

DAB-401 Financial Analytics

Financial Analysis on WALMART.INC

Group 5

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Contents:

A. Introduction

- 1.1 History and Current operations
- 1.2 Macroeconomic environment (Walmart PESTLE Analysis)
- 1.3 Business Model
- 1.4 Top Industries competitors

B. Ratio and Valuation Analysis

- 2.1 Income Statement
- 2.2 Balance Sheet
- 2.3 Cash Flow
- 2.4 Financial ratios
- 2.5 CAPM
- 2.6 WACC

C. Technical Analysis

- 3.1 Monte Carlo Simulation
- 3.2 Brownian Method
- 3.3 Trend Analysis
- 3.4 Time Series
- 3.5 Facebook Prophet

D. Recommendations and References

Introduction

Walmart is a global retail company with operations in over 25 nations. It runs a network of grocery stores; budget department stores and hypermarkets. The company's stock is traded in the open market on the NYSE under the ticker WMT. Walmart's most recent fiscal year saw revenues of \$559.15 billion, up 5.9% from the year before. Net income for the business climbed by 4.4% to \$14.9 billion. With an industry-leading operating margin of 4.7% and a robust return on equity (ROE) of 18.2%, Walmart stands out from the competition. Compared to other companies in its sector, the company's total debt of \$52.76 billion is comparatively low, and its operating cash flow came to \$28.18 billion.

Walmart's market capitalization is approximately \$393.85 billion, and its share price has remained comparatively constant over the past year, trading at about \$140 per share. Due to its solid financial condition and data, Walmart is regarded by investors as a safe and reliable investment opportunity.

History and Current operations

Retail, wholesale, and other operations are managed globally by Walmart Inc. The company's name was changed from Wal-Mart Stores, Inc. to Walmart Inc. in February 2018. The company was founded in 1945, with its headquarters in Bentonville, Arkansas.

Sam's Club, Walmart U.S., and Walmart International are the three divisions that make up the company. In addition to membership-only warehouse clubs, e-commerce websites like flipkart.com and samsclub.com, and mobile commerce programmes, it operates supercenters, supermarkets, hypermarkets, warehouse clubs, cash and carry shops, and discount stores. The business sells groceries and consumables, such as dry, chilled, or frozen packaged foods, alcoholic and non-alcoholic beverages, floral, snack foods, candy, and other grocery products.

Additionally, it provides services and goods related to health and wellness, such as pharmacy, over-the-counter medications, various medical supplies, optical and hearing services, and paper products. Additionally, it offers tyre and battery shops, tobacco, gas stations, home improvement, outdoor living, gardening, furniture, clothing, jewellery, housewares, toys, seasonal goods, and third-party gift cards. It also offers tobacco, gas stations, home improvement, outdoor living, gardening, furniture, clothing, jewellery, housewares, and seasonal products. It also has tobacco and petrol stations. Along with petrol, financial services and related products including money orders, prepaid cards, money transfers, cheque cashing and bill payment, the company also offers a variety of instalment loans. It operates over 10,500 shops and various e-commerce platforms throughout 24 countries under 46 brands.

Macroeconomic environment

Walmart PESTLE Analysis: In this PESTLE analysis of Walmart, you'll see how corporations face many challenges, particularly related to the six primary macro-environmental factors, including politics, technology, and legal factors.

1. Political factors: Political (in)stability impacts Walmart's operations.

- Policies can directly affect Walmart's suppliers and operations, such as profit loss in Chongqing, China when Walmart sold prohibited products. Government bills, like raising minimum wage to \$15 an hour, can threaten Walmart's revenue, and failure to comply could result in store closures.

2. Economic factors: A volatile economy leaves Walmart with little option.

- Walmart's low prices are affected by economic stability. If the economy worsens, Walmart may have to raise prices, which may lead to customer dissatisfaction and loss of competitiveness against other brands. Walmart needs to be aware of the economic landscape in each location where stores operate as it can vary based on factors like interest rates or taxes.

3. Sociocultural factors: Failing to position itself to global audiences.

- Walmart's failure to properly market to the German audience cost them over \$1 billion. Global brands need to supply specific products to customers, such as Walmart offering organic and healthy foods for the health-conscious crowd. Walmart has put more focus on eCommerce, allowing customers to order products and pick up groceries, but still faces competition from Amazon. This is beneficial for customers who can't make it to the store, like the elderly.

4. Technological factors: Automation, robotics, and digital transformation.

- Walmart has adopted automation and robotics for efficiency behind the scenes, allowing robots to handle menial tasks while employees focus on selling products, and enabling online shipping to reach more people and set up paid online ads.

5. Legal factors: Failure leads to \$65 million loss.

- Walmart must follow various laws and regulations worldwide, including employment, data protection, labor, and health and safety laws, and settled out of court for \$65 million in California for not providing seating accommodations to employees.

6. Environmental factors: A sewage fiasco

- Walmart receives backlash for improperly dumping pesticide and hazardous fertilizers, which found itself into the sewage pipes. After being caught, the company-initiated Project Gigaton — the premise is about preventing a gigaton of emissions over the next ten years. Several companies, like Target, have made similar eco-friendly promises.

Business model:

With over \$555 billion in net sales in 2021, the company operates a differentiated Omni business model with three primary units comprising Walmart U.S, Walmart International, and Sam's Club (approximately 12% of its net sales) a membership-only warehouse club. Together with Walmart+, a subscription service including unlimited free shipping, unlimited delivery from its stores, and discounts launched in 2021.



Top industrial competitors:

1. **Costco**- Approx market share around 9%.
2. **Loblaws**- Loblaws held the top spot with an estimated 28% share of the grocery retail industry in Canada.
3. **Sobeys**- Market share around 20%.
4. **Metro**- Has about 11% of MS among all.
5. **Target**- lowest among all which is 3.2%.

Walmart earns an average profit of around the US \$1.8 Mn per hour and Walmart is much bigger than re-known retail chains including Home Depot, Target, Costco, Best Buy and Amazon collectively in terms of revenue. All of this started from one man's hope and determination that even a grocery store would work out if they catered to the right audience.

Walmart Inc drops its EPS by 8.48% in 2021, sending the share price lower. The average annual share price decreases of 8.65% are almost like the EPS growth. Though, it seems investors have become more cautious about the company, over time.

Pandemic Bump, weather conditions, survival in competition and recession, etc. all these conditions describe Walmart as not so well positioned and good to invest in stock as of now. Though it is healing day by day, also the roots of Walmart Inc. are strong enough to handle all hurdles.

Ratio and Valuation Analysis

The **current ratio** is a liquidity ratio that measures a company's ability to pay its short-term financial obligations or debts. It is calculated by dividing a company's current assets by its current liabilities.

In this case, Walmart's current assets are \$81,070 and its current liabilities are \$87,379. When we divide the current assets by the current liabilities, we get a current ratio of 0.93.

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

$$= 81,070 / 87,379$$

$$= \mathbf{0.93}$$

When we divide the current assets by the current liabilities, we get a current ratio of 0.93.

A current ratio of less than 1 indicates that a company may have difficulty meeting its short-term financial obligations as they come due. However, a current ratio of greater than 1 generally indicates that a company has enough current assets to cover its short-term liabilities.

Walmart's current ratio of 0.93 suggests that the company may have some difficulty meeting its current financial obligations with its current assets alone. However, it's important to note that the current ratio is just one measure of liquidity, and other factors such as cash flow and access to credit can also impact a company's ability to meet its obligations.

The **quick ratio or acid-test ratio** is a liquidity ratio that measures a company's ability to pay off its short-term liabilities using only its most liquid assets, which are cash, cash equivalents, and accounts receivable. It is a more conservative measure of liquidity than the current ratio, as it excludes inventory, which may take longer to convert into cash.

The formula for the quick ratio is (Current Assets - Inventory) / Current Liabilities. In this case, the current assets of the company are \$81,070, but the inventory, which is less liquid than other current assets, has been excluded, and its value is \$56,511. The current liabilities are \$87,379. Using these values, the quick ratio can be calculated as follows:

$$\text{Quick Ratio} = (\text{Current Assets} - \text{Inventory}) / \text{Current Liabilities}$$

$$= (\$81,070 - \$56,511) / \$87,379$$

$$= \$24,559 / \$87,379$$

$$= \mathbf{0.28}$$

This means that for every dollar of current liabilities, Walmart has only \$0.28 of quick assets available to pay them off. While this ratio is lower than the current ratio of 0.93, it is still considered acceptable for Walmart, as it is above the industry average of 0.2. However, it is important to note that a quick ratio of less than 1.0 indicates that a company may have difficulty meeting its short-term obligations.

Income Statement:

	A	B	C	D	E	F	G	H
1	Walmart Inc.							
2	Consolidated Income Statement							
3								
4	US\$ in millions							
5		12 months ended:	Jan 31, 2023	Jan 31, 2022	Jan 31, 2021	Jan 31, 2020	Jan 31, 2019	Jan 31, 2018
6	Net sales		605,881	567,762	555,233	519,926	510,329	495,761
7	Cost of sales		(463,721)	(429,000)	(420,315)	(394,605)	(385,301)	(373,396)
8	Gross profit		142,160	138,762	134,918	125,321	125,028	122,365
9	Membership and other income		5,408	4,992	3,918	4,038	4,076	4,582
10	Operating, selling, general and administrative expenses		(127,140)	(117,812)	(116,288)	(108,791)	(107,147)	(106,510)
11	Operating income		20,428	25,942	22,548	20,568	21,957	20,437
12	Interest expense, debt and finance lease		(2,128)	(1,994)	(2,315)	(2,599)	(2,346)	(2,330)
13	Interest income		254	158	121	189	217	152
14	Interest, net		(1,874)	(1,836)	(2,194)	(2,410)	(2,129)	(2,178)
15	Loss on extinguishment of debt		—	(2,410)	—	—	—	(3,136)
16	Other gains and (losses)		(1,538)	(3,000)	210	1,958	(8,368)	—
17	Income before income taxes		17,016	18,696	20,564	20,116	11,460	15,123
18	Provision for income taxes		(5,724)	(4,756)	(6,858)	(4,915)	(4,281)	(4,600)
19	Consolidated net income		11,292	13,940	13,706	15,201	7,179	10,523
	Consolidated net (income) loss attributable to noncontrolling interest		—	—	—	—	—	—
20	Consolidated net income attributable to Walmart		11,292	13,940	13,706	15,201	7,179	10,523
21								
22	Source: https://www.stock-analysis-on.net/WSE/Company/Walmart-Inc/Financial-Statements/Income-Statement							

Balance Sheet:

1	Walmart Inc.							
2	Consolidated Balance Sheet: Liabilities and Stockholders' Equity							
3								
4	US\$ in millions							
5		Jan 31, 2023	Jan 31, 2022	Jan 31, 2021	Jan 31, 2020	Jan 31, 2019	Jan 31, 2018	
6	Short-term borrowings	372	410	224	573	5,125	5,257	
7	Accounts payable	53,742	55,261	49,141	46,973	47,060	46,092	
8	Accrued wages and benefits	8,287	7,908	7,654	6,093	6,504	6,998	
9	Self-insurance	4,724	4,652	4,698	4,469	3,979	3,737	
10	Accrued non-income taxes	5,425	5,247	5,328	5,039	2,979	3,073	
11	Opioid litigation settlement	2,949	—	—	—	—	—	
12	Deferred gift card revenue	2,488	2,559	2,310	1,990	1,932	2,017	
13	Other	9,253	7,694	19,976	6,705	6,705	6,297	
14	Accrued liabilities	81,126	86,060	89,966	72,296	72,159	72,122	
15	Accrued income taxes	727	851	242	280	428	645	
16	Long-term debt due within one year	4,191	2,803	3,115	5,362	1,876	3,738	
17	Operating lease obligations due within one year	1,473	1,483	1,466	1,793	—	—	
18	Finance lease obligations due within one year	567	511	491	511	729	867	
19	Current liabilities	92,198	93,379	92,645	77,790	77,477	78,521	
20	Long-term debt, excluding due within one year	34,640	34,864	41,194	43,714	43,520	30,045	
21	Long-term operating lease obligations, excluding due within one year	12,828	13,009	12,909	16,171	—	—	
22	Long-term finance lease obligations, excluding due within one year	4,843	4,243	3,847	4,307	6,683	6,780	
23	Deferred income taxes and other	14,688	15,474	14,370	12,961	11,981	8,354	
24	Long-term liabilities	67,008	65,590	72,320	77,153	62,184	45,179	
25	Total liabilities	159,206	158,969	164,965	154,943	139,661	123,700	
26	Redeemable noncontrolling interest	237	—	—	—	—	—	
27	Common stock	269	276	282	284	288	295	
28	Capital in excess of par value	4,969	4,839	5,646	5,247	2,365	2,648	
29	Retained earnings	83,135	86,904	88,763	83,943	80,785	85,107	
30	Accumulated other comprehensive loss	(11,680)	(8,766)	(11,766)	(12,805)	(11,542)	(10,181)	
31	Total Walmart shareholders' equity	76,693	83,253	80,925	74,669	72,496	77,869	
32	Noncontrolling interest	7,061	8,638	6,606	6,883	7,138	2,953	
33	Total equity	83,754	91,891	87,531	81,552	79,634	80,822	
34	Total liabilities, redeemable noncontrolling interest, and equity	243,157	244,860	252,496	236,495	219,295	204,522	
35	Source: https://www.stock-analysis-on.net/WSE/Company/Walmart-Inc/Financial-Statements/Liabilities-and-Stockholders-Equity							

Cash Flows:

1	Walmart Inc.					
2	Consolidated Balance Sheet: Assets					
3						
4	US\$ in millions					
5		Jan 31, 2023	Jan 31, 2022	Jan 31, 2021	Jan 31, 2020	Jan 31, 2019
6	Cash and cash equivalents	8,625	14,760	17,741	9,465	7,722
7	Receivables, net	7,933	8,280	6,516	6,284	6,283
8	Inventories	56,576	56,511	44,949	44,435	44,269
9	Prepaid expenses and other	2,521	1,519	20,861	1,622	3,623
10	Current assets	75,655	81,070	90,067	61,806	61,897
11	Property and equipment, net	100,760	94,515	92,201	105,208	104,317
12	Finance lease right-of-use assets, net	4,919	4,351	4,005	4,417	7,078
13	Property and equipment, including finance lease right-of-use assets, net	105,679	98,866	96,206	109,625	111,395
14	Operating lease right-of-use assets	13,555	13,758	13,642	17,424	—
15	Goodwill	28,174	29,014	28,983	31,073	31,181
16	Other long-term assets	20,134	22,152	23,598	16,567	14,822
17	Long-term assets	167,542	163,790	162,429	174,689	157,398
18	Total assets	243,197	244,860	252,496	236,495	219,295
19	Source: https://www.stock-analysis-on.net/NYSE/Company/Walmart-Inc/Financial-Statement/Assets					

Financial Ratios:

1) Liquidity Ratio: This ratio indicates a company's capacity to fulfil its short-term financial commitments when they come due.

a) Current Ratio = Current Assets / Current Liabilities

Particulars	Values
Current Assets	81,070
Current Liabilities	87,379
Current Ratio	0.93

b) Acid-test / Quick Ratio (Current Assets - Inventory) / Current Liabilities: Because inventory is less liquid than other current assets, the current ratio is tougher than the current ratio.

Particulars	Values
Current Assets	81,070
Inventory	56,511
Current Liabilities	87,379
Quick Ratio	0.28

c) Cash ratio = Cash + Cash Equivalents / Current Liabilities: It is the most stringent since it solely analyses a company's most liquid assets - cash, cash equivalents, and marketable securities.

Particulars	Values
Cash and Cash equivalents	14,760
Current Liabilities	87,379
Cash Ratio	0.17

Profitability Ratio - P/E Ratio:

2) Profitability Ratio: It measures profitability, which is a way to measure a company's performance

a) Gross Profit Margin = $\frac{\text{Gross Profit}}{\text{Net Sales}}$

Particulars	Values
Net Sales	567,762.00
Gross Profit	138,762.00
GPM	24.44%

b) Net Profit Margin = $\frac{\text{Net Income}}{\text{Total Revenue}}$

Particulars	Values
Net Income	18,836.00
Total Revenue	567,762.00
NPM	3.29%

c) Return on Assets = $\frac{\text{Net Income}}{\text{Total Assets}}$

Name	Values
Net Income	18,836.00
Total Assets	244,860.00
ROA	7.64%

d) Return on equity = $\frac{\text{Net income}}{\text{Shareholders' equity}}$

Name	Values
Net Income	18,836.00
Shareholders' equity	83,253.00
RDE	22.46%

e) Operating profit margin = $\frac{\text{Operating profit}}{\text{Total revenue}}$

Name	Values
Operating Profit	25,942.00
Total Revenue	567,762.00
Operating profit margin	4.57%

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f) Earnings per share (EPS) = $\frac{\text{Net income}}{\text{Average number of outstanding shares}}$

Name	Values
Net Income	18,836.00
Avg Outstanding Shares	2,761.00
EPS	6.77

We captured this information directly from yahoo finance since it was not available on the website we downloaded the Balance sheet from.
13.26 According to Yahoo Finance

3) P/E Ratio = $\frac{\text{Market value per share}}{\text{Earnings per share (EPS)}}$

Name	Values
Market Value Per Share	150.80
EPS	6.77
PE Ratio	22.27

Dividend pay-out Ratio:

4) Dividend Payout Ratio = Dividends / Net income

Name	Values
Dividends	6212.25
Net Income	18696.00
Dividend Payout Ratio	33.23%

Debt to Equity Ratio:

5) Debt to Equity Ratio = Total Debt (total Liabilities)/ Shareholders' Equity

Name	Values
Total Debt	152,969
Shareholder's equity	83,253
Debt to Equity	183.74%

Growth Rate (Considering Total Revenue as a factor for 5 years)

5) Growth Rate(Considering Total Revenue as a factor for 5 years)

Name	Values
Total Revenue - 2018	495,761.00
Total Revenue - 2019	510,329.00
Total Revenue - 2020	519,926.00
Total Revenue - 2021	555,233.00
Total Revenue - 2022	567,762.00
Debt to Equity	2.75%

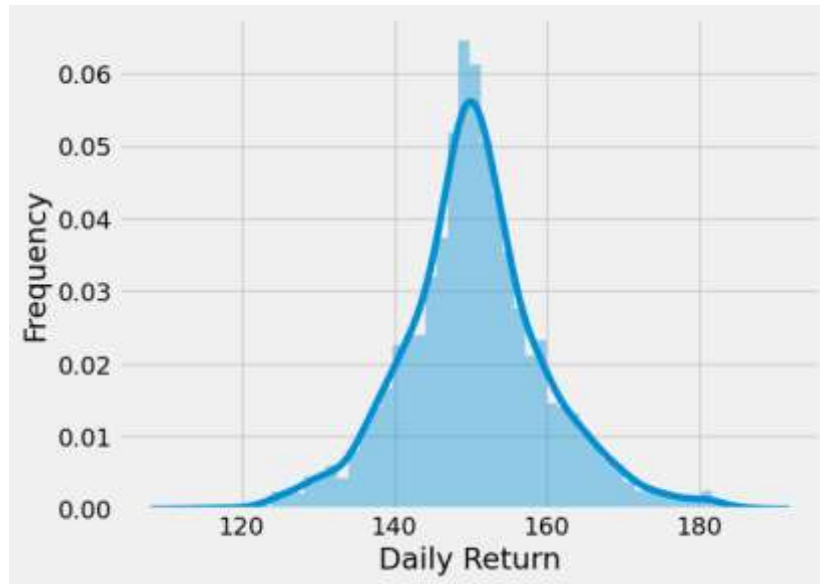


CAPM analysis:

Beta(5yrs Monthly)	0.49	https://finance.yahoo.com/quote/XOM.SW/key-statistics					
Beta (Calculated)	0.50	<1					
Treasury Yield 10 Years(Rf)	3.53%	https://finance.yahoo.com/bonds					
Monthly Return(Rm)	1.01						
% Monthly Return (Rm)	0.71%						
Annual Compounded Return	8.90%						
$R_a = R_f + \beta_a (R_m - R_f)$							
Required retrun for the assest or investment(Ra)	6.20%						

Technical Analysis

Monte-Carlo Simulation:



The Monte-Carlo simulation represents the normal distribution (a bell-shaped curve) in which almost all the data points fit perfectly.

Brownian Method:

Average Return	-0.0000461
Variance	0.000278374
Standard Deviation	0.016684541
Drift	-0.008388402
Next day forecast	153.6040922

The Brownian method is for calculating the next day's stock price which on comparison was accurate to the next day's real price.

Trend Analysis:



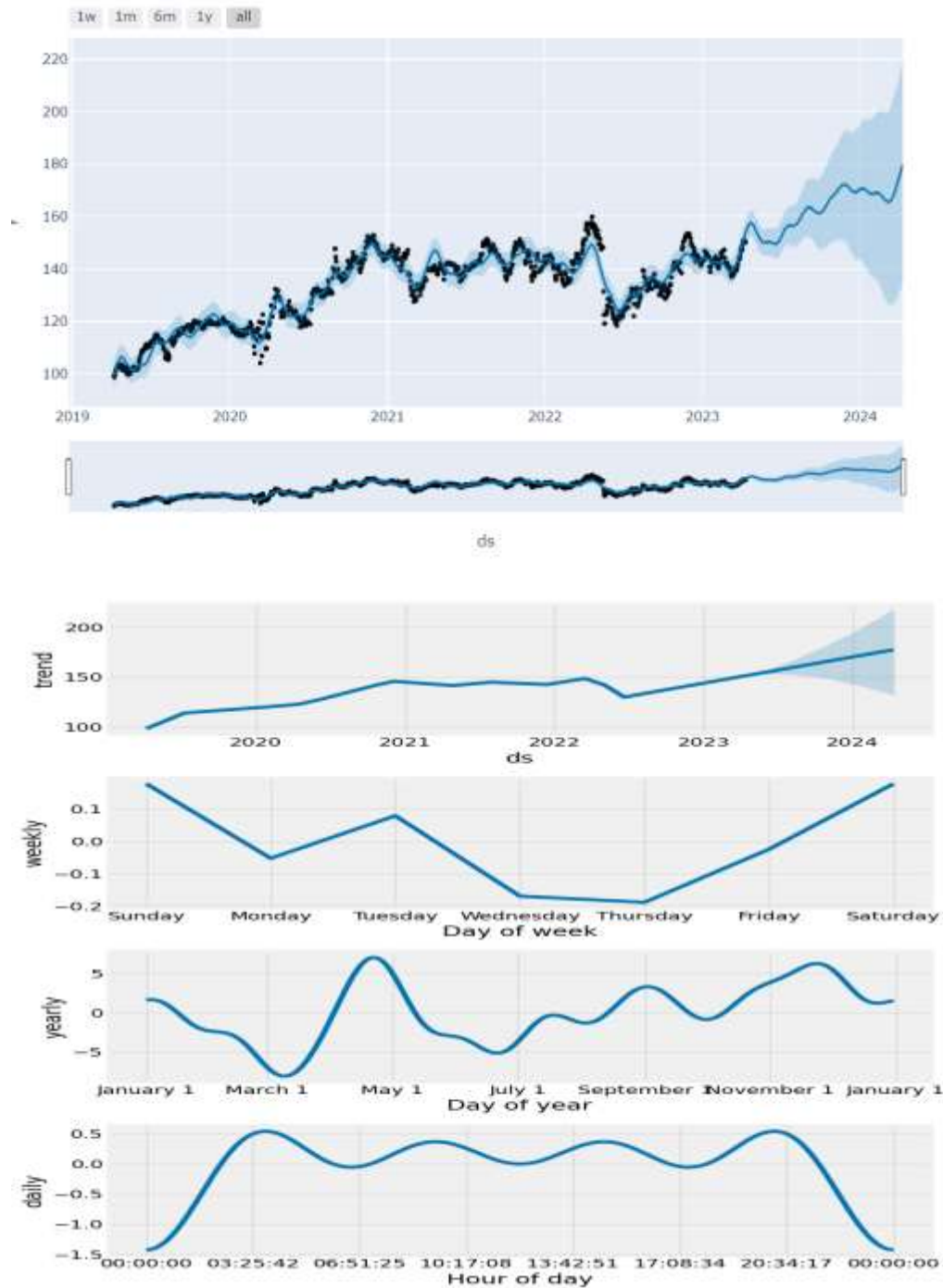
Here the Trend Analysis is being created with 50-SMA and 100-SMA indicators.

Time Series:



The Time Series method is used to generate the buy and sell signal based on the trend changing over time to book profit and re-enter during the dip.

Facebook Prophet:



This method is used to forecast the time-series method based on the Bayesian approach it includes trend, seasonality, and holiday effects. It is also used to predict the yearly, monthly, and weekly as well.

Recommendation & Conclusion

- Walmart is a major global retailer whose stock is regarded as a blue chip. Walmart's fundamentals may be shifting from what was formerly thought of as a value investment.
- Costco and Amazon can't match the company's impressive financial performance.
- Walmart outperforms its two main competitors in terms of price-to-earnings and price-to-book ratios, but falls short in terms of return on equity, debt-to-equity ratio, and current ratio.

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