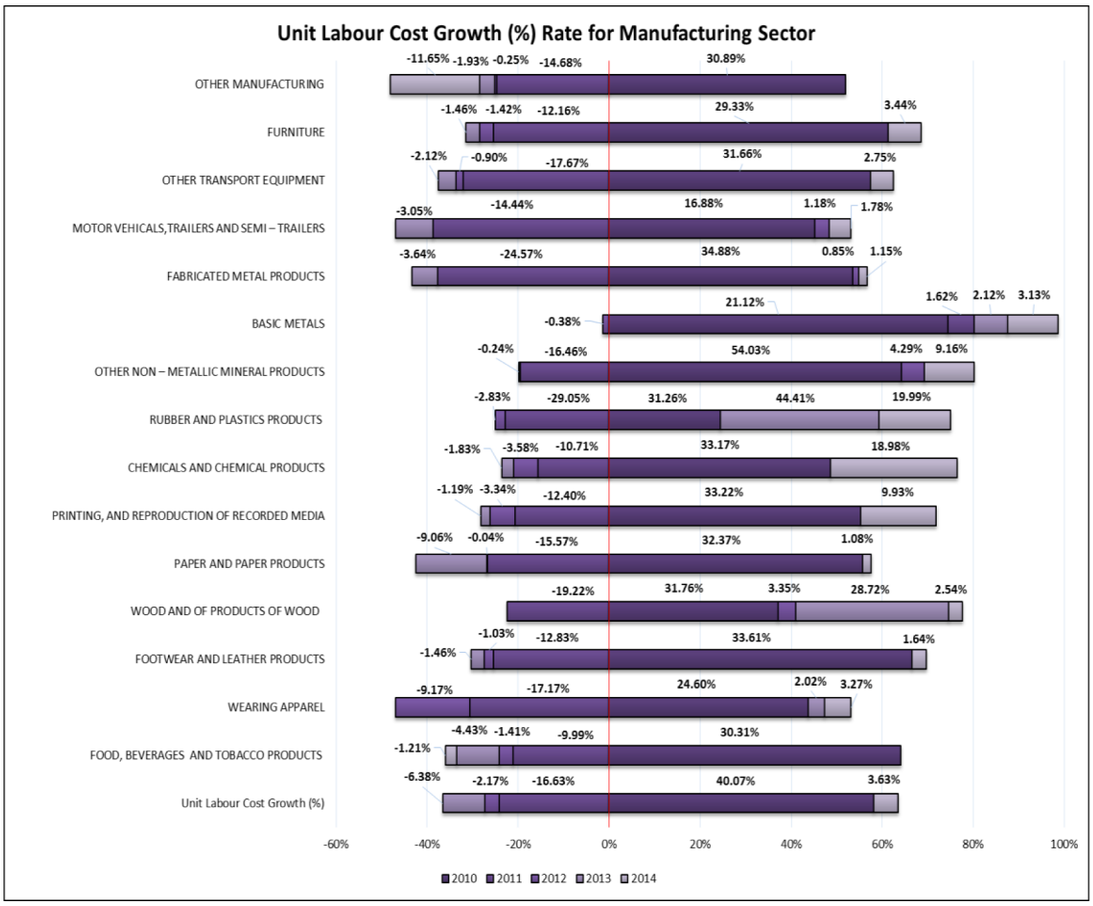
Figure 5.4: Labour Cost Per Employee



In the five-year period, the manufacturing sector was competitive in terms of labour as the cost per employee was 4 percent which was lower than the labour productivity of 5 percent with unit cost per labour staying at a minimum of 2 percent.

The sub sectors that achieved high labour competitiveness were Food and Beverages, Foot Wear, Printing and Production of Printed Media, Motor Vehicles and Trailers, Transport and Equipment, Repairs and Installation.

Figure 5.5: Unit Labour Cost Growth



These sectors were able to strengthen their labour cost competitiveness reflected in their higher productive growth at a lower labour cost per employee resulting in lower unit cost per labour. This can be achieved through increased efficiency in labour and technology, automation and proper management of labour and production materials.

Figure 5.6: Capital Intensity Growth of Manufacturing sectors.

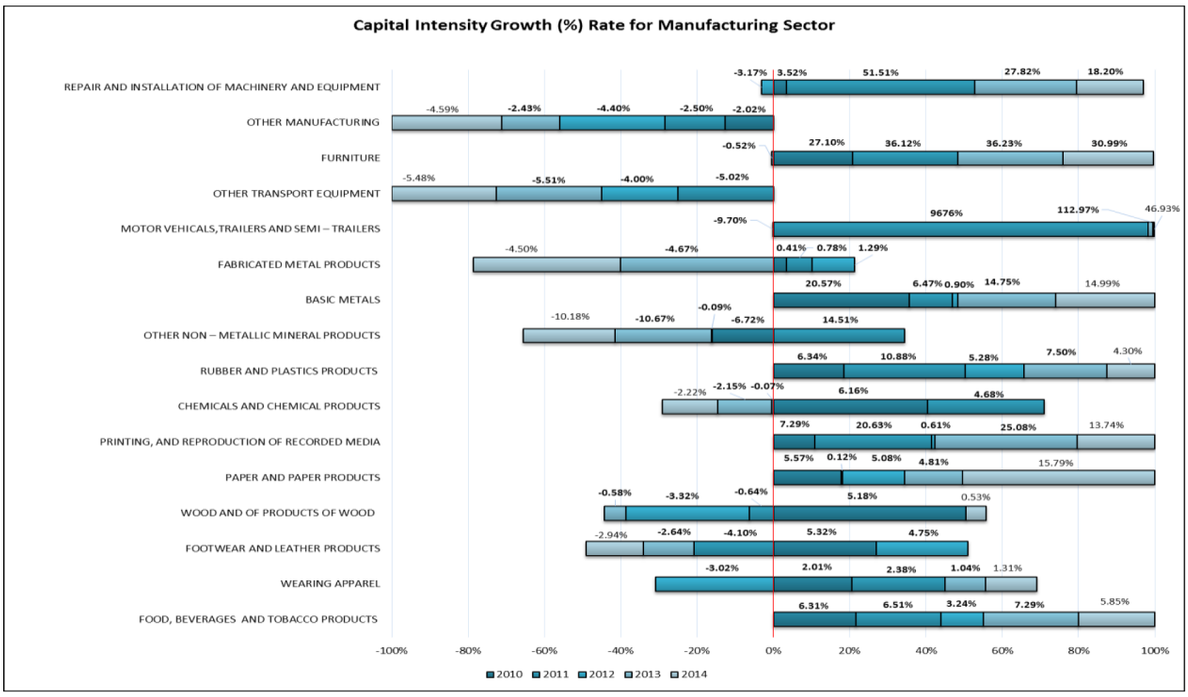
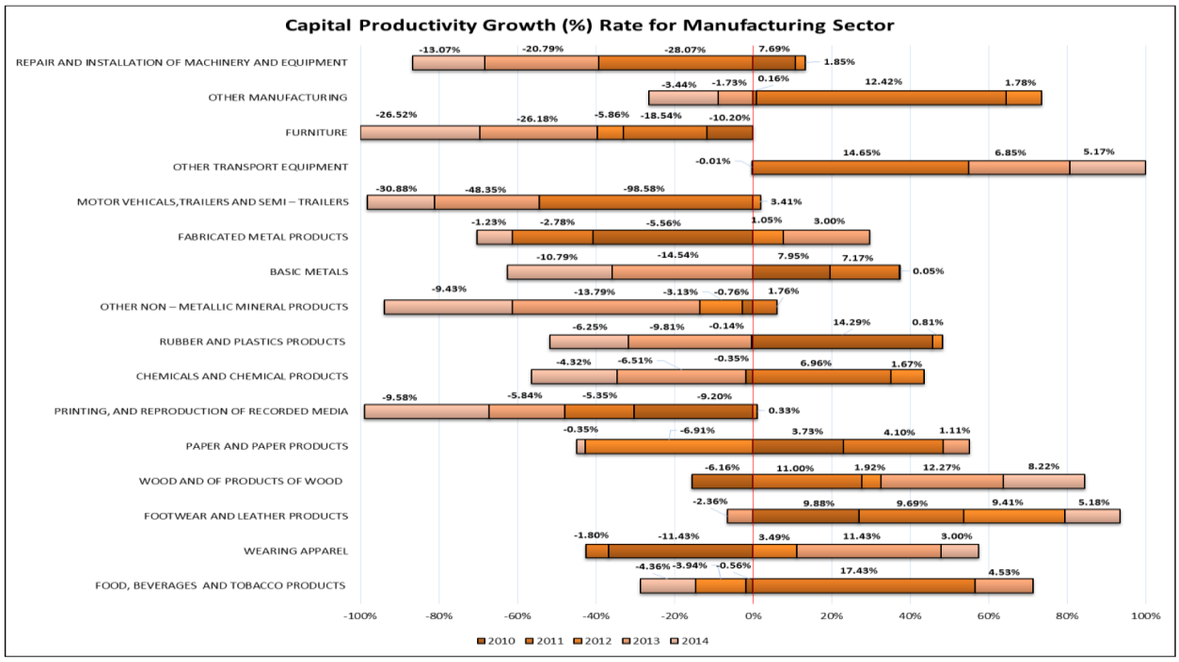


Figure 5.7: Capital productivity growth



The overall capital productivity average growth for the five-year period was 2 percent which is relatively very minimal. This means that many sub sectors used the same capital to increase production and meet product demands. The sub sectors that showed higher capital productivity growth were manufacturing of other transport equipment (5.33%), manufacture of wood and wood products (5%), footwear and leather products (6.36%), and food, beverage and tobacco (3%). The overall capital intensity growth was 3 percent with notably high growth rate in sub sectors such as repairs and installation of machinery, manufacture of furniture, manufacture of motor vehicles and trailers, manufacture of basic metals, printing and production of recorded media.

5.3 TOP 5 SUB SECTORS DETAILED ANALYSIS

5.3.1 Sub sector 1: Manufacturing of food, beverages and tobacco.

Labour Productivity

The labour productivity growth declined from 12.15 percent in 2013 to 1.23 percent in 2014 although the level figures showed an increased trend over the years. The labour cost per employee increased in the period 2013 to 2014 by 3.47 percent. There seems to be a gradual decline in the real labour cost per employee for the Food Beverages and Tobacco Product Sector. A gradual decline in the real unit labour cost is noted for this sector starting 2010. The manufacturing sector was not labour competitive in the year 2013 -2014.

Figure 5.8 a-f

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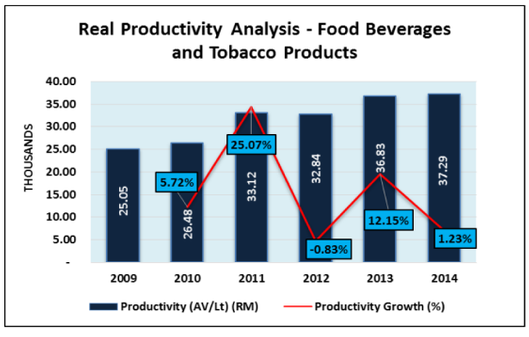

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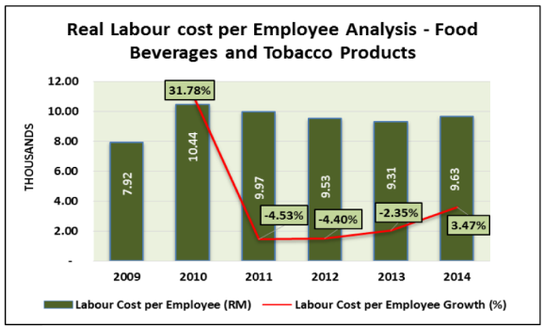

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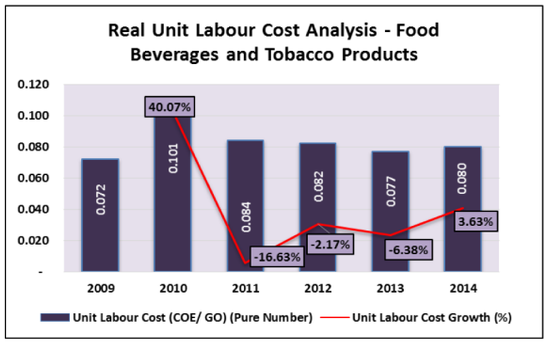

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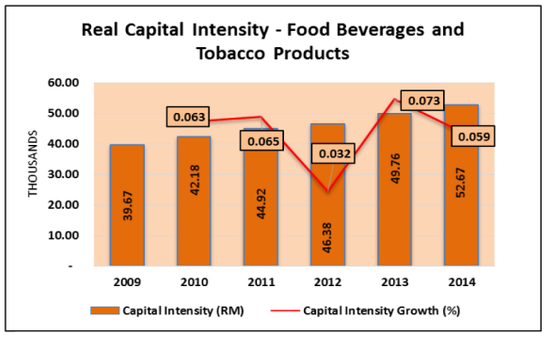

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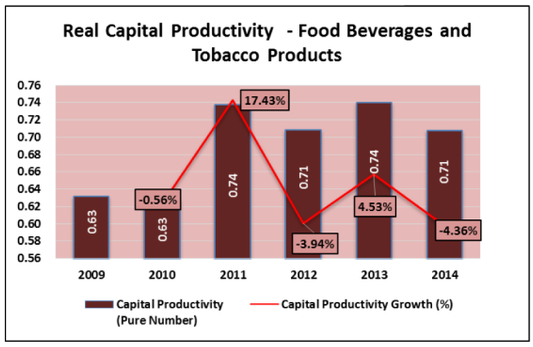

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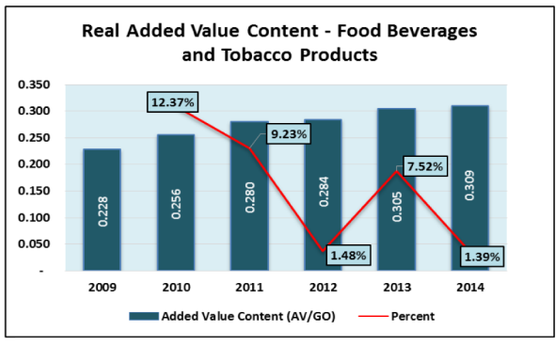

CAPITAL PRODUCTIVITY

The real capital productivity decreased from 4.53 percent in 2013 to -4.36 percent in 2014. The decrease in capital productivity can be specifically linked to the decline in capital intensity which also declined from 0.073 in 2013 to 0.059 in 2014. This can be due to production of those goods that were labour intensive or inefficient use of existing capital and lack of use of modern cheap technology.

An important observation from this analysis is real capital intensity and real capital productivity. These showed more volatile trend compared to labour-based analysis. The value added has shown a general slowdown over the period although the level figures have constantly increased, this means that for every unit of output value added increased at a declining rate. This can be related to declining capital productivity

5.3.2 SUB SECTOR 2: MANUFACTURING OF WEARING APPAREL.

Labour productivity and competitiveness

The labour productivity growth in the Manufacturing of Wearing Apparel declined from 12.59 percent in 2013 to 4.34 percent in 2014 although the level figures noted an increase since 2010. The labour cost per employee decreased in the period 2013 to 2014 by -1.44 percent and this was lower than the productivity growth. The unit labour cost showed a decreasing trend which is a positive development. The analysis suggests that wearing apparel sector was labour competitive during the period 2009-2014.

Figure 5.9 a-d

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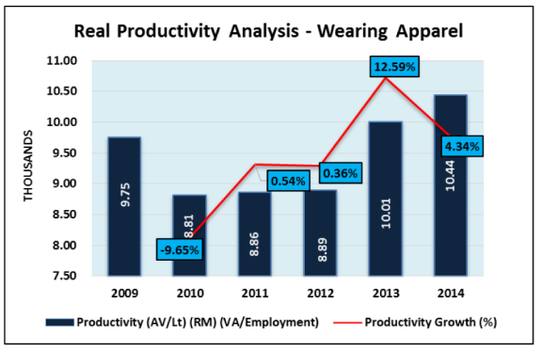

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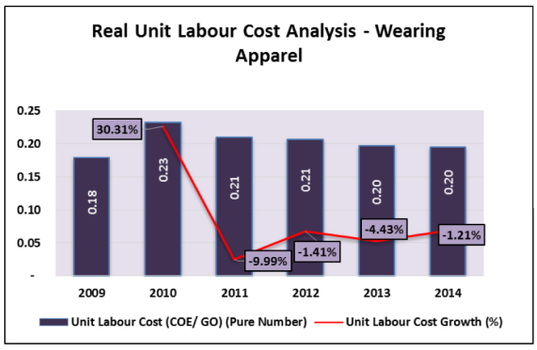

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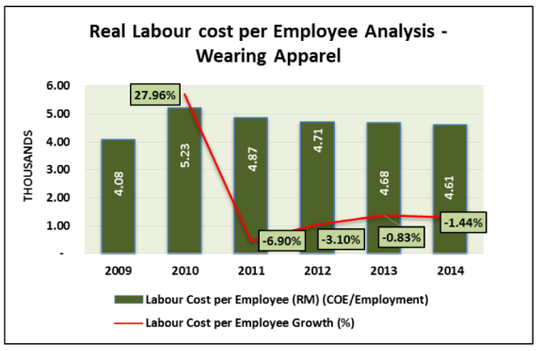

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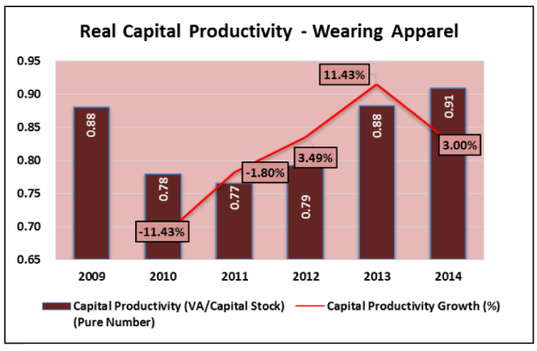

CAPITAL PRODUCTIVITY

The real capital productivity growth decreased from 11.43 percent in 2013 to 3 percent in 2014. The decrease in capital productivity in 2014 can be attributed to inefficient use of existing machinery; on the contrary capital intensity showed a slight increase. We can also note a volatile trend during the period 2009-2014. The added value has shown a growth in 2014 and a declining growth trend although the level figures have constantly increased. The increase in level figures is due to the government 40 percent export income deduction initiative, and allocation of marketing grant to textile clothing and footwear council to drive demand and grow employment. These fiscal incentives by the government seem to have supported growth of the Wearing Apparel sector in Fiji since 2010.

Figure 5.10 a-b

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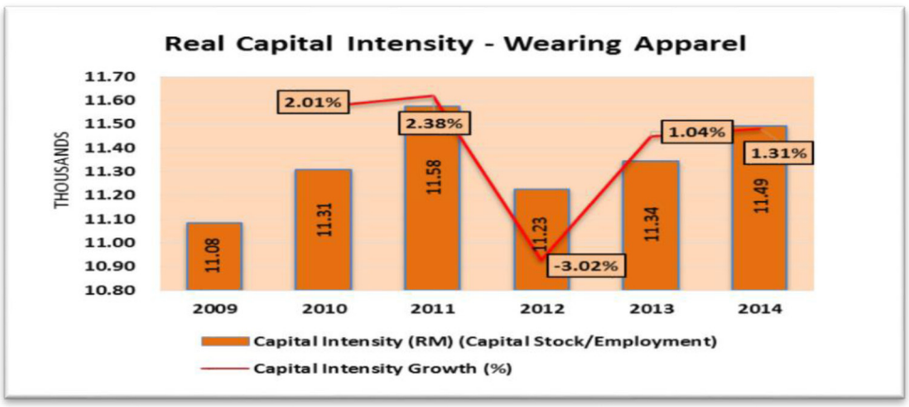

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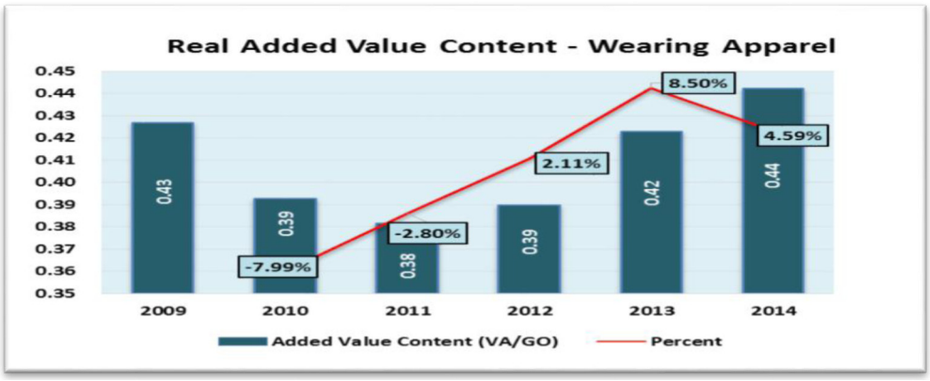

5.3.3 SUB SECTOR 3: MANUFACTURE OF CHEMICALS AND CHEMICAL PRODUCTS

Labour productivity and competitiveness

The labour productivity growth in the manufacture of Chemicals and Chemical Products sector increased from -8.52 percent in 2013 to -6.45 percent in 2014 although the level figures declined during 2009-2014. The labour cost per employee increased by 0.5 percent in the period 2013 to 2014. This was higher than the productivity growth; the unit labour cost increased over time of this sector. In fact, real unit labour cost and real labour cost per employee did not change significantly in 2010. The manufacture of Chemicals and Chemical Products sector was not labour competitive during the period 2009-2014.

Figure 5.11 a-d

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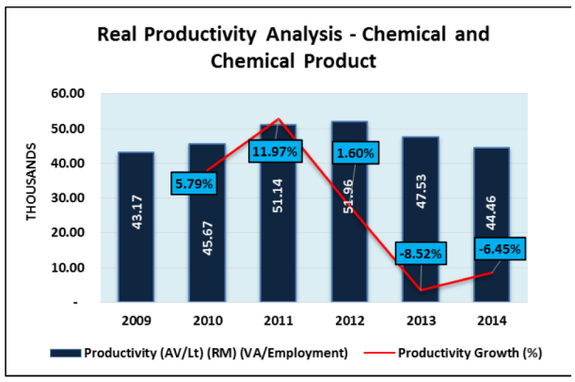

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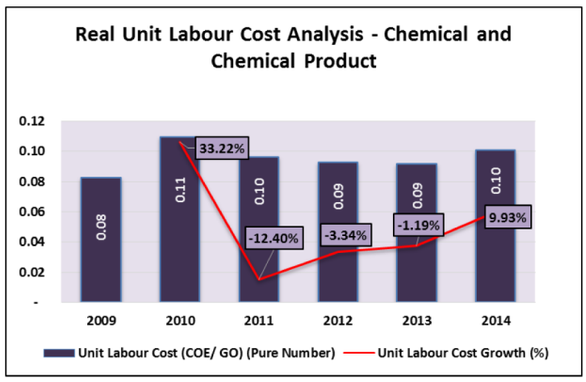

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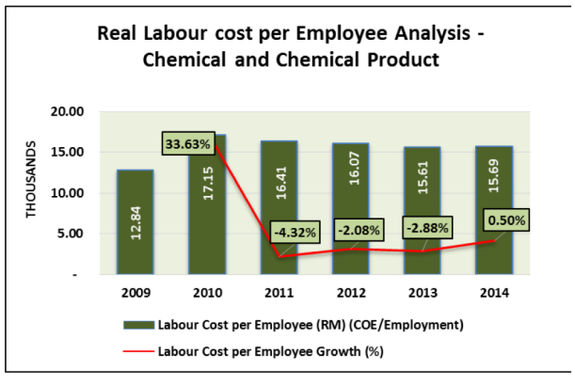

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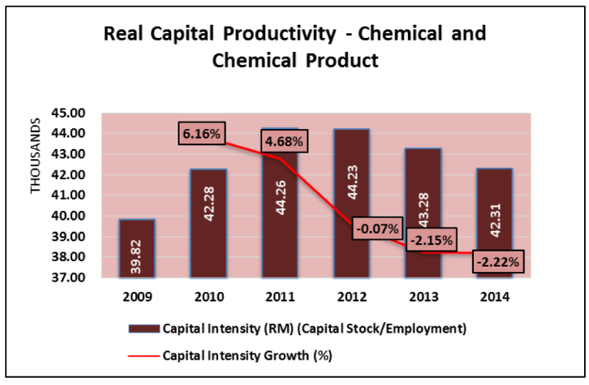

CAPITAL PRODUCTIVITY

The real capital productivity growth in the manufacture of Chemicals and Chemical Products sector decreased from -2.15 percent in 2013 to -2.22 percent in 2014. The decrease in capital productivity growth in 2014 can be attributed to inefficient use existing equipment or production of products that needed less capital input as capital intensity also slightly decreased. The added value has shown growth trend in 2014, and the level figures have also increased. However, real added value in levels showed a volatile trend during the period 2009-2014.

Figure 5.12 a-b

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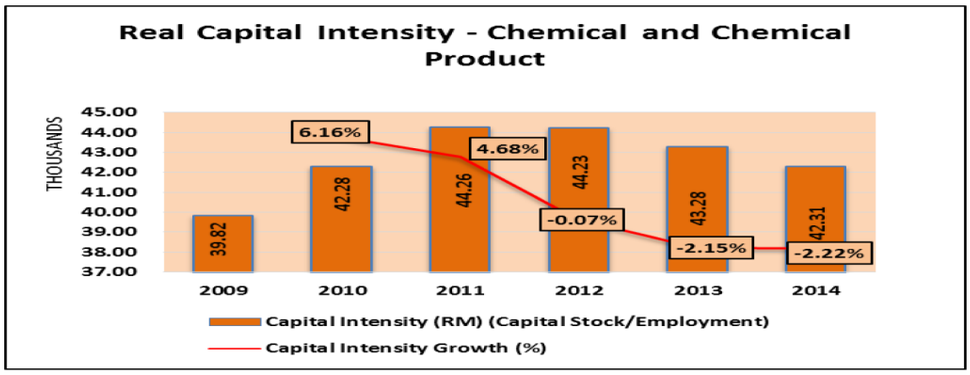

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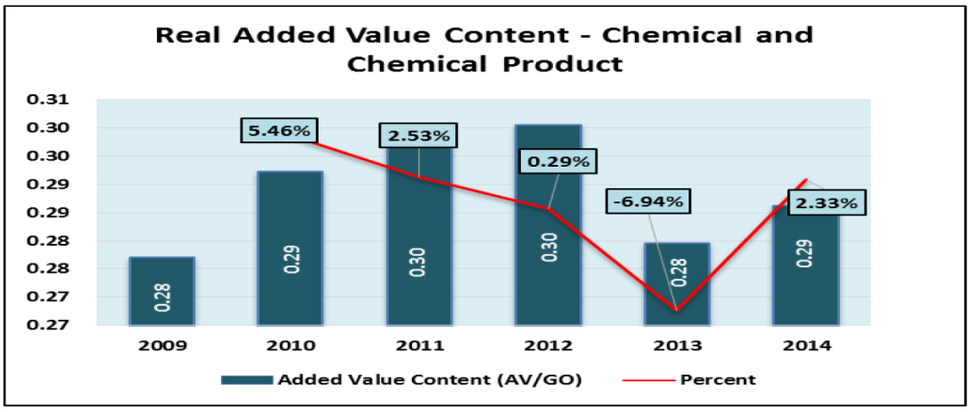

5.3.4 Sub sector 4: Manufacture of Wood and Products of Wood except Furniture, Articles of Straw.

Labour productivity and competitiveness

The labour productivity growth in this sector increased from -3.67 percent in 2013 to 2.81percent in 2014, although the level figures declined during the period 2009-2014. The labour cost per employee increased by 10.89 percent in the period 2013 to 2014 and this was higher than the productivity growth; the unit labour cost showed an increasing trend in the same period. Therefore, this sector was not labour competitive in the period 2009-2014.

Figure 5.13 a-f

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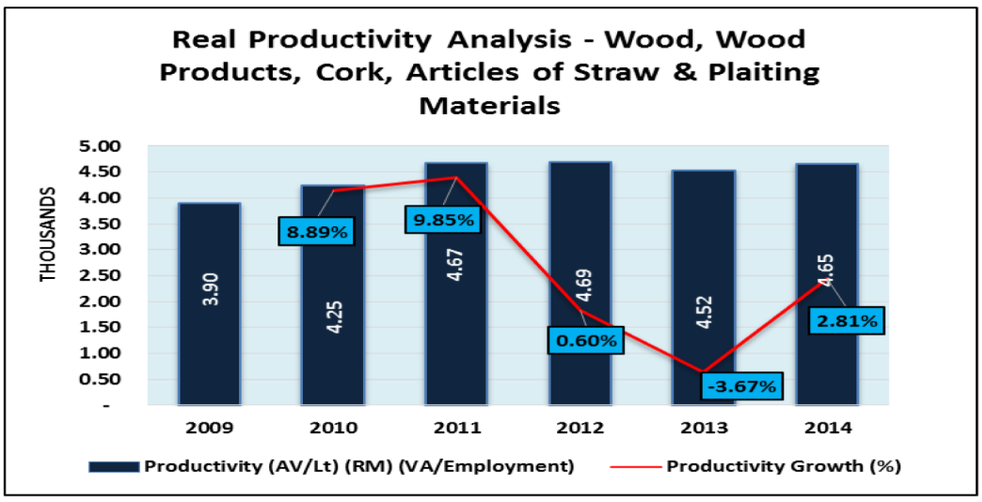

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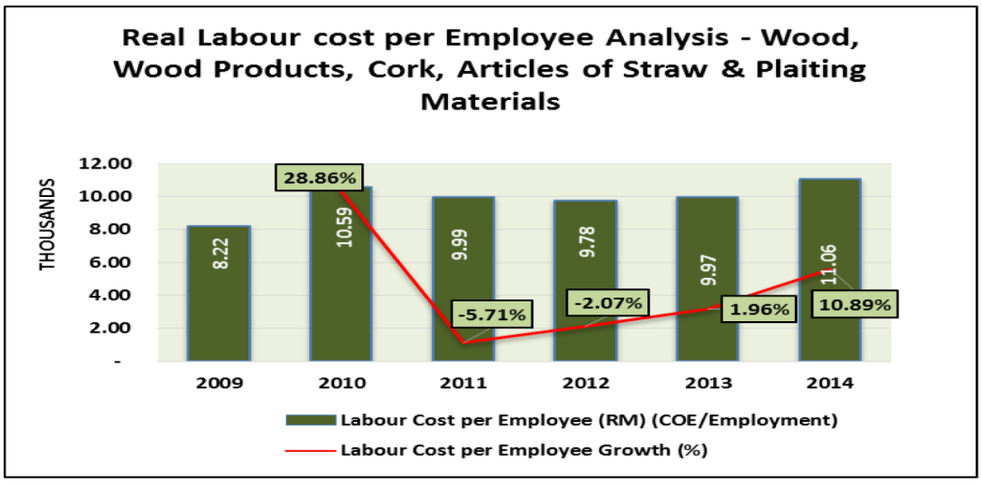

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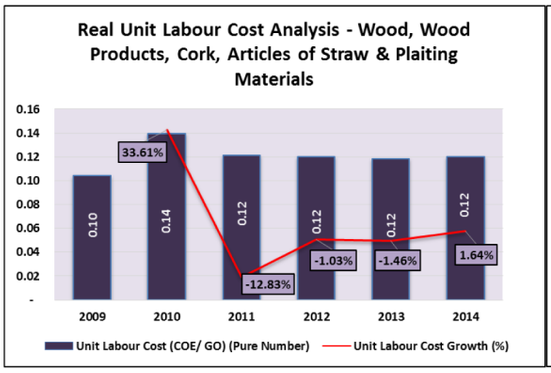

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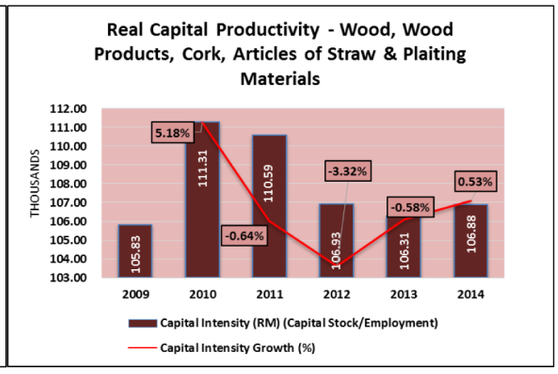

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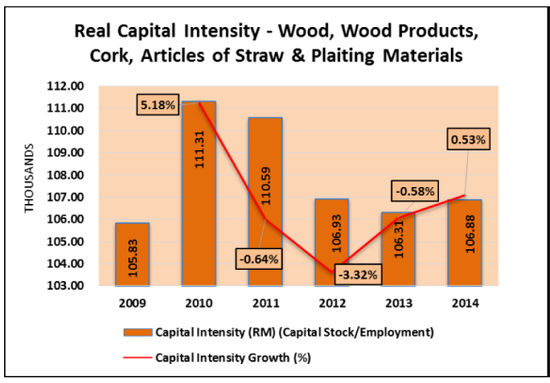

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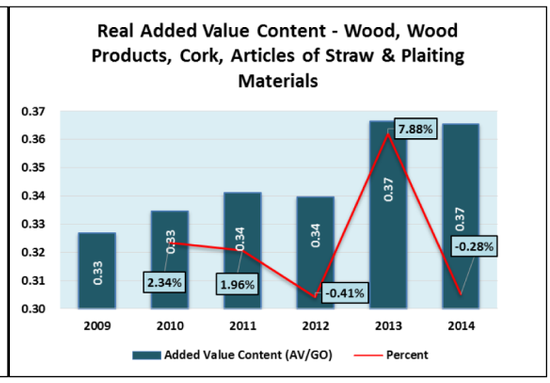

CAPITAL PRODUCTIVITY

The real capital productivity growth increased from -0.58 percent in 2013 to 0.53 percent in 2014.The increase in capital productivity growth in 2014 can be attributed to efficient machine use or production of products that needed more capital input. The added value has shown growth trend in 2014; the level figures have also increased over the six-year period.

5.5.5 Sub sector 5: Manufacture of Fabricated Metal Products, except Machinery and Equipment.

Labour productivity and competitiveness

The labour productivity growth in this sector decreased from -1.81percent in 2013 to -5.67 percent in 2014; the level figures decline since 2010. The labour cost

per employee decreased by 0.48 percent in the period 2013 to 2014 and this was higher than the productivity growth. The unit labour cost showed an increasing trend in the same period. The fabricated metal sector was not labour competitive in this period.

Figure 5.14 a-b

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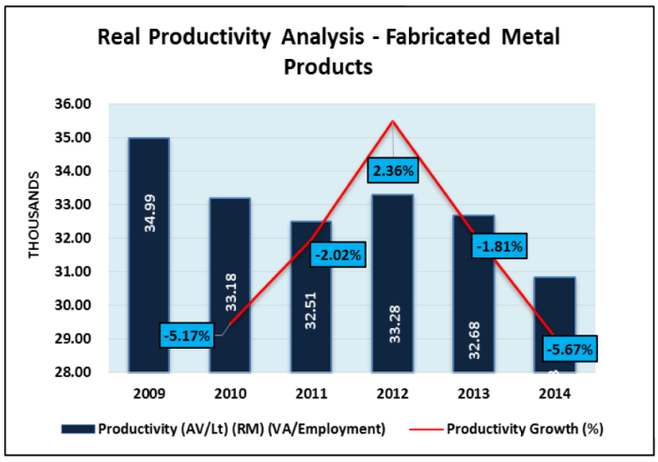

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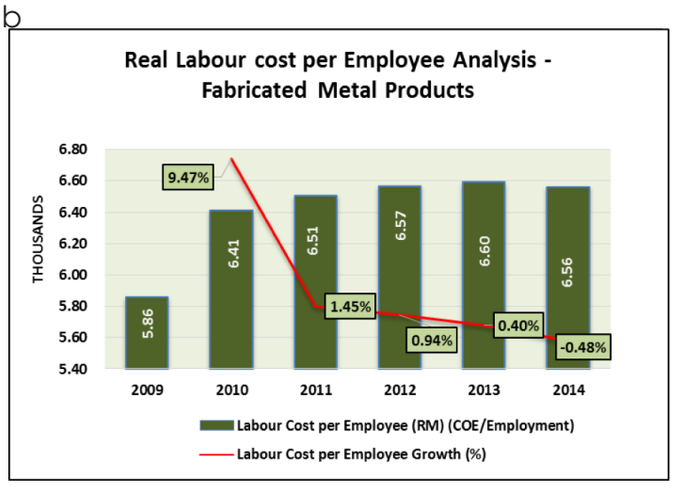

CAPITAL PRODUCTIVITY

The real capital productivity growth decreased from 3.00 percent in 2013 to -1.23 percent in 2014. The decrease in capital productivity growth in 2014 can be attributed to inefficient machine use or production of products that needed more capital input as capital intensity also slightly increased. Real capital productivity and real capital intensity showed a volatile trend during the period 2009-2014. The added value content has shown declining trend in 2014. The level figures have also decreased.

Figure 5.15 a-d

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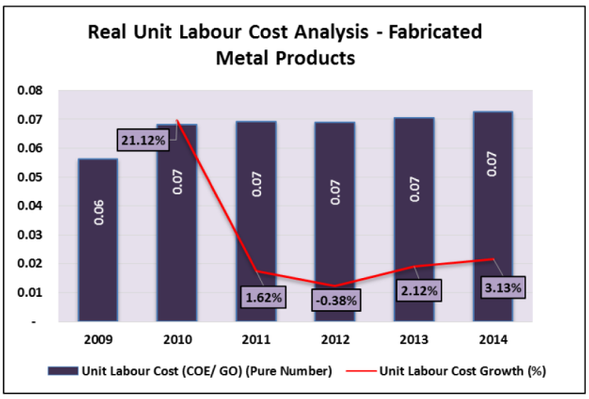

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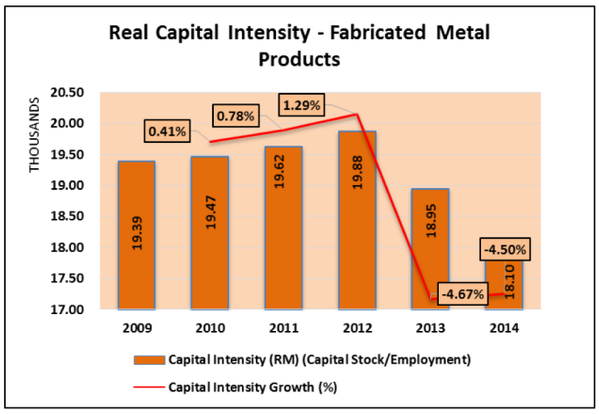

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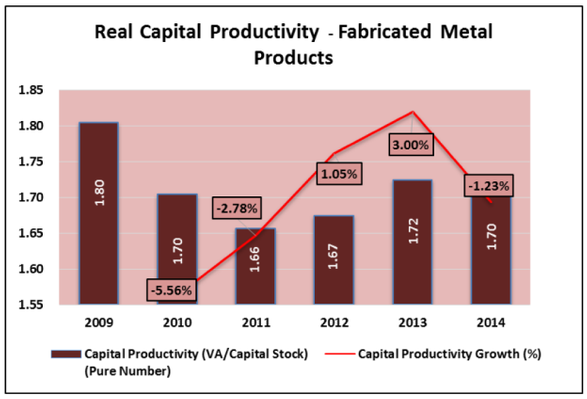

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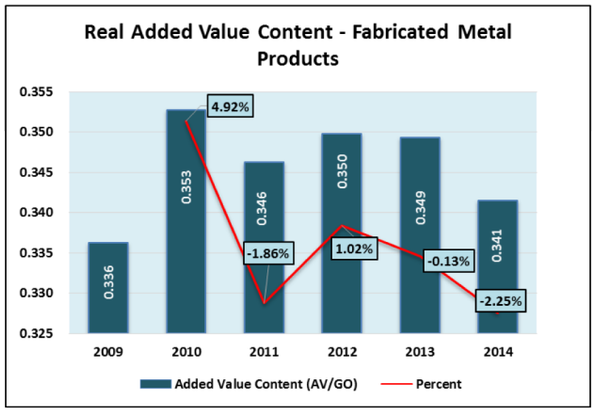


5.4 CONCLUDING REMARKS FOR MANUFACTURING SECTOR

Manufacturing sector in Fiji caters for local consumption and exports. The government has implemented various taxation concessions, tax reforms, tax free zones in this sector and as a result is expected to grow. Furthermore, the zero-rated duty incentive by the government for the importation of all plant machinery and equipment for manufacturing initiative has already created new investment and similar incentives are essential to support this sector. Policy incentives such as marketing grant and export income deduction can be quite useful. Further policy assistance to identify and explore new markets is essential. The Food and Beverage sector has effectively reduced production cost by using solar powered energy. This type of initiative can be rolled out to other successful manufacturing sub sectors to reduce their production cost.

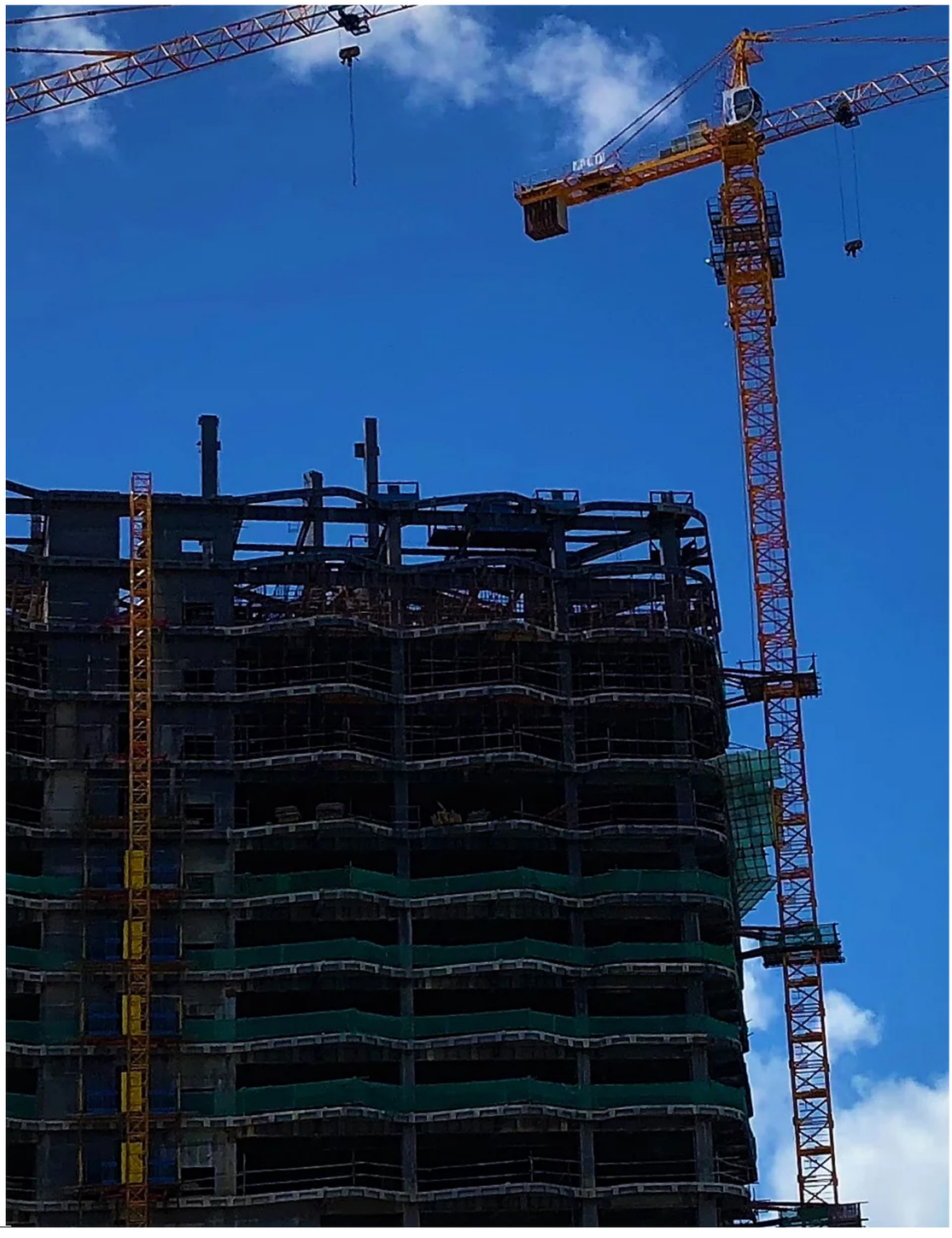
Some measures to improve productivity include improving new efficient labour management techniques, training and, technical skills enhancement, and also promoting the use of ICT in different sectors to enable faster flow of information, efficient management of workers and reduction in costs. The apparel sector, in particular the garment industry has continued to play a significant part in the added value of manufacturing sector. The garment industry near sourcing strategy has worked well and this sub sector is expected to grow well. Turnover and volume also help secure niche market in this subsector. Further, policy and research support are necessary to encourage similar innovative efforts in other sub sectors. It will also be useful for the government to examine the role of the SMEs and whether SMEs operate more efficiently and produce at lower cost in certain sub-sectors. More research in this direction is warranted. Depending upon its feasibility, additional government support through small business grants and technical assistance might be warranted across the sub-sectors in efforts to reduce labour cost and boost productivity. To further enhance productivity, it is vital that the government carefully evaluate business laws, wage rate and working conditions, and access to credit across the different sectors. Further research is essential in understanding the dynamics of productivity at sub-sector levels.

CHAPTER 6

PRODUCTIVITY PERFORMANCE OF THE CONSTRUCTION SECTOR

6.1 OVERVIEW

Construction activities account for a substantial proportion of the total economic activity, whether in terms of the sector to the Gross Domestic Product (GDP) or in terms of its share of total employment and Gross Fixed Capital Formation (GFCF). The construction sector has proven to be one of the resilient industries in Fiji due to the strong demand for residential and commercial buildings. The construction sector contributed around 3.4 percent towards GDP in 2017.



Statistics on construction are therefore needed for the preparation of national accounts so that a meaningful study of the whole economy can be made. The data can also be used to construct the input-output table that shows the inter-connection of the Building and Construction Industry with other industries. Policy makers, too, require the data for formulating sound economic and social policies that augment capital formation that adds to capital stock of an economy. Finally, the data of the construction industry helps assess the importance and efficiency of the industry and this in turn helps the enterprises engaged in the building and construction industry plan and operate their business effectively through sound economic policies.

The construction sector can be classified into the following key sub sectors; Construction of Building, Civil Engineering, Other Civil Engineering Project, Demolition and Site Preparation, Electrical Installation, Plumbing, Heat and Air-conditioning Installation, Other Construction Installation, Other Specialized Construction Activity, and Building Completion and Finishing. Diversification activities in the construction sector include design, construction, installation and finishing services.

Table 6.0 Fiji's Construction Sub-sector

41001	Construction of Building
42001	Civil Engineering
42002	Other Civil Engineering Project
43101	Demolition and site Preparation
43211	Electrical installation
43221	Plumbing, heat and air conditioning installation
43291	Other construction installation
43901	Other specialised construction activity
43301	Building completion and finishing

General construction is the construction of entire dwellings, office buildings, stores and other public and utility buildings, farm buildings etc., or the construction of civil engineering works such as motorways, streets, bridges, tunnels, airfields, harbours and other water projects, irrigation systems, sewerage systems, industrial facilities, pipelines and electric lines, sports facilities, etc.

The 2008-2014 survey covered all enterprises operating in the construction industry defined by the Fiji Standard Industrial Classification (FSIC) 2010 Section F.

It is nevertheless possible that some small units not employing regular paid workers may have been omitted due to difficulties in identifying them, but the nature of such units do not affect the overall results in any significant way.

An estimated $105.0 million worth of construction work was put in place during the September quarter of 2014. The amount is $2.9 million or 2.9 percent higher than the June quarter of 2014 and is $8.0 million or 8.3 per cent higher than the September quarter of 2013. The value of work carried out for the Private Sector was $59.7 million with the remaining $45.3 million for the General Government. These are findings from the 2014 September Quarter survey covering enterprises engaged in construction work for both the Private Sector and the General Government.

Current repairs and maintenance

For Current Repairs and Maintenance, 91.9 percent of the value of work done was for the Private Sector and 8.1 per cent for the General Government. From the total estimated value of work put in place of $10.4 million, 12.9 percent was for Residential Buildings and 87.1 percent were for Non-residential Buildings. The estimated total value of work put-in-place for 2014 was $415.2 million, an increase of $54.9 million or 15.2 percent when compared to the previous year. The increase for 2014 is mainly due to some ongoing and new projects and civil engineering works carried out for repair and upgrading of roads around the country.

New buildings and capital repairs

The value of work put-in-place for New Buildings and Capital Repairs was $36.0 million, a decrease of $0.8 million or 2.4 percent compared to the June quarter of 2014 and a $1.0 million or 2.7 percent decrease over the September quarter of 2013. The value of work put-in-place for Non-Residential Buildings and Residential Buildings was $28.6 million and $7.4 million respectively. These were mainly for construction work on Commercial Buildings, Shops, and Religious and Educational Institutions.

6.2 PRODUCTIVITY PERFORMANCE

The construction sector recorded an impressive productivity growth of 10.32 percent valued at $14,783 in 2014 as compared to -4 percent in 2009 when the construction industry was just starting to expand. The sector sets up yearly budget to improve the industry's annual performance. Figure 6.1 indicates that productivity in this sector in levels has fluctuated during the period 2008-2014. However, the significant jump after 2013 indicates that productivity could go up should similar economic and political climate exist.

Figure 6.1

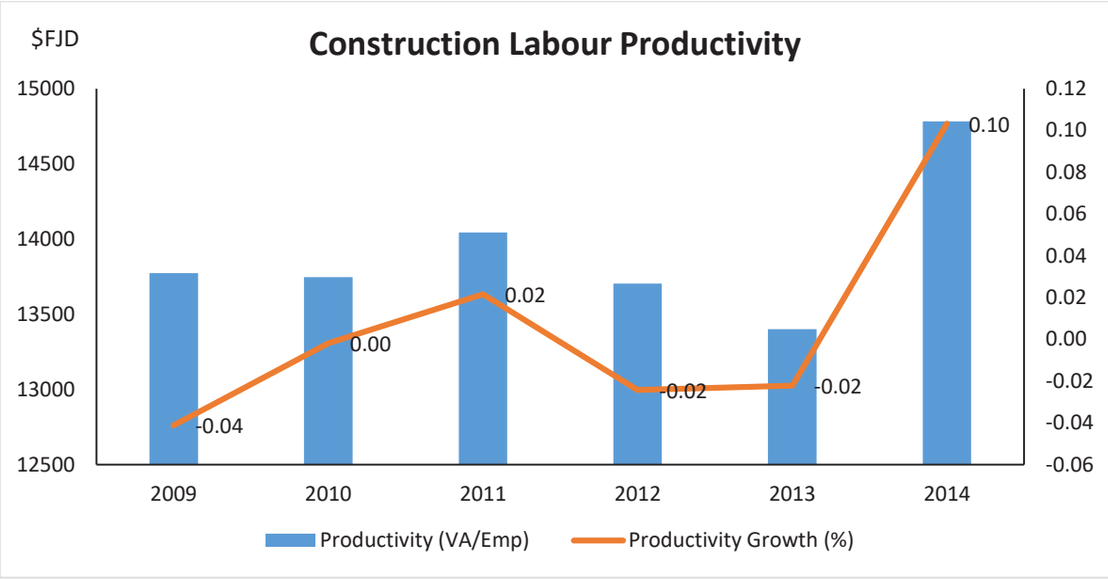
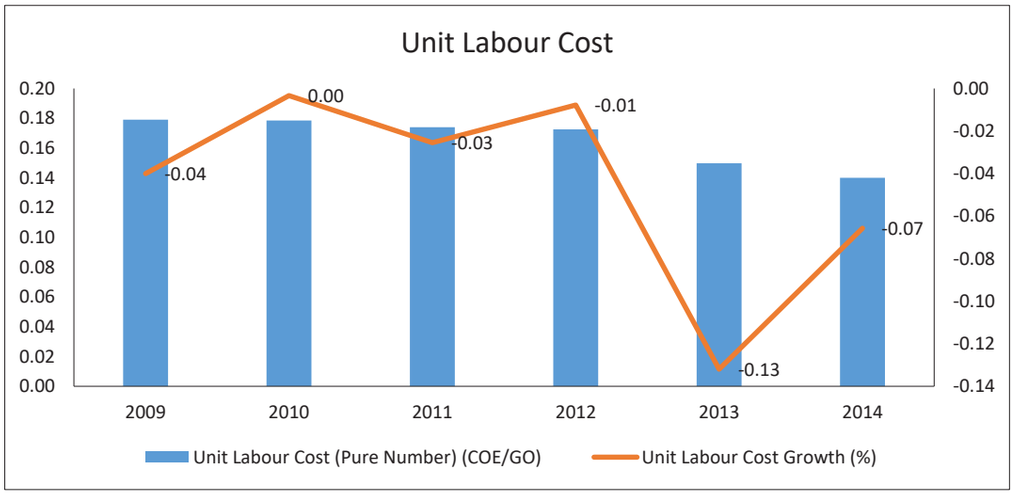


Figure 6.2



Figures 6.2 and 6.3 indicate that construction sector's labour cost per employee and unit labour cost has gradually declined over the seven-year period. However, the decline is not significant; there is a need to bring the cost down further to improve competitiveness.

Figure 6.3

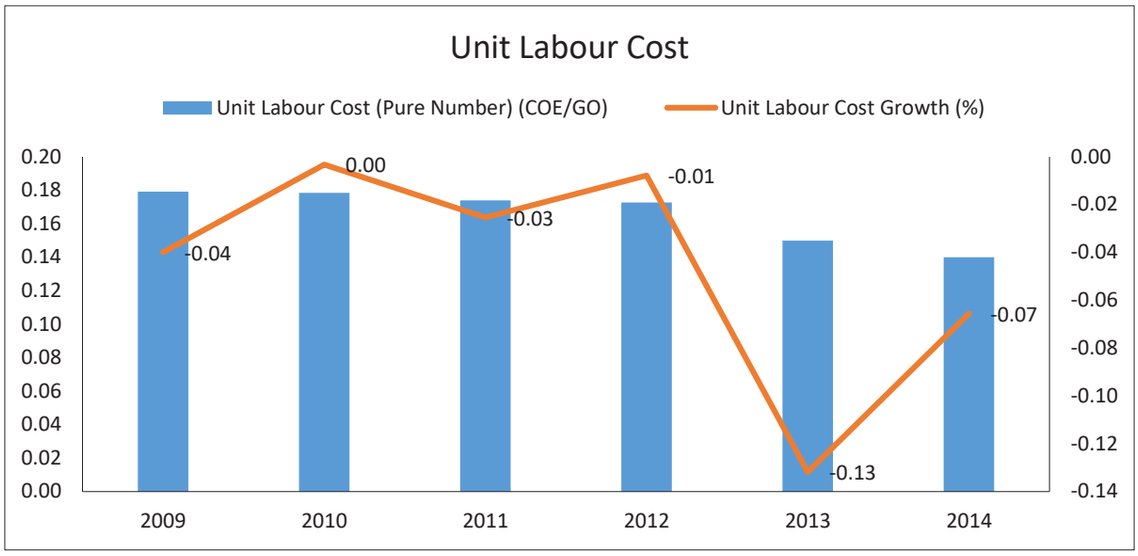
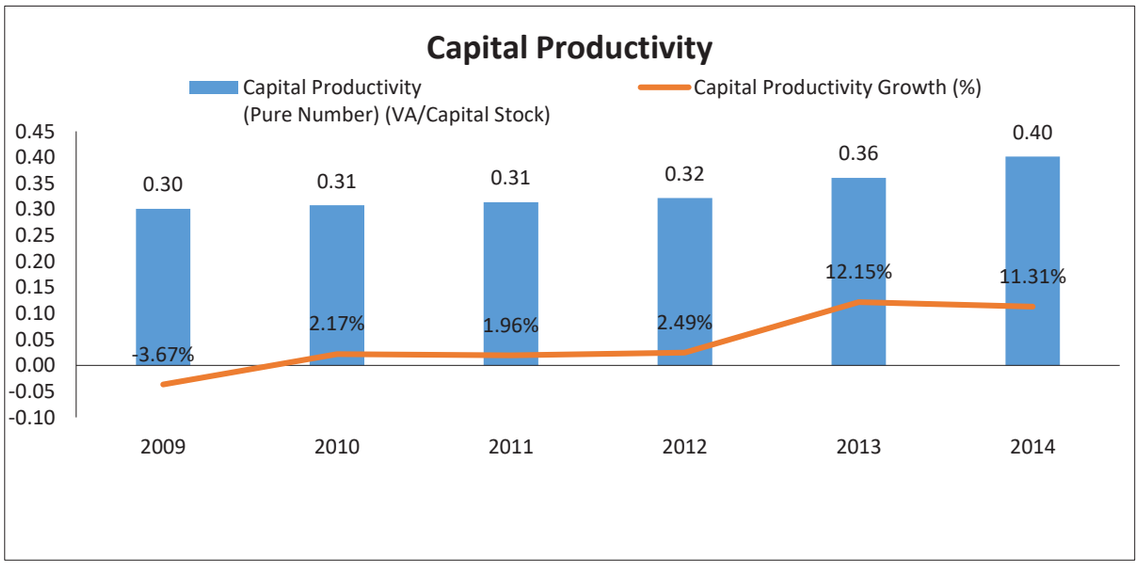
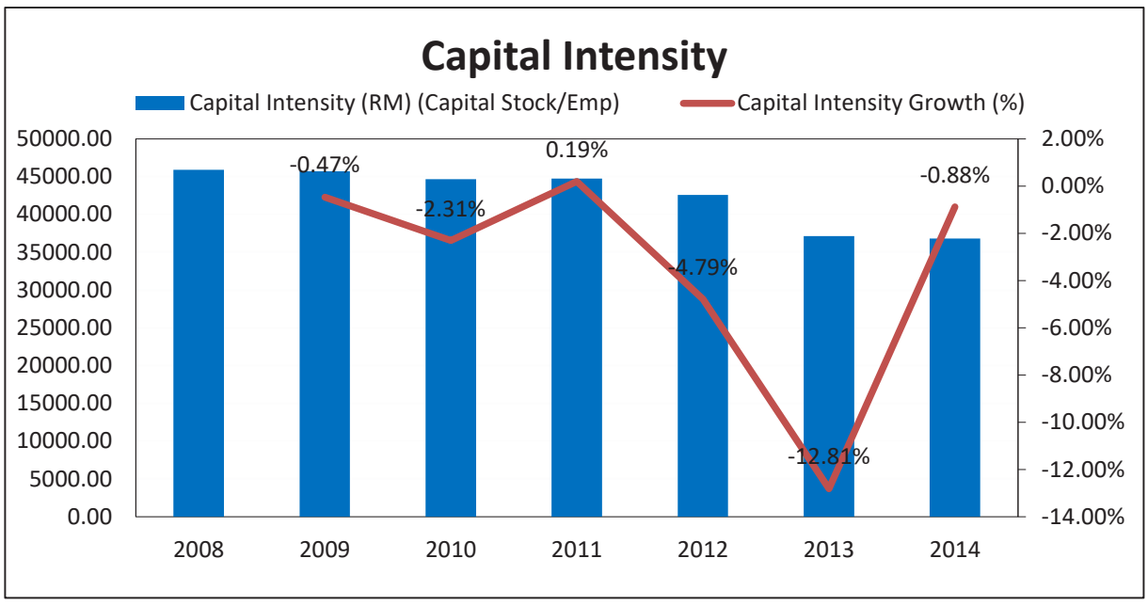


Figure 6.4



Since 2008, capital productivity in Fiji's construction sector has increased. This is a positive development over the seven-year period as indicated by Figure 6.4 and indicates existing capital was used more efficiently to produce output. Capital intensity has however declined. Should the sector adopt more efficient capital equipment, it could use its equipment more efficiently and boost its capital productivity further.

Figure 6.5



6.3 PRODUCTIVITY PERFORMANCE OF THE CONSTRUCTION SUB SECTOR 2008-2014

There was significant improvement in productivity performance in the construction of building sub sector during the period 2008-2014 (see Figure 6.6). While there was a decline in 2008/2009 following the global financial crisis, productivity level rose gradually for the next five years. In fact, productivity grew by nearly 11 percent during the period 2013-2014. The level of productivity in the Civil Engineering and Other Engineering Project sub sector declined in the post-GFC crisis. However, there was a sharp growth in productivity of around 7 percent before elections in 2014 (see Figure 6.7 and Figures 6.10-6.11). There was little change in the level of productivity for Demolition and Site Preparation, Plumbing, Heat and Air-conditioning Installation, Other Construction Installation/Other Specialised Construction Activity sub sectors (see Figure 6.8) while the level of productivity fluctuated in the Electrical Installation sub sector over the seven-year period.

Figure 6.6

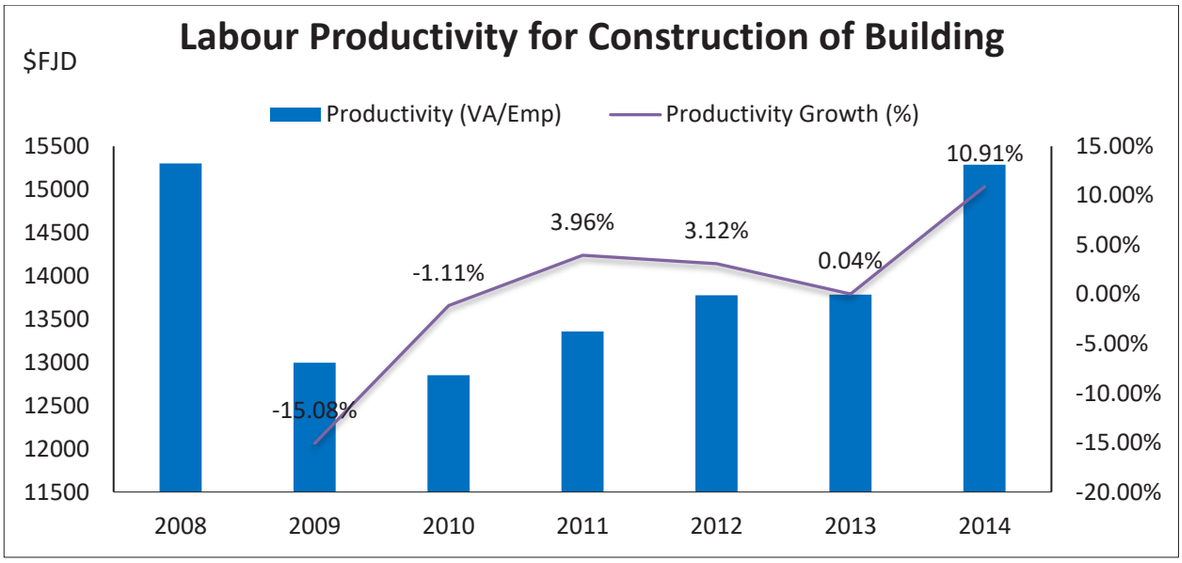


Figure 6.7

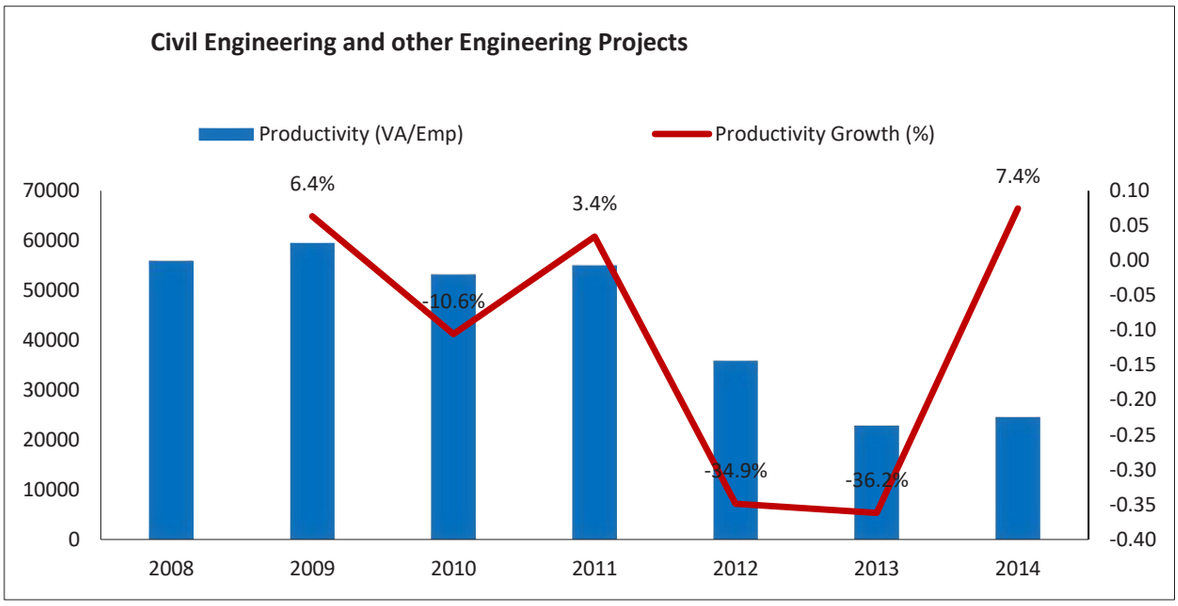


Figure 6.8 - 6.11

Labour Productivity

Fig. 6.8 **Demolition and Site Preparation**

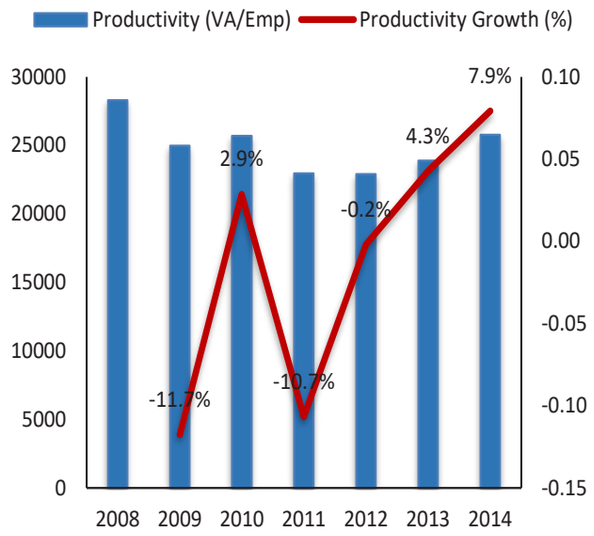


Fig. 6.9 **Other Construction Installation/ Other Specialised Construction Activity**

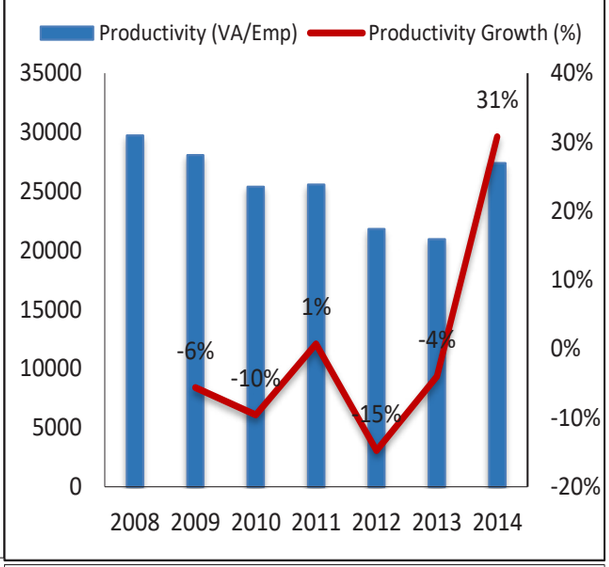


Fig. 6.10 **Electrical Installation**

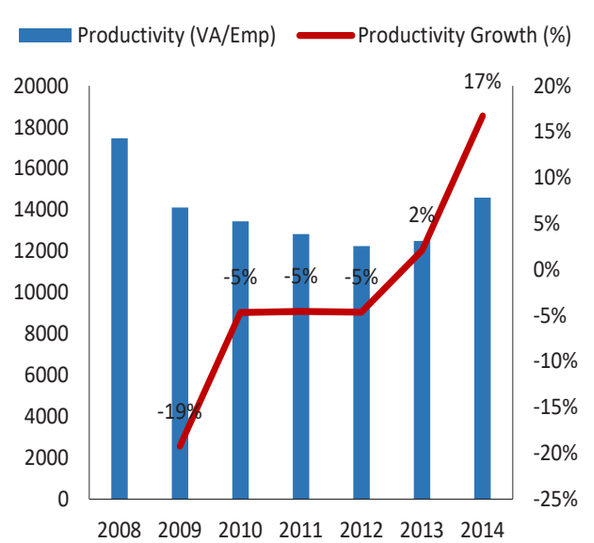


Fig. 6.11 **Plumbing, Heat and Air Conditioning Installation**

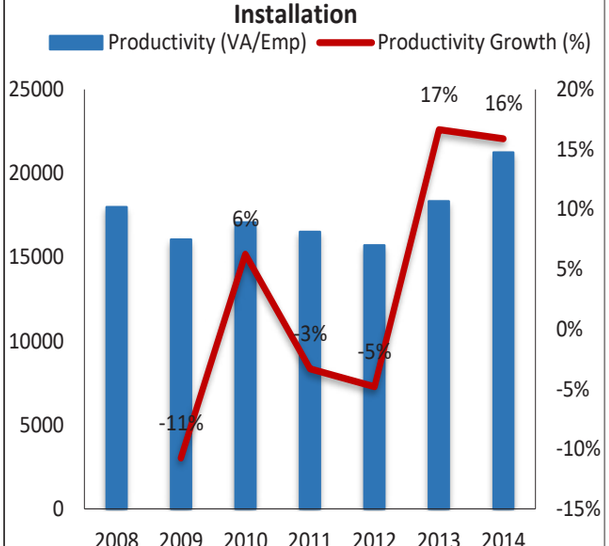
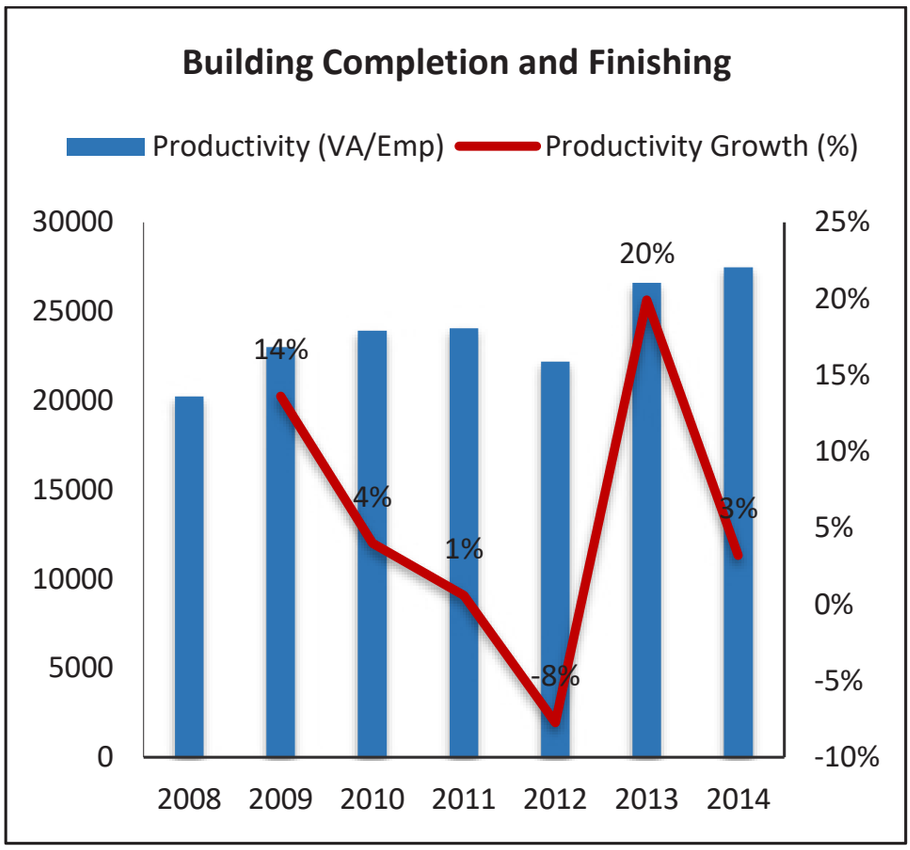


Figure 6.12



6.4 COMPARISON ACROSS SUB-SECTORS

In this section, we compare productivity performance across sub-sectors over the period 2008-2014. As indicated in Figure 6.14, in all sub sectors there was an improvement in the level of productivity after 2013. This is an interesting observation given that for most sub sectors productivity deteriorated after 2008. This is particularly true for sub sectors such as Electrical Installation, Civil Engineering/Other Civil Engineering Project, Other Construction Installation/ Other Specialised Construction Activity.

During the period 2008-2014, labour cost per employee declined for all sub-sectors (see Figure 6.15). Unit labour costs were much lower for most sub-sectors after 2012 as indicated by Figure 6.16.

Figure 6.13

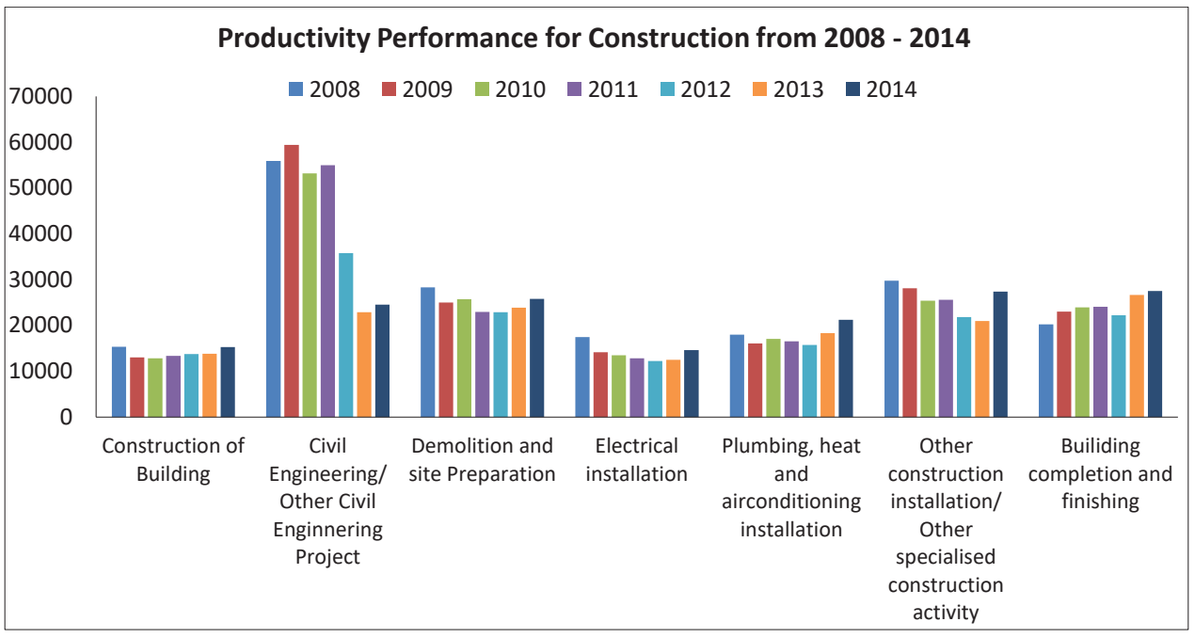


Figure 6.14

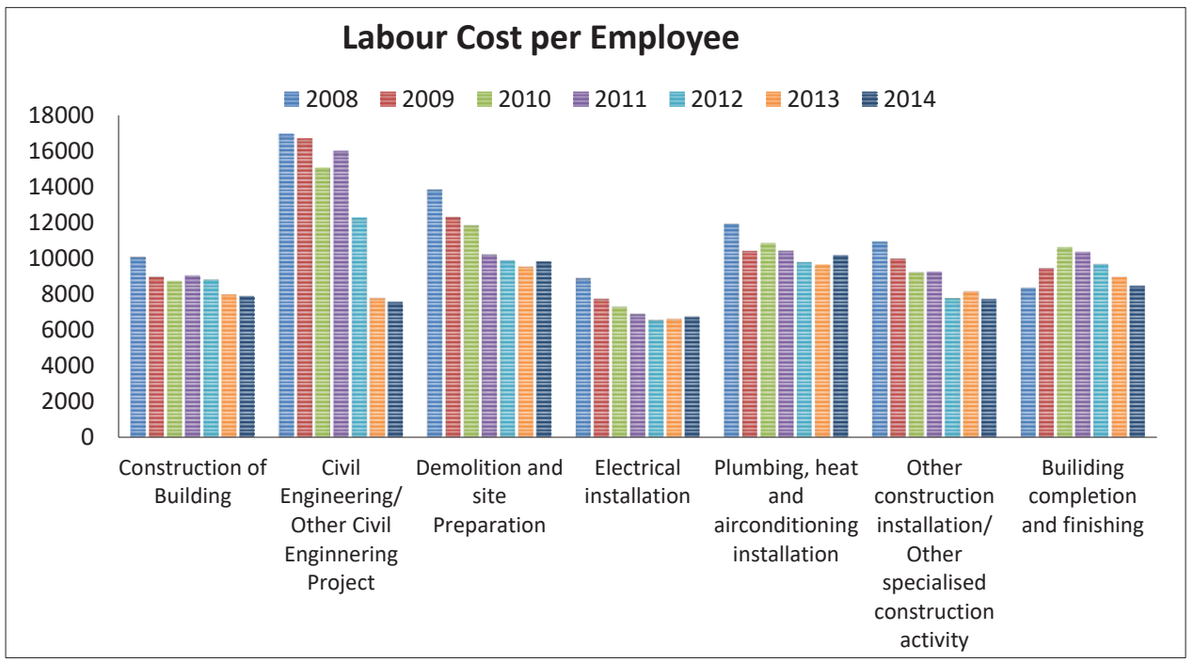


Figure 6.15

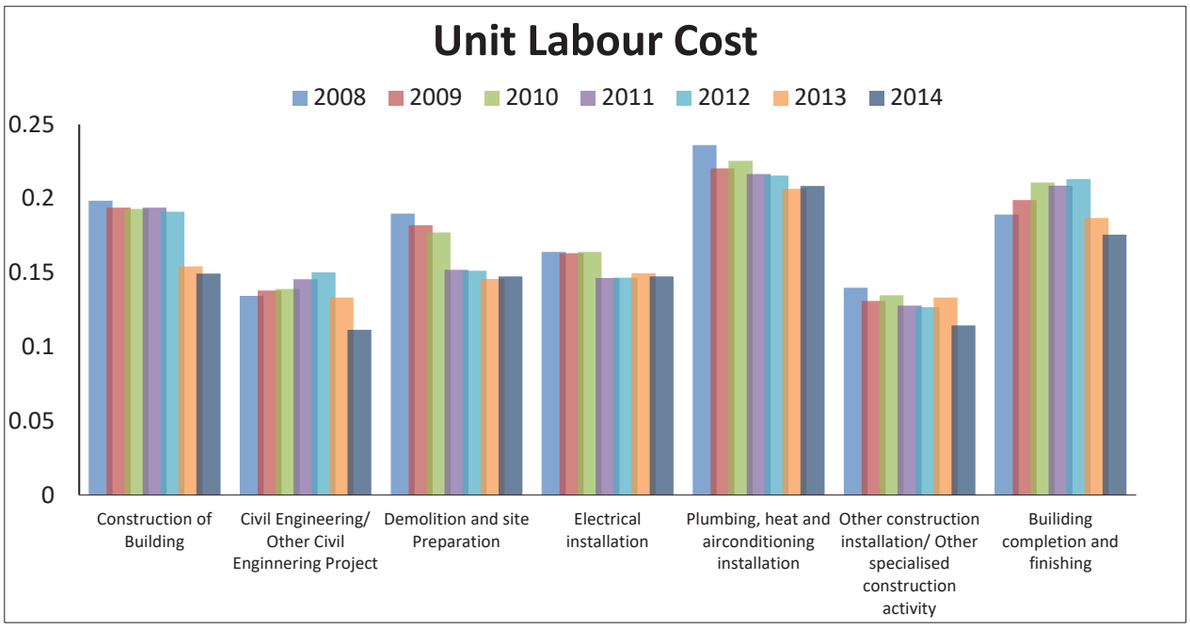


Figure 6.16

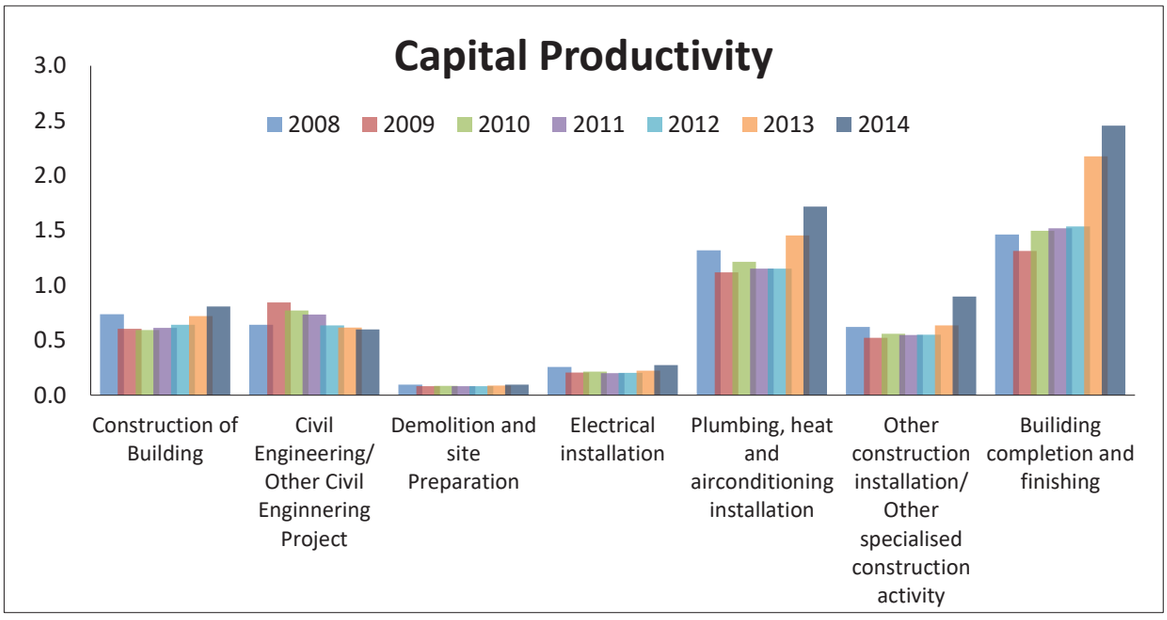
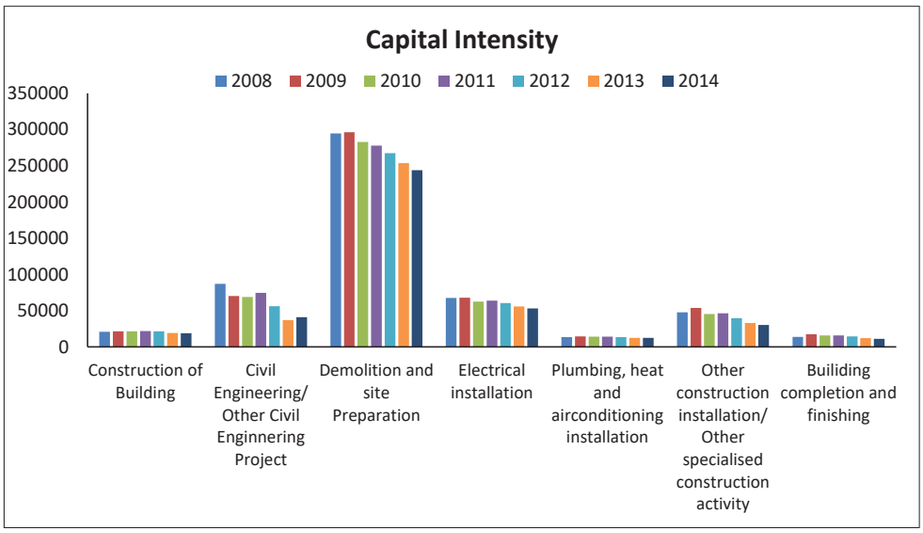
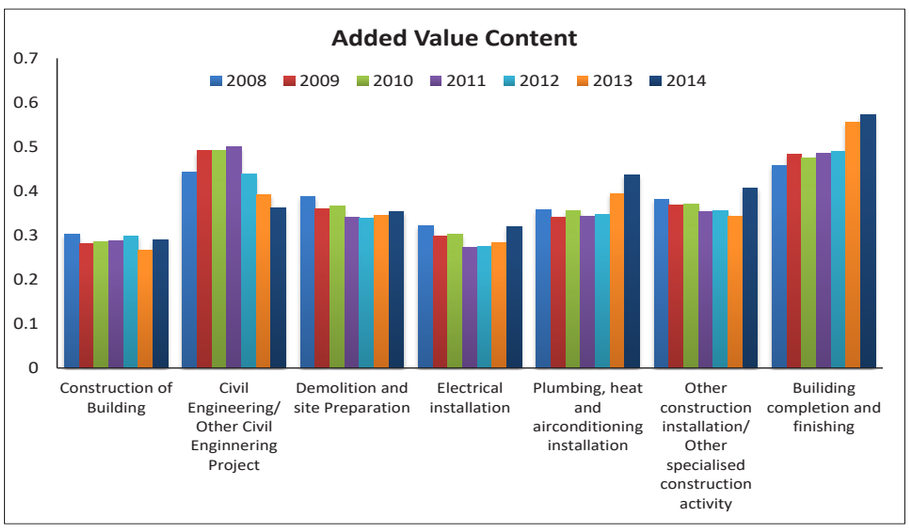


Figure 6.17



Capital productivity did not follow a similar trend across the sub sectors. First, as indicated by Figure 6.17, in some sub sectors such as Demolition and Site Preparation and Electrical Installation there was little change in capital productivity. Second, in sub sectors of Civil Engineering and other Civil Engineering projects, there was a decline in capital productivity. Third, there was an increase in capital productivity in Plumbing, Heat and Air-conditioning Installation, Other Construction Installation/Other Specialised Construction Activity, Building Completion and Finishing in sub sectors. This indicates differences in the way capital has been used across sub sectors. In majority of sub sectors, there was a decline in capital intensity or little change in capital intensity during the period 2008-2014. Finally, overall performance of added value content across sub sectors remained mixed. However, for the sub sector Building Completion and Finishing, there was an increase added value content during the period 2008-2014.

Figure 6.18



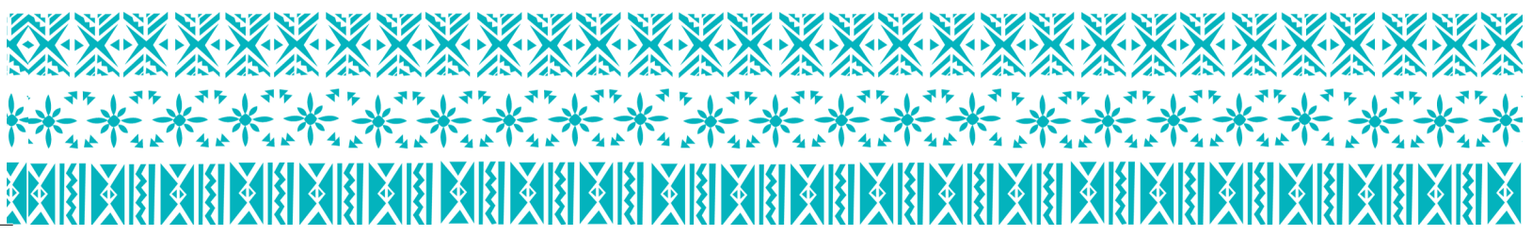
6.5 CONCLUDING REMARKS

The construction sector in Fiji faces a number of issues and challenges that are closely intertwined with its productivity performance at sector and sub-sectoral level. Important issues that need to be addressed are: shortage of qualified and skilled workers, poor work ethics, the misalignment between the number of available jobs and the number of skilled workers, lack of a skilled workforce, weather conditions, shortage of quality construction building materials, non availability of construction machineries and equipment, and underutilization of modern technology.

Until now, companies have taken some steps such as increasing pay and benefits and investing in training to try and combat this issue. Despite these efforts, it is a continuing problem that the industry has yet to resolve. The government has also stepped its effort and emphasised on apprenticeship, trade test, vocational, and technical education. More scholarships and related education assistance are necessary to improve labour productivity and bring the labour costs down. As the shortage of workers continues to be a problem, firms will also have to be aware of safety concerns and adjust appropriately. Targeted assistance including grants from Ministry of Employment, Productivity and Industrial Relations to address safety concerns with raising labour cost and adversely affecting labour productivity is required.

There is significant difference amongst the different generations of employees, particularly relating to work ethics and skills sets and it's important for government to support and encourage employment in construction sector. Another area of focus necessary is construction technology which includes cloud-based software, integrated collaboration, and mobile project management. Companies must be strategic when implementing new technology to not upset the veteran employees who are set in the traditional way of doing business. Companies must implement technology slowly and steadily to reap its benefits with minimal blowback from employees.

The use of Building Information Modelling (BIM) and Laser Scanning are becoming more commercially affordable, and despite the initial investment, reduces cost in the long run by streamlining processes. BIM is starting to be introduced to students in higher education and is expected to become more prevalent in the upcoming years. Fiscal incentives to improve the status of technology adoption can go long way to make construction companies competitive, drive labour cost down, improve labour productivity and improve quality of final output. The industry also needs to consider the effects of its production on the environment.



CHAPTER 7

PRODUCTIVITY PERFORMANCE OF THE SERVICE/TOURISM SECTOR

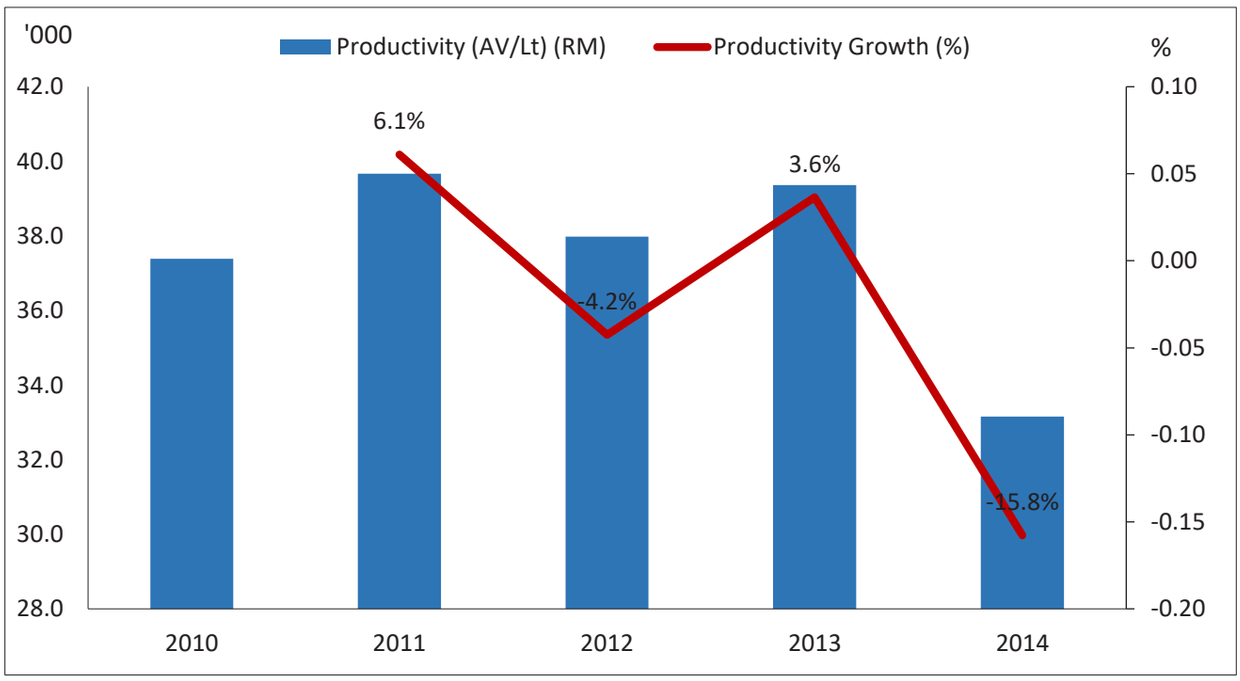
7.1 AN OVERVIEW

The Services sector includes Accommodation and Food Services, Real estate, Financial and insurance and so forth. The share of the service sector has increased significantly since Fiji's independence, and in recent years, there has been marked increase in the Accommodation & Food Services and Real Estate sub sectors. The service sector productivity grew at an average rate of 4.8 percent between 2008 - 2014. Labour cost per employee increased at 1.4 percent for the same period while the capital productivity grew at an average of 0.65 percent during the 6-year period. The Accommodation and Food sector's contribution to GDP was around 6.0 percent on average from 2008-2014. In the five-year period, employment in the service sector grew by 8.11percent. This high growth is the result of growth in labour demand in the certain sub sectors. For the purpose of this analysis, the tourism sector is mainly represented by the accomodation and food services sector.

7.2 ACCOMMODATION SECTOR

Over the study period, the level of productivity in the Accommodation Sector fell significantly, suggesting the need for urgent policy intervention. The sharp fall in productivity could reflect absence of innovation, particularly related to the range of products offered by the sector. Figures 7.1- 7.2 clearly highlight the deteriorating trend regarding productivity in the accommodation sector.

Figure 7.1



Labour cost showed an upward trend suggesting a decline at sectoral level to efficiently use its labour supply. The direct cost could be a result of changing wages and outdated labour management techniques. Other indicators such as labour cost per employee and unit labour cost growth showed no evidence of significant improvement over the sample period. As far as capital productivity is concerned, this also showed a worsening trend as indicated by Figure 7.3 and confirms evidence of little improvement in capital productivity.

Figure 7.2

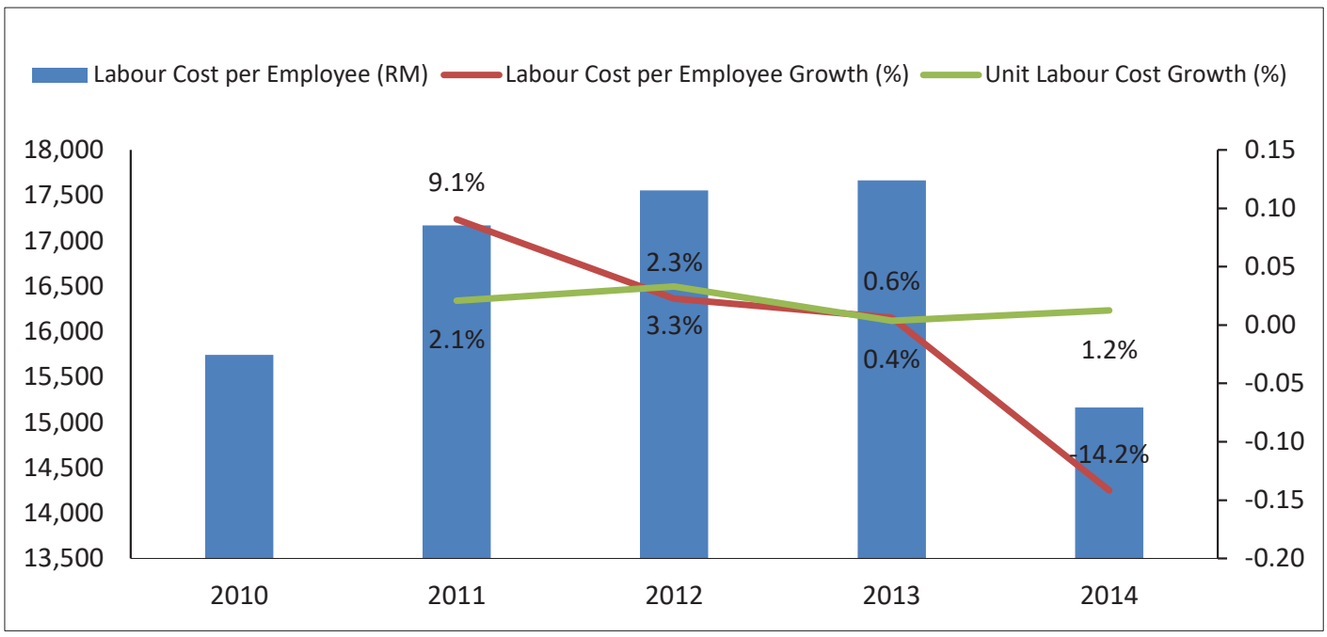


Figure 7.3

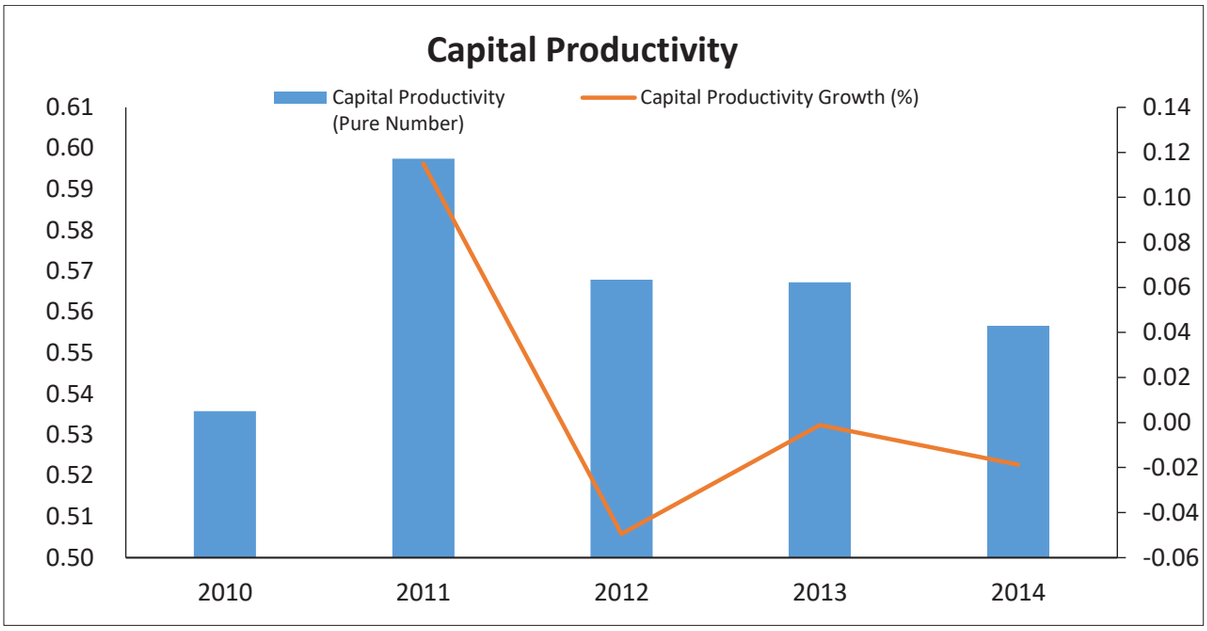
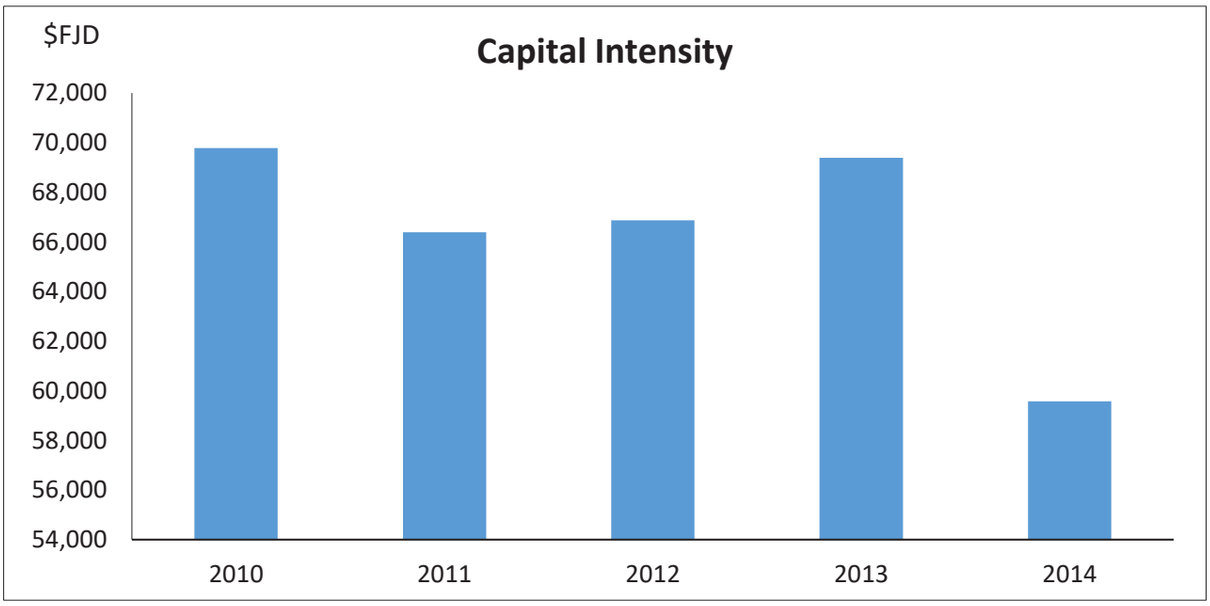


Figure 7.4



7.3 FOOD AND BEVERAGE SERVICE SECTOR

With reference to the Food and Beverage sector, there was significant increase in the level of productivity from 2011 strongly supported by investment in tourism infrastructure, favourable tax policies and investment in tourism related education. However, the growth rate of productivity was volatile (see Figure 7.5). Labour productivity in this sector showed an upward trend in levels from 2009. Interestingly, there was only a marginal increase from 2012 to 2013.

Figure 7.5

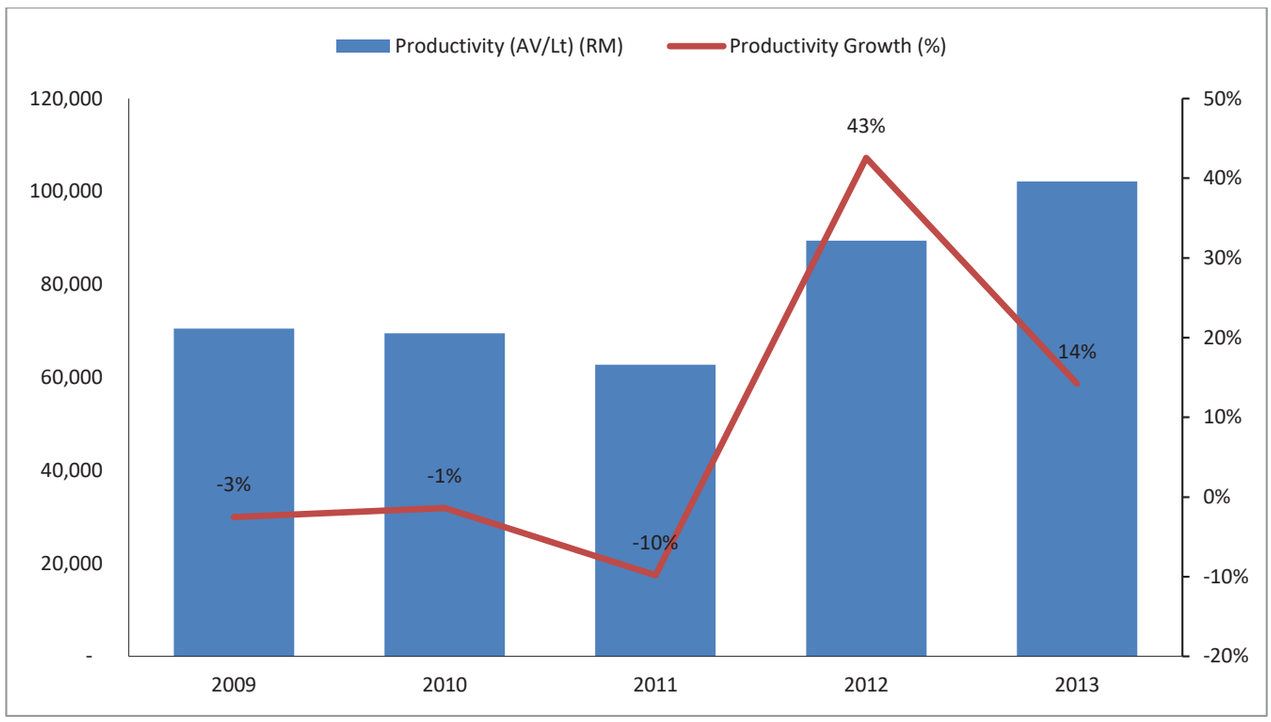


Figure 7.6

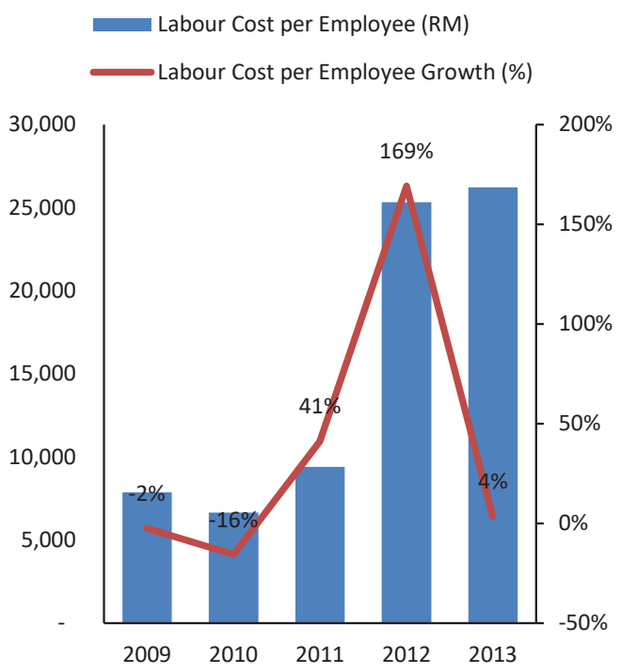


Figure 7.7

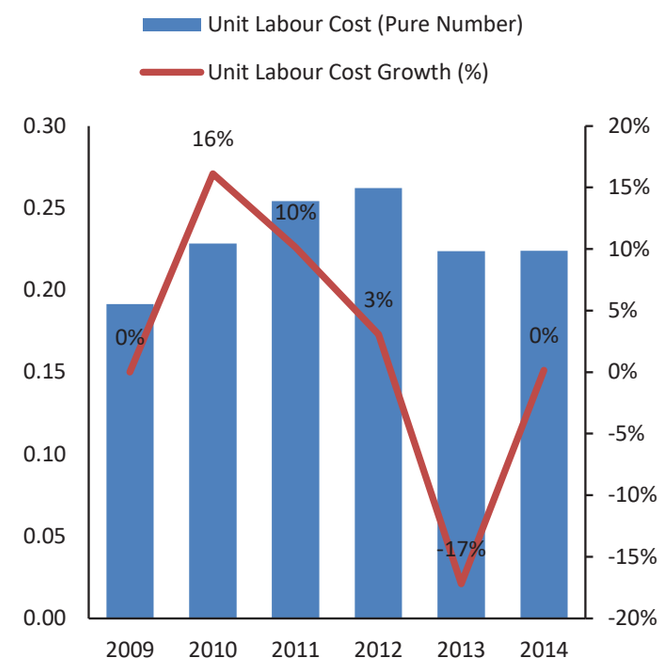


Figure 7.8

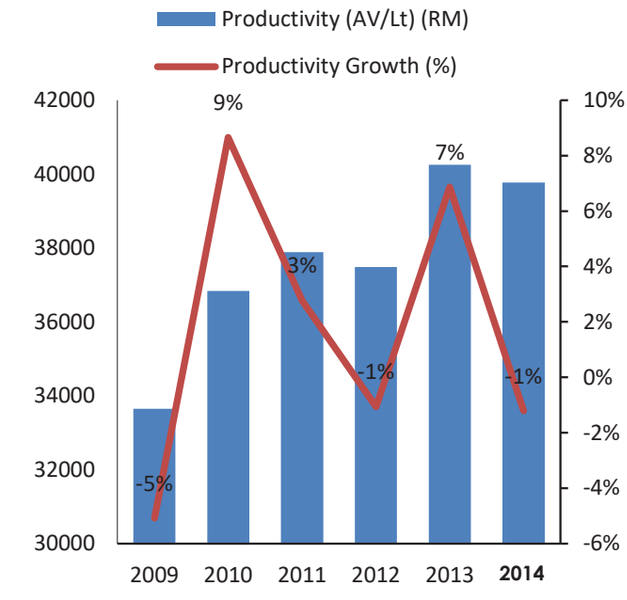
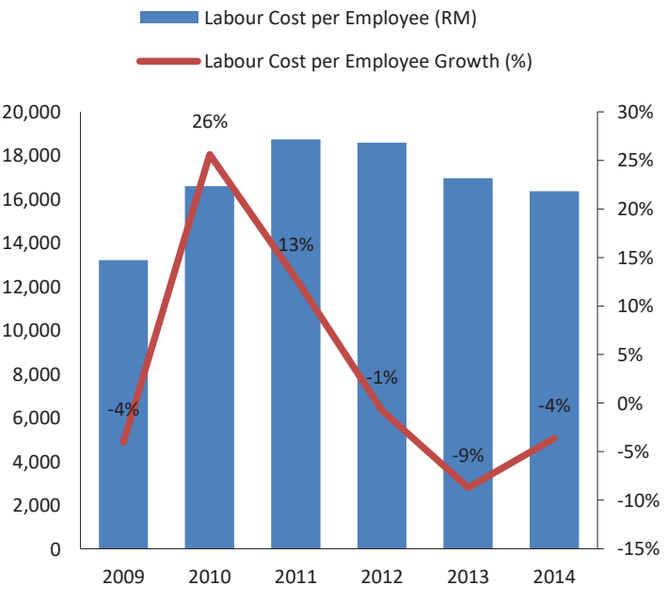


Figure 7.9



The labour cost per employee declined over the study period, suggesting cost improvements. The unit labour cost declined slightly in this sector, suggesting positive performance. The overall productivity showed an upward trend as indicated in Figure 7.8. Therefore, the productivity performance of this sector was favourable during the study period.

7.4 Concluding Remarks

Tourism is an important sector for Fiji's economy. The Accommodation and Food & Beverage Sectors are directly affected by the tourism industry. The main finding from the accommodation sector is that there has been little improvement in productivity, suggesting the need to relook at production methods, explore new methods to utilize existing labour and bring cost down. Similarly the cost of labour in the Food and Beverage sector also seems to have had hardly improved, suggesting the importance of targeted assistance by the government. To reduce the cost of labour, government needs to encourage use of cheap technology and provide training and support.

More research is required to understand the differences in productivity level across the two sectors to identify relevant policy options. Our finding here suggests that failure to reduce cost and improve productivity in these two sectors can have a significant adverse impact on the competitiveness and long-term viability of Fiji's tourism industry.

APPENDIX

A. Web References and Links

1. Asian Productivity Organization
https://www.apo-tokyo.org/

2. National Training & Productivity Centre
https://www.fnu.ac.fj/ntpc/

3. Fiji Bureau of Statistics
https://www.statsfiji.gov.fj/

4. Reserve Bank of Fiji
https://www.rbf.gov.fj/

5. World Development Indicators
https://datacatalog.worldbank.org/dataset/world-development-indicators

6. Malaysia Productivity Corporation
http://www.mpc.gov.my/

7. International Labour Organisation (ILO)
http://www.ilo.org

B. Calculations

Labour Productivity (LP) ($) = Value Additions/ Number of Employees

Labour Productivity Growth (%) = (LP $_{this\ year}$/ LP $_{last\ year}$-1)*100

Capital Productivity (KP) ($) = Value Additions/ Gross Fixed Capital Formation

Capital Productivity Growth (%) = (KP $_{this\ year}$/ KP $_{last\ year}$-1)*100

Labour Cost per Employee (LCPE) ($) = Compensation of Employees/ Number of Employees

Labour Cost per Employee Growth (%) = (LCPE $_{this\ year}$/ LCPE $_{last\ year}$-1)*100

Unit Labour Cost (ULC) ($) = LCPE/LP

Unit Labour Cost Growth (%) = (ULC $_{this\ year}$/ ULC $_{last\ year}$-1)*100

Capital Intensity Ratio (KI) ($) = Gross Fixed Capital Formation/ Employment

Capital Intensity Growth (%) = (KI $_{this\ year}$/ KI $_{last\ year}$-1)*100

C. Abbreviations

APO	Asian Productivity Organization
FBoS	Fiji Bureau of Statistics
FDI	Foreign Direct Investment
FNPF	Fiji National Provident Fund
FSIC	Fiji Standard Industrial Classification - 2010
GFCF	Gross Fixed Capital Formation
ICT	Information, Communication & Technology
LCPE	Labour Cost per Employee
LFPR	Labour Force Participation Rate
NEC	National Employment Centre
NPC	National Productivity Council
NPO	National Productivity Organization
NRC	National Research Council
NTPC	National Training & Productivity Centre
PPP	Purchasing Power Parity
R&D	Research & Development
RBF	Reserve Bank of Fiji
SDA	SME Development Agency
SIDS	Small Island Developing State
SME	Small (Including Micro) and Medium Enterprise
TFP	Total Factor Productivity

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