



FINANCIAL MANAGEMENT (LCMB7002)



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Part (a)

Company background

In accordance with the Royal Dutch Shell (RDS) PLC, the oil and gas company commonly known as the Royal Dutch Shell Company (RDSC) was established in the year 2005 by reorganizing the Royal Dutch Shell Group. The company mainly focuses on gas and oil companies which have branches established in more than 90 countries in the world. Its headquarters are located at Hague, in the Netherlands. The RDS PLC tells us that the Royal Dutch Shell Company was formed by unifying the companies which were rivals, namely, Shell Transport and Trading Company which operates in London, and The Royal Dutch Petroleum Company located at Hague.

In accordance with an article namely which was published as *The RDS PLC*, the founders of RDSC are Marcus Samuel and Samuel from the Shell line and B. A. Jean Kesler, Henri Deterding and Hugo Loudon from the Royal Dutch line. The two companies were rival companies in the 19th cc. In 1903, the two companies made their first move to merge the companies by combining their sales and distributing operations. In 1907 they formed a complete merger resulting into the Royal Dutch/Shell Group. By 1913 the merger was among the leading oil companies in the world. The Royal Dutch PLC Further states that the company expanded throughout the 20th century searching for new reserves. In 2004 the Dutch/Shell Group pointed out that they had overestimated their reserves and therefore they revised the estimates. The revised estimates reduced the company's reserves by about 40% thus reducing the stock of the company. This prompted the demand in shareholders for a responsive corporate and better unit thus replacing the Dutch/Shell Group with a single company. The Royal Dutch Shell Company

purchased the BG Group in 2015 for securing its position to be leaders in the looming liquefied natural gas (LNG) industry.

The Shell Annual Report of 2019 describes the organization of activities of the company. It outlines the Integrated Gas, Upstream and Downstream and their respective themes. It also outlines the delivery of their projects and the type of technology used. According to the Shell Annual Report of 2019, the integrated Gas covers two strategic themes. The first theme is the integrated gas which is concerned with the management of LNG activities and also converting the natural gas to be in form of GTL fuels and also into other different products. It is also involved in the extraction and exploration of the natural gas together with the operating midstream and upstream infrastructure that is essential in the delivery of the gas to consumer market. The integrated gas trades and markets LNG, natural gas, electricity, and the emission of carbon rights and tends to sell LNG to the marine vessels and vehicles which are heavy-duty as fuel. The second theme is the New Energies which explores looming opportunities and also invests in those that seem to have high returns. The New Energies also focuses on new transport fuels (Shell Annual Report 2019).

The Shell Annual Report 2019 also outlines the Upstream Organization which has two themes, namely, deep Water and Shales and Conventional Oil and Gas. The Upstream Organization manages the extraction and exploration of the natural gas liquids, natural gas, and crude oil which is responsible for market and transport the gas and oil. It also operates with specific infrastructure for delivery. The organization of Downstream contains themes that are two and strategic, which are chemicals and Oil Products. They became themes which are leading in transition according to the Shell Annual Report of 2019. The Downstream company is responsible for managing the chemical and oil products. It is responsible for the refining and

trading of the crude oil together with other feedstocks which tends to be in a range of products which are to be moved and also marketed worldwide for industrial, transport and domestic use.

The Technological and Projects Organization is in charge of management of the delivery concerning big projects and also researching and innovating new methods to develop a wide range of solutions to technology. It provides technical services for the integrated gas, downstream and upstream activities. They provide better leadership skills across the Shell at specific areas of contracting and also procurement, safety and environment, well activities and greenhouse gas management. As stated in the Shell Annual Report of 2019, the future production of hydrocarbon mainly depends on the delivery of integrated and large projects. The Projects & Technology Organization focuses on cost-effective measures of delivering their projects through the chain of supply management, commercial agreements, and engineering and construction projects by simplifying and planning the process of delivery.

The segments in reporting are Upstream, Downstream, corporate, and Integrated Gas, according to the Shell Annual Report of 2019. Upstream merges the Upstream operating segments which are managed by the Upstream Organization with the oil sands managed by the Downstream Organization because they have the same characteristics concerning economics. The corporate segment is made up of the self-insurance activities, holdings and treasury organization and headquarters and central functions. According to the Shell Annual Report of 2019, Technology and innovation are vital to the company because it enables them to meet the world's demand for their products. They therefore have to keep up with a relevant technology system to avoid negative effects on the delivery of services. The technology which is mainly their specific research centers are situated in the Netherlands, India, the USA, and main centers in Brazil, Germany, Qatar, Oman and China.

The Royal Dutch Shell PLC tells us that the company has 5177 corporate families. The top competitors of The Royal Dutch Shell Company are SHV Energy, PetroChina, SABIC, Chevron, ExxonMobil, Total and British Petroleum. PetroChina provides petroleum-related services and products. SHV Energy is responsible for providing clean energy and low-carbon solutions to residential and business customers. SABIC deals with diversified chemicals while Total is known to be a gas and oil company. The ExxonMobil corporation mainly focuses on being a gas and oil company which is responsible for providing energy. The petroleum British company is a petroleum oil company which works with downstream, upstream, and also renewable. Chevron is a technology and energy company.

The Royal Dutch PLC (2020) states that the Non-executive Director, Linda Stuntz and the Deputy Chair and Senior Independent Director, Gerald Kleisterlee, were not allowed to stand for elections as company directors in the 2020 Annual General Meeting Conference because they had served as directors for nine years. They served the company diligently and the board was deeply grateful for their service. Euleen Goh, who was a Non-executive Director was appointed Deputy Chair and Senior Independent Director in May 2020, thus succeeding Mr. Kleisterlee. Neil Carson, who tends to be a director of the Non-executive was selected to be the chair of the Remuneration Committee in May 2020, thus succeeding Mr. Kleisterlee.

According to the BBC News of 17th January 2017, The Royal Dutch Shell Company issued a profit warning after making less money than their expectations in the 2013 quarter-final. The Chief Executive, Ben van Beurden, said in a statement that the 2013 performance was not what he expected. He then said that they would focus on improving the financial results of Shell to achieve better capital efficiency. Towards the end of 2019, the Royal Dutch Shell Company reported a 50% drop in profits. It missed its 2020 target of completion for investor payouts. The

income in net worth changed to the cost of supply dropped to \$2.9 billion in September 2019 compared to \$5.7 billion in September 2018. The earnings for 2019 were 23% lower at \$16.5 billion.

Several lawsuits have been filed against the Royal Dutch Shell Company over the recent years according to the Shell Annual Report of 2018. Shell together with chemical agricultural pesticide manufacturers in combination with different distributors sued for contamination of groundwater by applying chemical pesticides. The company defended the lawsuits. An environmental regulatory measure was set up in California which required monthly or quarterly sampling of sources of water for drinking to be chemical contained in pesticides which was effective from January 2018. There is also the climate change litigation in the USA whereby the complainants complained that the rise of the sea levels which was caused by climatic changes resulting from fossil fuel to be products from companies harm their infrastructure. Various lawsuits have been filed against the company including the Brazil Tax and Nigerian litigation. The company management always hopes for a ruling that is favorable to Shell according to the Shell Annual Report of 2018.

According to the Shell Annual Reports, the company has acquired seven companies in the last five years. Its largest acquisition was the BG Group in the year 2015 for \$72.4 billion. The company has also sold 15 assets. It sold the Royal Dutch Shell – UK North Sea Assets to Chrysaor Holdings for \$3.8billion. The company has acquisitions in three different US states and four countries. After acquisition concerning Group shell of BG they merged with it thus becoming second to be in the list containing the biggest energy companies after ExxonMobil which was ranked by the market of capitalization. The strategy of Shell focuses on strengthening their top position as being a leading company in energy provision. The acquisition

of the BG Group made it easier to create a much simpler company that delivers better services. The company also aims at the reduction of Net Carbon Footprint which is contained in their products. In achieving these ambitions, the company is bent on providing a world-class big investment case by the growing cash-free flow which n returns increases generation in returns. The company bents to thriving with an energy sector in which they respond to society demands for competitive, convenient and cleaner energy. It also wishes to sustain stronger society licensing in order of operating and making more positive contributions to society to all of its activities.

Part (b)

(1) Calculation of profitability

The Profits ratios which form the financial values are mainly profitable to investors who use it together with the analysts as they use it in measuring evaluating the company's strengths in generating profits at specific periods in the year. Profitability ratios outline how a company mainly is utilizing the assets in the generation of values and profits and for the shareholders of the company. Higher profitability ratios mean that the company is doing well. The ratios are vital when compared with the ratios of competitor companies in order to know where the company in question stands. They are two ways of the company's profitability ratios which are the return and margin ratios. The ratios of margin can be categorized into the net profit margin, gross profit margin, EBIT, EBITDA, NOPAT, EBITDAR, flow of the cash margin, overhead ratios with operating expense ratios. The ratios in return on other hand include asset return, debt return, equity return, the return of the cash on assets, revenue return, retained return on earnings, capital return on invested, capital return on employed, and adjusted on the risk-return.

(a) Gross Profit Margin

This is the comparison of gross profit to sales revenue and expressing the value in percentage form. It shows the business earnings taking into consideration the cost of production.

The Gross profit margin = $\frac{\text{Gross profit}}{\text{Sales of total revenue}} \times 100\%$

Sales of total revenue

$$31^{\text{st}} \text{ December 2015 Gross profit margin} = \frac{42.221b}{265b} \times 100\% = 15.93\%$$

$$31^{\text{st}} \text{ December 2016 Gross profit margin} = \frac{42.583b}{233.6b} \times 100\% = 18.23\%$$

$$31^{\text{st}} \text{ December 2017 Gross profit margin} = \frac{55.08b}{305.2b} \times 100\% = 18.05\%$$

$$31^{\text{st}} \text{ December 2018 Gross profit margin} = \frac{67.01b}{388.4b} \times 100\% = 17.25\%$$

$$31^{\text{st}} \text{ December 2019 Gross profit margin} = \frac{65.456b}{344.9b} \times 100\% = 18.98\%$$



(b) Operating profit margin

$$\text{Operating profit margin} = \frac{\text{Operating profit}}{\text{Sales}} \times 100$$

$$2015 = \frac{2047}{272156} \times 100 = 0.7\%$$

$$2016 = \frac{5606}{240033} \times 100 = 2.3\%$$

$$2017 = \frac{18130}{311170} \times 100 = 5.8\%$$

$$2018 = \frac{35621}{396556} \times 100 = 9.0\%$$

$$2019 = \frac{25485}{352106} \times 100 = 7.2\%$$



(c) Net Profit Margin

$$\text{Net Profit Margin} = \frac{\text{Profit after tax}}{\text{Sales}} \times 100$$

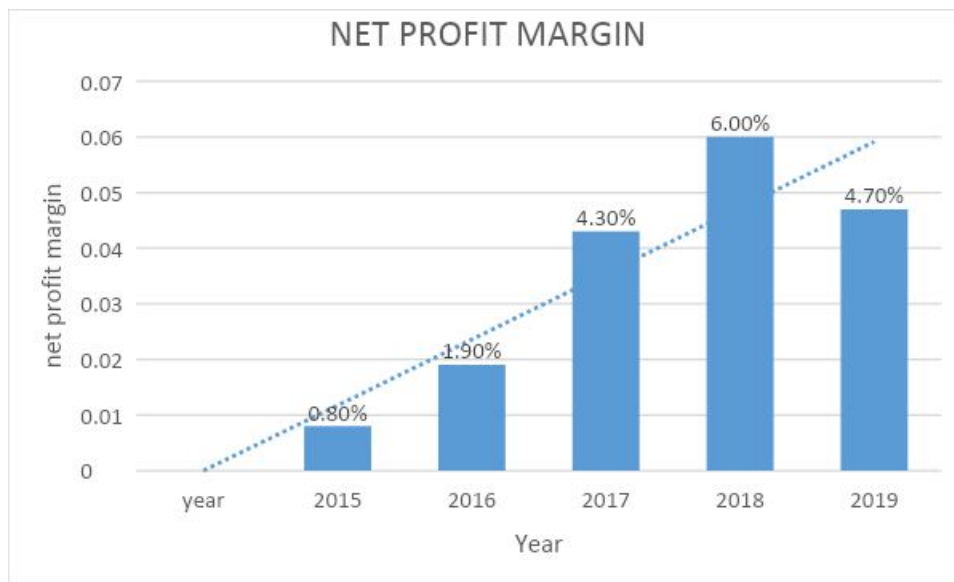
$$2015 = \frac{2200}{272156} \times 100 = 0.8\%$$

$$2016 = \frac{4777}{240033} \times 100 = 1.9\%$$

$$2017 = \frac{13435}{311870} \times 100 = 4.3\%$$

$$2018 = \frac{23906}{396556} \times 100 = 6.0\%$$

$$2019 = \frac{16432}{352106} \times 100 = 4.7\%$$



(d) Return on Investment

$$\text{Return on Investment} = \frac{\text{Net profit}}{\text{Total assets}}$$

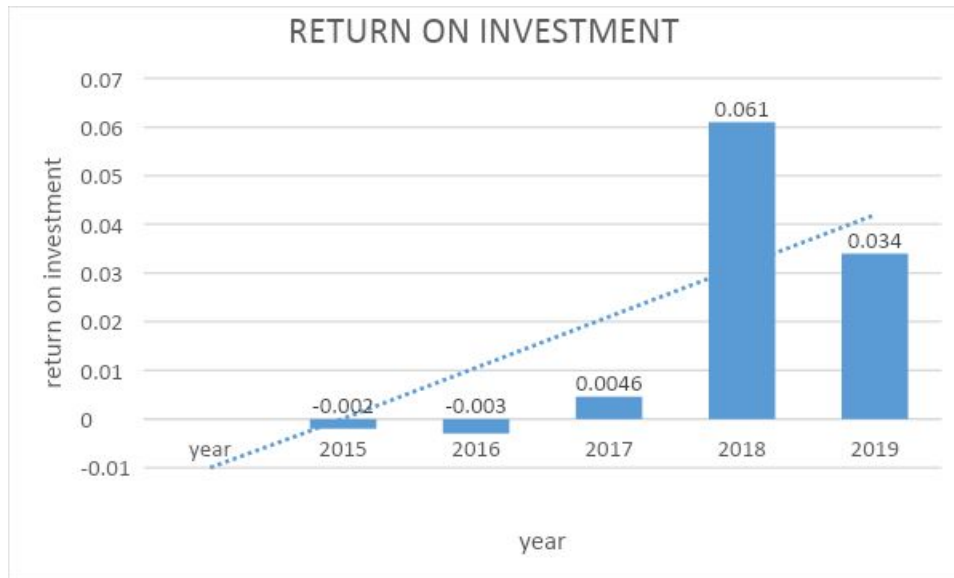
$$2015 = \frac{811}{340157} = -0.002$$

$$2016 = \frac{1374}{411275} = -0.003$$

$$2017 = \frac{18828}{407097} = 0.046$$

$$2018 = \frac{24475}{399194} = 0.061$$

$$2019 = \frac{13773}{404336} = 0.034$$



(2) Liquidity Ratios

(a) Current ratio

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current liabilities}}$$

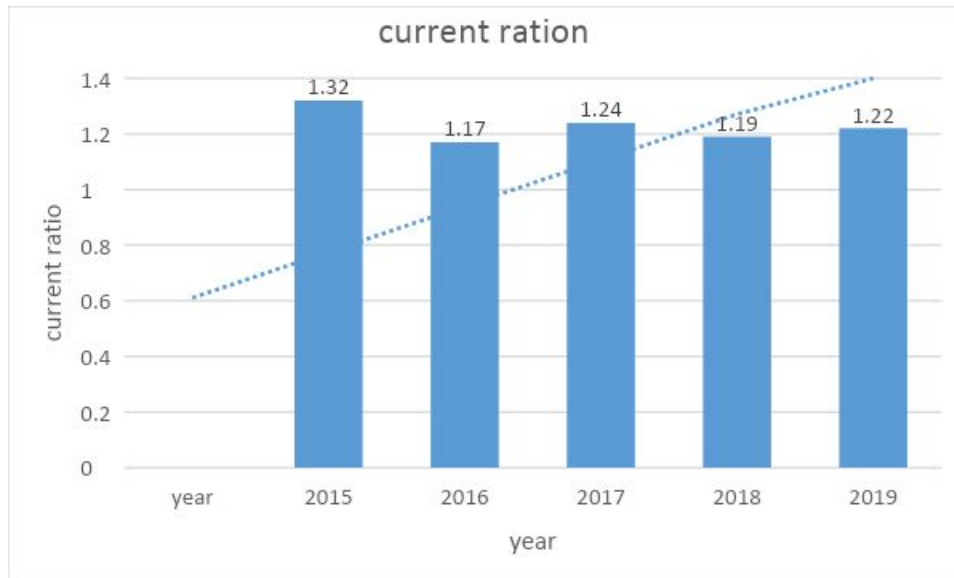
$$2015 = \frac{93358}{70948} = 1.32$$

$$2016 = \frac{86569}{73825} = 1.17$$

$$2017 = \frac{95404}{79767} = 1.24$$

$$2018 = \frac{92689}{77813} = 1.19$$

$$2019 = \frac{97482}{79624} = 1.22$$



(b) Acid ratio test asset

$$\text{Acid asset test ratio} = \frac{\text{Current assets} - \text{stock}}{\text{Current liabilities}}$$

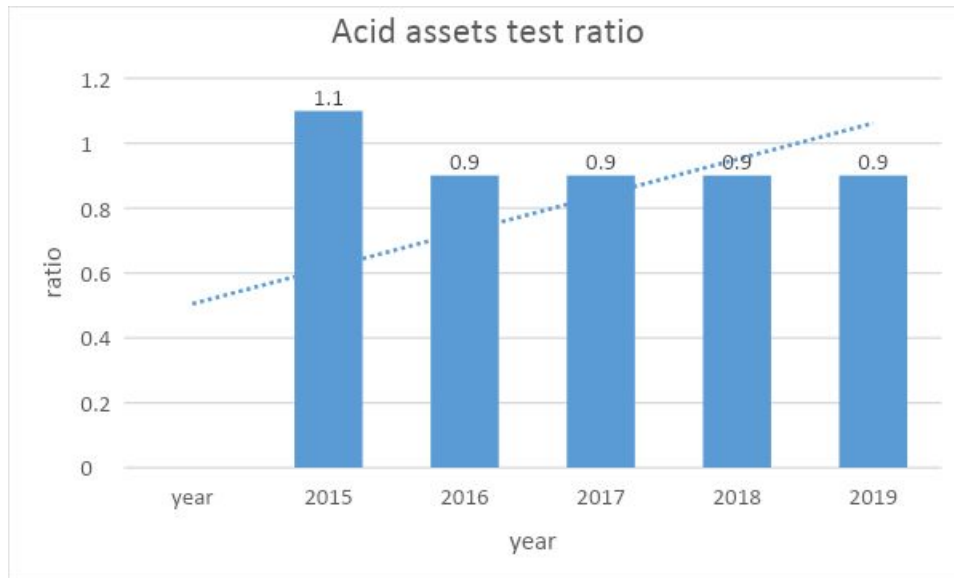
$$2015 = \frac{93358 - 15822}{70948} = 1.1$$

$$2016 = \frac{86569 - 21775}{73825} = 0.9$$

$$2017 = \frac{95404 - 25223}{79767} = 0.9$$

$$2018 = \frac{92689 - 21117}{77813} = 0.9$$

$$2019 = \frac{97482 - 24071}{79624} = 0.9$$



(c) Cash Ratio

$$\text{Cash Ratio} = \frac{\text{Cash and cash equivalents}}{\text{Current liabilities}}$$

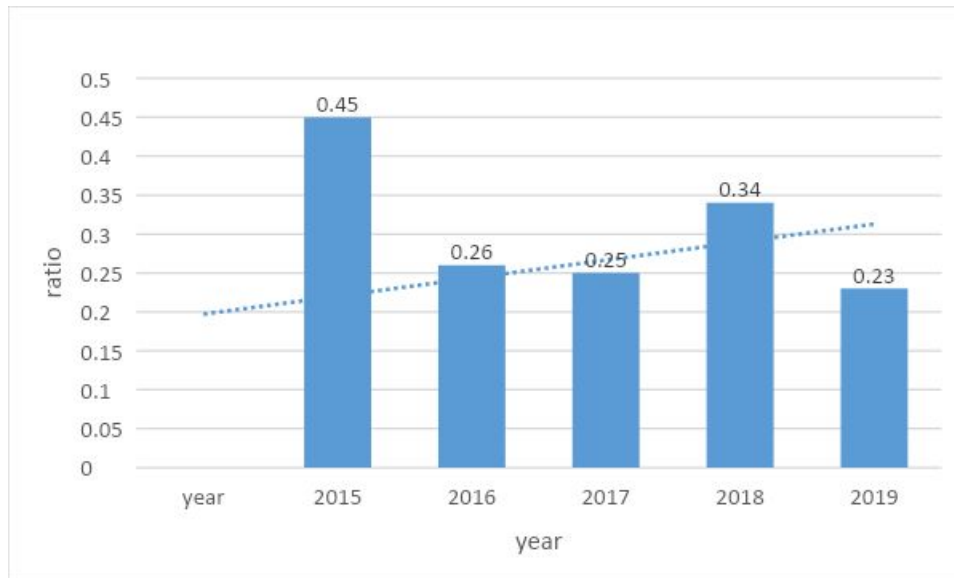
$$2015 = \frac{31752}{70948} = 0.45$$

$$2016 = \frac{19130}{73825} = 0.26$$

$$2017 = \frac{20312}{79767} = 0.25$$

$$2018 = \frac{26741}{77813} = 0.34$$

$$2019 = \frac{18055}{79624} = 0.23$$



(3) Gearing

(a) Debt ratio

$$\text{Debt Ratio} = \frac{\text{Total debt}}{\text{Total Assets}}$$

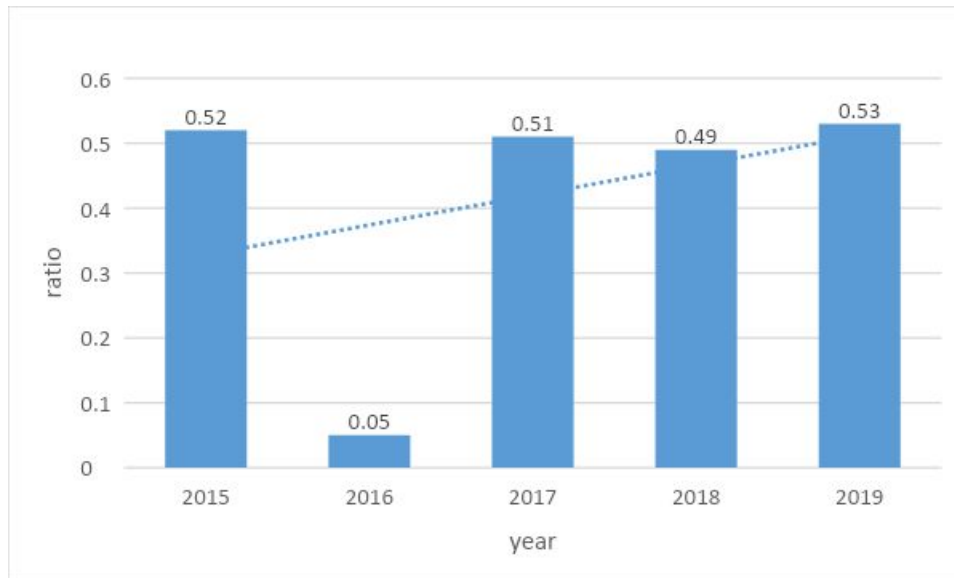
$$2015 = \frac{176036}{340157} = 0.52$$

$$2016 = \frac{22764}{411275} = 0.05$$

$$2017 = \frac{209285}{407097} = 0.51$$

$$2018 = \frac{196660}{399194} = 0.49$$

$$2019 = \frac{213873}{404336} = 0.53$$



(b) Interest Coverage Ratio

$$\text{Interest coverage ratio} = \frac{\text{Profit before interest and tax}}{\text{Interest charges}}$$

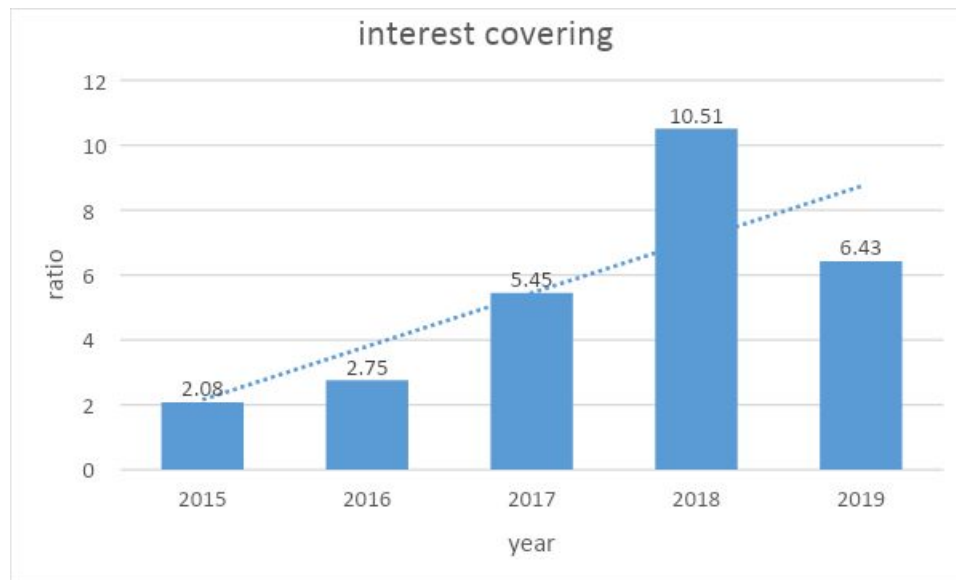
$$2015 = \frac{3935}{1888} = 2.08$$

$$2016 = \frac{8809}{3203} = 2.75$$

$$2017 = \frac{22172}{4042} = 5.45$$

$$2018 = \frac{39366}{3745} = 10.51$$

$$2019 = \frac{30175}{4690} = 6.43$$



(4) Efficiency Ratios

(a) Inventory Turnover

$$\text{Inventory turnover} = \frac{\text{Cost of sales}}{\text{Average stock}}$$

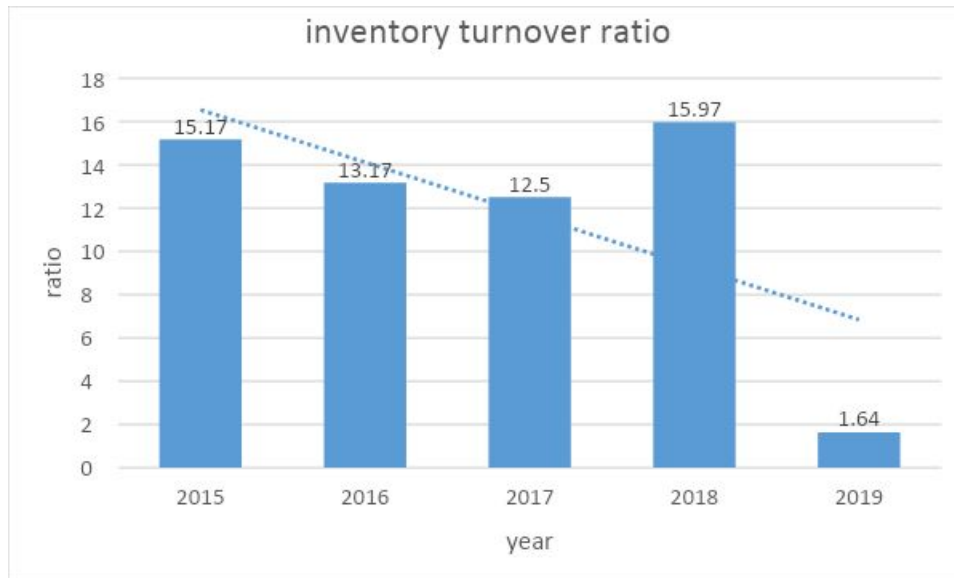
$$2015 = \frac{270109}{17796.5} = 15.17$$

$$2016 = \frac{234427}{17796.5} = 13.17$$

$$2017 = \frac{293740}{23499} = 12.5$$

$$2018 = \frac{360935}{22594} = 15.97$$

$$2019 = \frac{24071}{23170} = 1.04$$



(b) Accounts receivable turnover

$$\text{Accounts receivable turnover} = \frac{\text{credit sales}}{\text{Average debtors}}$$

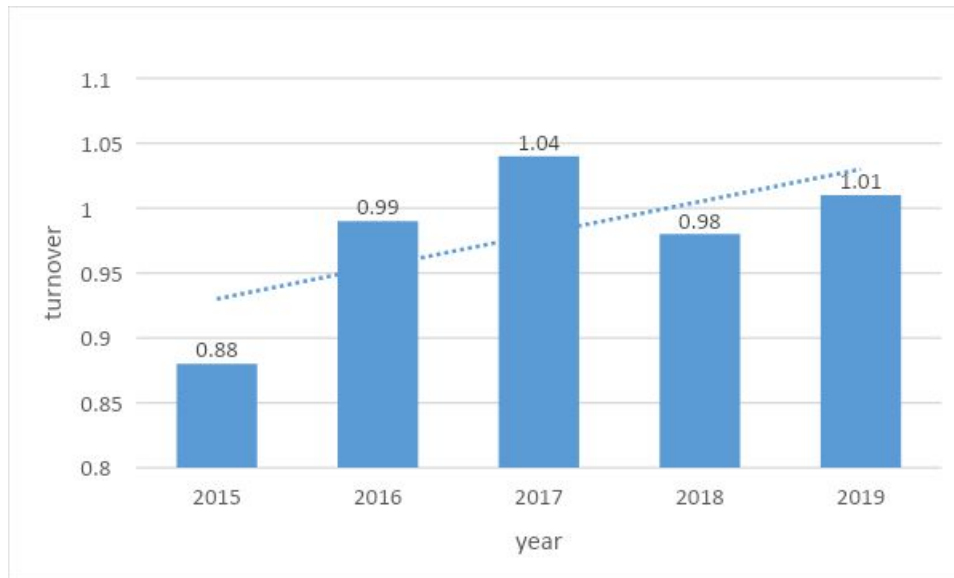
$$2015 = \frac{45784}{52127} = 0.88$$

$$2016 = \frac{45664}{45724} = 0.99$$

$$2017 = \frac{49869}{47766.5} = 1.04$$

$$2018 = \frac{42431}{43498} = 0.98$$

$$2019 = \frac{43414}{42922.5} = 1.01$$



(c) Accounts payable turnover

$$\text{Accounts payable turnover} = \frac{\text{credit purchases}}{\text{Average creditors}}$$

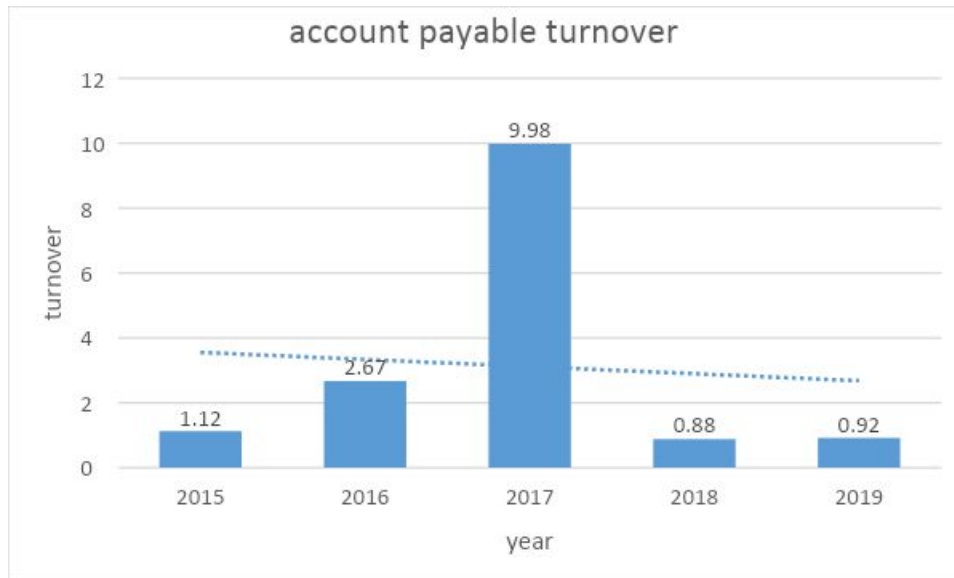
$$2015 = \frac{4528}{4055} = 1.12$$

$$2016 = \frac{15274}{5726.5} = 2.67$$

$$2017 = \frac{56663}{5676.5} = 9.98$$

$$2018 = \frac{2735}{3091} = 0.88$$

$$2019 = \frac{2342}{2538.5} = 0.92$$



(d) Total Assets Turnover

$$\text{Total Assets turnover} = \frac{\text{Sales}}{\text{Total sales}}$$

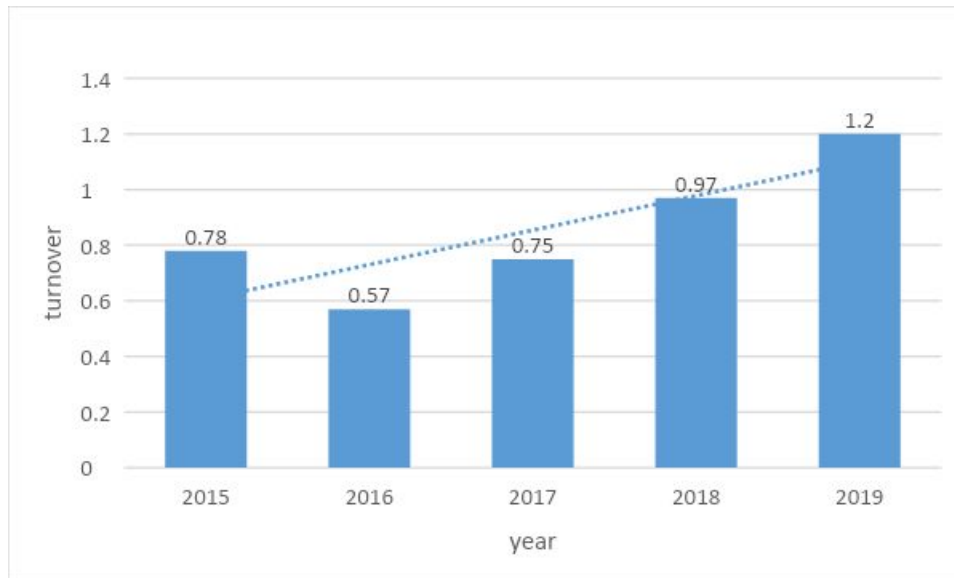
$$2015 = \frac{264960}{340157} = 0.78$$

$$2016 = \frac{233591}{411275} = 0.57$$

$$2017 = \frac{305179}{407097} = 0.75$$

$$2018 = \frac{388379}{399194} = 0.97$$

$$2019 = \frac{404336}{344877} = 1.2$$



Evaluation of financial ratios

(a) Profitability

According to Howe 2013, profitability ratios summarize the company's general performance. Profitability ratios show the company's ability to convert assets to profits. The profitability ratios of the Royal Dutch Shell Company over the past five years are as below according to the calculations:

The gross profit margin of the company increases significantly from 15.93% in 2015 to 18.23% in 2016. It reduces slightly to 18.05% and 17.25% respectively in the years 2017 and 2018. It however increases in the year 2019 to 18.98%. Generally, there has been a steady rise in the profit which was associated with gross margin for more than five years. The rise in gross profit itself over the year's accounts for the proportionate steady rise in gross profit margin. The Operating Profit Margin of Shell increased from 2015 to 2018 but significantly reduced in 2019. The net profit margin and the return on investment also steadily increased over the years but reduced in 2019. The reduction of the profits in 2019 was due to the lowering of gases and oil

prices in the last quarter of the year 2019. There was a fluctuation in oil prices throughout 2019 because the supplies throughout the world were plentiful.

(b) Liquidity Ratios

The current ratios have been almost constant over the past five years with very minimal reductions and increases. The current ratio has generally reduced over five years. The current ratio measures whether the company has enough assets compared to liabilities. A good current ratio range from 1.2 to 2. This shows that the company has enough assets to operate. The current ratios of the Royal Dutch Shell Company shows that the company is generally at a better place to operate because it is more than 1.2 in the years 2015, 2017 and 2019. It is however lower than 1.2 in the years 2016 and 2018 meaning that liabilities in the company's were in comparison of their assets in those years. The Company should therefore work to increase its assets.

The test in acid ratios are used in the measuring of the company's capabilities in paying off their liabilities. A good acid test ratio should range from 1:1 and higher. The acid test ratios for the Royal Dutch Shell Company are 1.1:1 for the year 2015 and 0.9:1 for the years 2016, 2017, 2018, and 2019. The company was at a better place to pay off its liabilities in 2015 but it was not in a better place in the years 2016, 2017, 2018 and 2019. This means that there was a drop in the company's performance over the past five years.

The cash ratio is a measure of the total cash and cash equivalents of the company to its liabilities. A good cash ratio ranges between 0.5 to 1. The cash ratios of the Royal Dutch Shell Company have been below 0.5 over the past five years. Furthermore, they have been deteriorating over the past five years. The company's performance has therefore been dropping over the past five years.

(c) Gearing

The ratios concerning debt are used in indicating the total percentage of which the assets of the company tend to be provided in debt. Investors prefer the company whose ratios in debt ranges from 0.3 to 0.6. The debt ratios for Shell Company for the years 2015, 2016, 2017, 2018 and 2019 are 0.52, 0.05, 0.51, 0.49 and 0.53 respectively. The company has an average debt ratio. Investors can consider investing in the company. A higher debt ratio will chase the investors because it will be difficult to borrow money.

The interest coverage ratios measure the number of times the company is capable of covering due to the current payments concerning the interest with the earnings available. An interest coverage ratio should be at least 2. The Royal Dutch Shell Company has an interest coverage ratio significantly higher than two over the past five years meaning that it is in a better place to cover interest payments.

(d)Efficiency Ratios

The inventory turnover ratio is available at several different times in which stock is sold at a specific period. Its main aim is to assess whether the business has excess stock compared to sales. The inventory turnover of the Royal Dutch Shell Company over the past five years is very high apart from 2019 whereby it is very low at 1.04. This means that over the past years, the company has been producing excessive stock and does not manage to sell the whole of it. It however produced excessively less stock in 2019.

The receivable accounts which are the turnovers are used in referring several how many times per year that business is collecting all of the debts it has. The aim of the accounts receivable turnover is used during the evaluation in the ability of issuing loans to the company's members and customers with efficiency in collecting the loans. The accounts receivable turnover of the Royal Dutch Shell Company over the past five years is low meaning the company collects loans

from its customers very few numbers of times. The company should therefore improve its efficiency in this sector.

The accounts payable turnover indicates the number of times the company can pay off its suppliers in a given period. A higher account payable turnover is recommended. The accounts payable turnover for the Royal Dutch Shell Company has been relatively low over the past five years meaning that the company is not in a very good position to pay its suppliers.

The total assets turnover measures the company's efficient use of its assets to deliver its services. An asset turnover of 2.5 and above is considered favorable. The assets turnover for the Royal Dutch Shell Company has been less than 2.5 for the past five years meaning that the company does not fully utilize its assets to deliver better services.

Competitors of The Royal Dutch Company

ExxonMobil and Shell Company are almost similar in their models. ExxonMobil prides itself in the fact being the leading gas and oil company worldwide and Shell predicts the future of renewables. The ExxonMobil Company is Slightly larger than the Royal Dutch Shell Company. The two companies both invest in the production of natural gas. They both operate with a lower net debt position. ExxonMobil is better in that it has raised its dividends over the past three and half decades in a row while Shell company has not given a raise in its dividends since 2014. The cash flow of the ExxonMobil Company is higher than that of the Royal Dutch Shell Company. Shell and ExxonMobil company both tend to sell oil and gas-solid oil companies but Shell has a bright future because it has a strong LNG portfolio and also their shift to renewables and natural gas places the company in a better position in the future. The history of dividends of the ExxonMobil Company is only a good investment to those who are focused on income rather than growth. This makes Shell better than ExxonMobil.

British Petroleum is a competitor to RDSC. The Upstream to the British Petroleum is more efficient compared to that of the Royal Dutch Shell Company. Its operations are also more environmentally friendly compared to those of Shell. The British petroleum's profits are more focused on oil price amounts of cash. Shell has a more competitive advantage shortly due to renewables. Shell is likely to beat the British Petroleum's Upstream in the near future in terms of efficiency. Shell has been earning higher revenues compared to the British Petroleum because of its large-scale operations. Higher focus on Upstream than downstream by the British Petroleum has disadvantaged the British Petroleum Company. When oil prices crashed in 2014 to 2015 the British Petroleum took a long time to recover as compared to the Royal Dutch Shell Company. British Petroleum however has more consistent reserves compared to the Royal Dutch Shell Company.

The competition between Shell and Total seems to have increased lately with each company preparing itself adequately for the competition by expansion of the companies, product innovation, branding and many others. Recently, Total has been known to acquire struggling companies to boost its expansion. For example, it acquired Caltex in Uganda. Shell on the other hand has opened over fifteen branches in Uganda over the past two years. Shell's strategies seem to be working out compared to Total's strategies because it targets customers as they get out of their homes. Total have crowded their stations in one place thus posing a disadvantage. Shell on the other hand has positioned its stations in a variety of places. This means Shell gets a wide variety of customers. In conclusion, The Royal Dutch Shell Company is way better than most of its competitors. The only competitor posing a great challenge to The Royal Dutch Shell Company is The ExxonMobil Company.

Strategies to improve the performance of The RDC

The RDC could be improved by increasing the gross profit to attain a higher gross profit margin. They should increase their sales volume without increasing the cost of production to gain higher profits. The company should also reduce the wastage of stock by producing only what can be sold. They should avoid producing excessive goods. The company should also integrate new products and services, for example, producing goods that are quality yet have low carbon components. The company should also create strategies to expand their investments to increase the return on investment. The company should remove unprofitable products and services to improve its profitability.

The company should also be creative in increasing their prices. For example, they could reduce the price of one product and increase the price of another to compensate for the price reduction and also generate a little more profit. The company should also work on increasing its assets to improve the liquidity ratio. In addition to that, the company should ensure that they utilize all their assets to improve the efficiency ratios.

The company should also devise ways to operate without polluting the environment. They should find environmentally friendly strategies to operate to reduce the time wastage on courts defending themselves. It should create proper waste management strategies to reduce environmental pollution. The company should also find ways to cut down on the cost of production through technology and innovation. It should also increase its ways of getting higher dividends since it has relaxed in the dividends sector from 2014. Royal Dutch Shell Company could be very better only if they met and formed more strategies to boost their performance.

Part (c)

i. Payback period(PBP)

This is a method where an investment project is accepted or rejected based on the number of years it takes to repay itself the cash inflow to repay the cost.

$$\text{Payback period} = \text{Year before full recovery} + \frac{\text{Cashflow required for full recovery}}{\text{Cash flow of year of full recovery}}$$

(a) Project A

Year	C.F	Cumulative Amount
0	(85)	(85)
1	10	(75)
2	20	(55)
3	40	(15)
4	55	40

PBP is between year 3 and year 4.

$$\text{PBP} = 3 + \frac{15}{55}$$

$$= 3.3 \text{ years}$$

(b) Project B

Year	C.F	Cumulative Amount
0	(90)	(90)
1	25	(65)

2	30	(35)
3	35	0
4	40	40

PBP is between year 2 and year 3

$$\text{PBP} = 2 + \frac{35}{35}$$

$$= 3 \text{ years}$$

Decision criteria

According to the results drawn from the payback period method above, Royal Dutch Shell Company is advised to undertake project B since it has paybacks that are shorter of 3 years in comparison to project B which has a payback period of 3.3 years.

Advantages of Payback season

- I.** useful for budgeting in capital processes for cash in poor firms since it shows projects for investment that have a shorter period of payback which guarantees quick cash inflow.
- II.** easy in calculating and computing.
- III.** A shorter PBP reduces the risk of loss caused by the changing economic conditions and other unforeseen reasons.
- IV.** Investments with shorter PBP makes funds available soon to invest in other profitable projects.
- V.** Shorter PBP improves the liquidity position of affirming quickly hence important to firms in which liquidity is essential.

Disadvantages

- i. The payback process tends not to give or take account time for valuing money.
- ii. The method does not involve useful assets in life and cash inflow after the payback period.
- iii. The accuracy of the output only depends on the accuracy of the input figures provided

(ii). Net Value Present

The method shows the difference of present value inflows of cash over the entire life involving the project and value present in the outflow of cash. It is computed as below;

$$PVIF = (1+r)^{-n}$$

r = rate of return on capital

n= number of years

Project A

$$PVIF = (1+r)^{-n}$$

Year	C.F	PVIF _{10.5%}	Present Value
0	(85)	1.0000	(85.000)
1	10	0.9050	9.0500
2	20	0.8190	16.3800
3	40	0.7412	29.6480
4	55	0.6707	36.8904
NPV			6.9684

Project B

Year	C.F	PVIF _{10.5%}	Present Value
0	(90)	1.000	(90.000)
1	25	0.9050	22.6250
2	30	0.8190	24.5700
3	35	0.7412	25.9420
4	40	0.6707	26.8280
NPV			9.9650

Decision criteria

From the results drawn from the above method, the company should undertake project B since it has a higher NPV of 9.965 compared to project B which has an NPV of 6.9684.

NPV advantages

- i. Recognizing the value of time and money.
- ii. It considers the cash flows occurring during life concerning a project.
- iii. It uses cash flows and not profits.
- iv. It is consistent with wealth maximisation objective.
- v. Ranks the main projects following their profitability.

Disadvantages of NPV

- i. difficult using it in comparison to methods of traditional.
- ii. The capital cost is used as being a discounted rate therefore it assumes the cost of capital is readily available which is impractical.
- iii. It is only ideal in comparing similar projects in terms of useful life and size.

iv. It assumes that future projects will carry the same risks as current projects.

(iii). Accounting Rate of Return (ARR) uses accounting profits to evaluate projects.

$$ARR = \frac{\text{Average profit}}{\text{Average investment}}$$

$$\text{Average Investments} = \frac{\text{Initial Investment} + \text{Salvage Value}}{2}$$

For project A:

Year	1	2	3	4
C. F	10	20	40	55
Depreciation	(21.25)	(21.25)	(21.25)	(21.25)
Profits	(11.25)	(1.25)	18.75	33.7

$$\text{Average Profits} = \frac{18.75 + 33.7 - 11.25 - 1.24}{4} = 9.9875$$

$$\text{Average Investment} = 85$$

$$ARR = \frac{9.9875}{85} = 0.116 = 11.6\%$$

For Project B:

Year	1	2	3	4
C .F	25	30	35	40
Depreciation	(22.5)	(22.5)	(22.5)	(22.5)
Profits	2.5	7.5	12.5	17.5

$$\text{Average Profits} = \frac{2.5 + 7.5 + 12.5 + 17.5}{4} = 10.0$$

$$\text{Average Investments} = 90$$

$$ARR = \frac{10}{90} = 11.1\%$$

ARR advantages

- (a). simple and also its more straight forward in computing
- (b). The main focuses involve accounting and not income operating.

Disadvantages of ARR

- (a). Do not take into account the value of time and the money i.e. money at hand now and money which is to be received for future is considered to be valued equally.
- (b). Mainly focuses wit issues concerning the accounting of the operating net income to flow of cash. Cash flow is important since cash generated quickly enables the firm to invest in other profitable projects.

References

Shell Annual Report 2015

<https://reports.shell.com/annual-report/2015/servicepages/disclaimer.php>

Shell Annual Report 2016

<https://reports.shell.com/annual-report/2016/servicepages/disclaimer.php>

Shell Annual Report 2017

<https://reports.shell.com/annual-report/2017/servicepages/disclaimer.php>

Shell Annual Report 2018

<https://reports.shell.com/annual-report/2018/servicepages/disclaimer.php>

Shell Annual Report 2019

<https://www.shell.com/investors/financial-reporting/annual-publications.html>

Net Present Value Method – explanation, examples and assumptions.

<https://www.accountingformanagement.org/net-present-value-method/>

Adam Hayes (2020). What Everyone Needs to know about liquidity ratios.

<https://www.investopedia.com/terms/l/liquidityratios.asp>

Will Kenton (2020). Efficiency Ratio Definitions.

<https://www.investopedia.com/terms/e/efficiencyratio.asp>

The Group of 77 (G-77) was established on 15 June 1964 by seventy-seven developing countries signatories of the “Joint Declaration of the Seventy-Seven Developing Countries” issued at the end of the first session of the United Nations Conference on Trade and Development (UNCTAD) in Geneva.

Langen, Nina. Ethics in Consumer Choice: An Empirical Analysis Based on the Example of Coffee. Dordrecht: Springer, 2013.

