A Comparative Financial Analysis Between World Top Two E-Commerce Companies: Amazon and Alibaba

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Abstract

Now in our daily life, the Internet plays an important role. Almost daily, we use the Internet for every single work. Nowadays, people are likely to buy and sell products and services over the electronic system, and they are reliable and comfortable using e-commerce. From pin to ship, everything is available on the web. Commercial markets are transforming into e-commerce centers now. People generally avoid visiting crowded markets rather than prefer online shopping, which is more convenient because of their busy schedules and provides them with a relaxed shopping environment. Now, various social e-commerce sites are available for customers world-wide. In the present study, we will do a comparative analysis of the financial statements of two international e-commerce companies, Amazon and Alibaba. Amazon is an American-based multinational e-commerce company, while Alibaba is a China-based global e-commerce company. Using ten years (from 2010 to 2020) secondary data, we will analyze the financial performance of companies by using the five-way DuPont Model. DuPont model is the most important model for measuring the R.O.E. of companies. This study will evaluate the best among the two selected companies, Amazon and Alibaba.
Key Words: E-Commerce, R.O.E., DuPont Model.

1. Introduction

E-commerce, commonly known as e-commerce, is an industry where products or services are sold on electronic systems, e.g., the Internet and other computer networks. Electronic commerce draws on mobile commerce, electronic funds transfer, supply chain management, Internet marketing, online transaction processing, electronic data interchange (E.D.I.), inventory management systems (IMS), and automated data collection systems (ADCS). Modern electronic commerce typically uses the World Wide Web at least one point in the transaction's lifecycle. However, it may encompass a broader range of e-mail, mobile devices, social media, and telephones. E-commerce is generally considered to be the sales aspect of e-business. It also involves exchanging data to facilitate business transactions' financing and payment aspects. It is an effective and efficient way of communicating within an organization and one of the most effective and valuable ways of conducting business. The most famous medium in which e-Commerce is completed is the Internet. However, it does not include transactions over telephone, fax, or online payments for transactions whose terms& conditions were negotiated offline or by physical means.

1.1 Why E-Commerce

With the increasing diffusion of I.C.T.s, particularly the Internet, the global business community is rapidly moving towards Business-to-Business (B2B) e-Commerce. The buyers/ importers gain a clear advantage when the Internet gives them access to the global market. They can compare prices across regions, determine whether prices vary by order fragmentation, get awareness about substitute/ alternative products. Online grocery shopping is one of the fastest-growing segments within the grocery market, allowing shoppers to access various products online, compare product prices, and schedule home delivery. The quantity of the global online grocery market was valued at $189.81 billion in 2019. Moreover, it is projected to grow by 24.80% annually from 2020 to 2027 (grandviewresearh.com). Online outfits are rolling out this business segment by developing their websites, boosting stock availability, and elaborating their distribution networks. In this context of the economic downturn, online grocers are forced to compete on price as consumers can compare prices by clicking a button on their mobile. Resultantly, the sellers/ exporters ensure that they are well shown in the cyber world through websites and portals. Like purchasers, sellers also benefit from increased and more efficient access to the global market through the Internet. International Institutions such as UNCTAD (United Nations Center for Trade and Development) and W.T.O.(World Trade Organization) have put much focus on the importance of electronic-Commerce for developing countries over the last many years. UNCTAD has special programs to facilitate developing countries to transition into e-Commerce. The W.T.O. has also set rules and guidelines for global e-Commerce transactions.

1.2 Global E-commerce Industry

Consumers readily turn to online shopping with convenience and increasing internet penetration, fuelling the retail market in developed countries. The world's B2C e-commerce industry will generate $4280 billion in 2020, according to www.statista.com, which estimates the market will generate $6388 billion in 2024.The E-commerce share of total global retail sales was 13.60% in 2019, which is rapidly increasing and reached 18.00% in the year 2020, according to

www.statista.com. There were over 3.0 billion internet users world-wide in 2015, and this number goes to 4.66 billion in January 2021 (statista.com). Social media fuel the B2B e-commerce market, aiming to boost electronic business process efficiency. Global B2B e-commerce value in 2018 was $21 trillion, which represents 83% of total e-commerce (unctad.org). E-commerce is considered a separate, profitable field of business, and intermediary actors are updating their B2B business models while embracing aspects of social media.

2. Review of Literature

2.1 History of E-Commerce
- In the 1950's companies began to use computers to store and process internal transaction records.
- By the 1960's businesses that engaged large volumes of transactions had begun exchanging transaction information on punched cards.
- In 1968 Transportation Data Co-ordination Committee (TDCC) was formed by some companies.
- In 1979 ANSI (American National Standards Institute) chattered a new committee to develop uniform E.D.I. (Electron Data Interchange).
- In 1979: Online shopping was invented in the U.K. by Michael Aldrich.
- In 1982: Minitel was introduced nationwide in France by France Telecom and used for online ordering.
- In 1984: World's first recorded B2C online home shopper Mrs. Jane Snowball uses the Gateshead S.I.S./Tesco system to buy groceries.
- In 1987: Swreg began to provide software and shareware authors to sell their products online through an electronic Merchant account.
- In 1990: Tim Berners-Lee wrote the first web browser, Worldwide Web, using a NeXT computer.
- In 1992: J.H. Snider and Terra Ziproryn published Future Shop: How New Technologies will Change the Way We Shop and What We Buy. St. Martin's Press. ISBN 0312063598.
- In 1994, Netscape released the Navigator browser under the code name Mozilla. Pizza Hut offers pizza ordering on its web page. The first online bank opens—attempts to offer flower delivery and magazine subscriptions online. Adult materials also become commercially available, as do cars and bikes. Netscape 1.0 was introduced in late 1994 with SSL encryption that made transactions secure.
- In 1995: Jeff Bezos launched Amazon.com, and the first commercial-free 24 hours, internet-only radio stations, Radio H.K. and Net Radio, started broadcasting. Dell and Cisco begin to use the Internet for commercial transactions aggressively. eBay was founded by computer programmer Pierre Omidyar as Auction Web.

2.2 History of Amazon
Amazon was incorporated in 1994 in the Washington state of America by Jeff Bezos. Initially, the company operated as an online bookstore. Bezos left his employment at D.E. Shaw & Co., where he was the vice-president, and began to work on a business plan. After reading a report about the projected future growth of web commerce, Bezos finally decided to start his new business of

selling books online because literature has great world-wide demand. Amazon was originally founded in a garage of Bezos in Bellevue, Washington. In July 1995, Amazon began its services and sold its first book on Amazon.com. Amazon's sales reached $20000 per weak within two months after establishment. On May 15, 1997, Amazon issued its initial public stock offer for $18 per share under the NASDAQ stock exchange with AMZN. Amazon had not earned any profit till 2001; it made a first profit of $5 million in the fourth quarter of 2001. On the closing of the year, 2010 Amazon's share closed at $180, which was precisely ten times the initial issue price, and now on the 2020 yearly closing, the share price goes to $3256.93, which shows the tremendous success of the company.

2.3   History of Alibaba

Alibaba is a Chinese multinational company founded by Jack Ma and 17 friends and students in Hangzhou, China, in 1999. Alibaba founder Jack Ma was expected to improve the Chinese e-commerce market and provide an international e-commerce platform to Chinese enterprises that help Chinese export products to the global market. Alibaba made its first profit in 2002 after three years of launch. Alibaba has three primary service portals: alibaba.com operates in 240 countries and regions and handles sales between exporters and importers, 1688.com works in China to manage domestic B2B trade in China, and aliexpress.com for the small buyer to purchase small quantities at the wholesale price. In September 2014, Alibaba issued its initial public stock offer for $68 under the New York stock exchange (NYSE). This I.P.O. raised $25 billion for the company and became the most prominent US IPO in history. On a listing day, September 19, 2014, Alibaba share (BABA) was listed on the NYSE and began trading at an opening price of $92.70 and became highly profitable for the initial investors. Alibaba broke the $500 billion valuation mark in January 2018 and became the second Asian company with the highest valuation.

3.   Objectives of the Study

This study aims to analyze the financial statement of two international e-commerce companies, Amazon and Alibaba. Through this analysis, we will evaluate the financial performance of the companies using five steps DuPont Model and find which company is better in comparison to the other one. The broad objectives of this study are as follows-
1.   To study the financial performance of both companies using the DuPont Model.
2.   To examine the profitability of the companies using R.O.E. as per the DuPont Model.

4.   Hypothesis of the Study

H_{01}:   There is no significant relationship between the independent factors and the DuPont model R.O.E. of Amazon.

H_{02}:   There is no significant relationship between the independent factors and the DuPont model R.O.E. of Alibaba.

5.   Research Methodology

This study is based on a descriptive research design. This study uses secondary data of the last ten years (2011 to 2020). The data is collected from the company's annual reports and websites. For DuPont analysis, we mainly used two financial statements of annual reports: Balance Sheet and Income Statement.

DuPont analysis is used to assess the factors which affect the companies financial performance. DuPont analysis calculates Return on Equity (R.O.E.), which indicates how the owner's wealth increases. There are two types of DuPont Analysis. One is three steps DuPont analysis, and the second is five steps DuPont analysis. In this study, we use five steps of DuPont analysis. The five steps DuPont analysis breaks R.O.E. into the following five components-

- **Tax Burden (TB)=** Net Income ÷ Earnings Before Tax (EBT)
- **Interest Burden(I.B.)=** Earning Before Tax (E.B.T.) ÷ Earning Before Interest and Tax (EBIT)
- **EBIT Efficiency(E.E.)=** Earning Before Interest and Tax (EBIT) ÷ Sales
- **Asset Turnover(AT)=** Sales ÷ Total Assets
- **Equity Multiplier/Leverage(EM)=** Total Assets ÷ Total Equity

Multiplying all five components (Ratios) together gives R.O.E.

R.O.E. Equation

$$ROE = \frac{\text{Net profit}}{\text{Equity}} = \frac{\text{Net profit}}{\text{Pretax profit}} \times \frac{\text{Pretax profit}}{\text{EBIT}} \times \frac{\text{EBIT}}{\text{Sales}} \times \frac{\text{Sales}}{\text{Assets}} \times \frac{\text{Assets}}{\text{Equity}}$$

6. DuPont Analysis and Interpretation

6.1 Tax Burden

	Amazon			Alibaba		
Year	**Net Income Million US $**	**EBT Million US $**	**Factor**	**Net Income Million US $**	**EBT Million US $**	**Factor**
2011	643	934	0.69	177	289	0.61
2012	116	544	0.21	662	866	0.76
2013	345	506	0.68	1352	1627	0.83
2014	-278	-111	2.50	3720	4320	0.86
2015	618	1568	0.39	3896	5215	0.75
2016	2467	3892	0.63	11083	12635	0.88
2017	3037	3806	0.80	6345	8721	0.73
2018	10064	11261	0.89	10201	16007	0.64
2019	11602	13976	0.83	13053	14337	0.91
2020	21315	24178	0.88	21080	23535	0.90

Source: Author's Computation

Amazon shows a tremendous increase in the E.B.T. and Net Income during the last ten-year period. Amazon's financial statements show US$ 643 million Net Income in the year 2011, which goes to US$ 21315 million in the year 2020. It has established an average growth of 321.49% per annum. E.B.T. of Amazon was US$ 934 million in the year 2011, which goes to US$ 24178 million in the year 2020, which has recognized an average growth of 248.87% per annum. Amazon's tax burden factor was highest in 2014, but Amazon earned a loss this year. This year, Amazon's

highest tax burden factor was 0.89 in 2018. Amazon recognizes a tremendous increase in the tax burden factor, which goes from the lowest 0.21 in 2012 to the highest 0.89 in 2018. At the same time, Alibaba's E.B.T. has increased from US$ 289 million in the year 2011 to US$ 23535 million in the year 2020, which shows an average growth of 804.36% per annum. At the same time, the Net Income of Alibaba has gone to US$ 21080 million in the year 2020 from US$ 177 million in the year 2011.It shows an average growth of 1180.96% per annum. Alibaba's tax burden factor is highest in 2019, 0.91, and lowest in 2011, 0.61. In ten year study period, Alibaba's Net Income growth is 3.67 times the Net Income growth of Amazon, and E.B.T. growth is 3.23 times of the E.B.T. growth of Amazon. This analysis found that Alibaba has a high growth company compared to Amazon regarding E.B.T. and Net Income.

6.2   Interest Burden

	Amazon			Alibaba		
Year	**EBT Million US $**	**EBIT Million US $**	**Factor**	**EBT Million US $**	**EBIT Million US $**	**Factor**
2011	934	862	1.08	289	197	1.47
2012	544	676	0.80	866	806	1.07
2013	506	745	0.68	1627	1758	0.93
2014	-111	178	-0.62	4320	4024	1.07
2015	1568	2233	0.70	5215	3760	1.39
2016	3892	4186	0.93	12635	4584	2.76
2017	3806	4106	0.93	8721	6981	1.25
2018	11261	12421	0.91	16007	11129	1.44
2019	13976	14541	0.96	14337	8506	1.69
2020	24178	22899	1.06	23535	12993	1.81

Source: Author's Computation

EBIT of Amazon increased from US$ 862 million in the year 2011 to US$ 22899 million in the year 2020. The average growth rate in the EBIT of Amazon is 255.65% per annum. While with an average growth of 649.54% per annum, Alibaba's EBIT is increased from US$ 197 million in the year 2011 to US$ 12993 million in the year 2020. During ten years, both companies earn other income, which is more from the interest expenses in many years. Due to this additional income, we get the interest burden factor of more than 0.99. Nine out of ten-year period, the interest burden factor of Alibaba is more than one, which shows that Alibaba earns more another income year by year compared to Amazon. In terms of EBIT, Alibaba has a high growth company compared to Amazon because the EBIT growth of Alibaba is 2.54 times the EBIT growth of Amazon.

6.3   EBIT Efficiency

	Amazon			Alibaba		
Year	**EBIT Million US $**	**Sales Million US $**	**Factor**	**EBIT Million US $**	**Sales Million US $**	**Factor**
2011	862	48077	0.02	197	1777	0.11
2012	676	61093	0.01	806	3136	0.26
2013	745	74452	0.01	1758	5553	0.32
2014	178	88988	0.00	4024	8463	0.48
2015	2233	107006	0.02	3760	12293	0.31
2016	4186	135987	0.03	4584	15686	0.29
2017	4106	177866	0.02	6981	22994	0.31
2018	12421	232887	0.05	11129	39898	0.28
2019	14541	280522	0.05	8506	56152	0.15
2020	22899	386064	0.06	12993	71985	0.18

Source: Author's Computation

Both the companies Amazon and Alibaba mark the steady growth in sales. Amazon's sales reached US$ 386064 million in the year 2020 from US$ 48077 million in the year 2011. At the same time, sales of Alibaba were US$ 1777 million in the year 2011, which is reached US$ 71985 million in the year 2020. During the ten years, Amazon's sales grew by an average of 70.30% per annum, and Alibaba's sales grew by 395.09% per annum. Growth in sales of Alibaba is 5.62 times of growth in sales of Amazon's. It means that Alibaba's sale has increased by 5.62 times higher than the sales of Amazon. The business of Amazon is more increased from the company of Alibaba. Amazon's sales were 27.06 times that of Alibaba's sales in 2011. Due to the high growth rate in sales of Alibaba, this difference of 27.06 has decreased and reached only 5.36 times in the year 2020. Due to increased growth in sales, the EBIT efficiency factor of Alibaba is very high in comparison to Amazon in all the years.

6.4   Asset Turnover

	Amazon			Alibaba		
Year	**Sales Million US $**	**Total Assets Million US $**	**Factor**	**Sales Million US $**	**Total Assets Million US $**	**Factor**
2011	48077	25278	1.90	1777	5648	0.31
2012	61093	32555	1.88	3136	7393	0.42
2013	74452	40159	1.85	5553	10261	0.54
2014	88988	54505	1.63	8463	17981	0.47
2015	107006	64747	1.65	12293	41206	0.30
2016	135987	83402	1.63	15686	56521	0.28
2017	177866	131310	1.35	22994	73630	0.31

2018	232887	162648	1.43	39898	114326	0.35
2019	280522	225248	1.25	56152	143801	0.39
2020	386064	321195	1.20	71985	185429	0.39

Source: Author's Computation

The total assets of Amazon and Alibaba have increased regularly. In the ten years, the total assets of Amazon go to US$ 321195 million from US$ 25278 million with an average growth of 117.07% per annum. At the same time, Alibaba's total assets go to US$ 185429 million from US$ 5648 million, with an average increase of 318.31% per annum during the same period. We found that the total assets of Alibaba have grown 2.72 times higher than Amazon. Still, if we see the asset turnover ratio, then we found that the sales of Alibaba are very low for this amount of investment in comparison to Amazon. We get that Amazon has a good asset turnover factor each year compared to Alibaba from the asset turnover factor. We found that Amazon has generated more sales at a low investment than Alibaba.

6.5 Equity Multiplier/Leverage

	Amazon			Alibaba		
Year	Total Assets Million US $	Total Equity Million US $	Factor	Total Assets Million US $	Total Equity Million US $	Factor
2011	25278	7757	3.26	5648	4240	1.33
2012	32555	8192	3.97	7393	5384	1.37
2013	40159	9746	4.12	10261	1763	5.82
2014	54505	10741	5.07	17981	6561	2.74
2015	64747	13384	4.84	41206	25393	1.62
2016	83402	19285	4.32	56521	38700	1.46
2017	131310	27709	4.74	73630	46654	1.58
2018	162648	43549	3.73	114326	69578	1.64
2019	225248	62060	3.63	143801	90681	1.59
2020	321195	93404	3.44	185429	122945	1.51

Source: Author's Computation

The total equity of Amazon and Alibaba has grown regularly. In the year 2011, Alibaba's total equity is less than the total equity of Amazon, but after periodically increasing, the total equity of Alibaba becomes higher than Amazon. In the year 2011, Amazon has US$ 7757 million total equity, which has risen by average growth of 110.41% per annum and goes to US$ 93404 million in the year 2020. Alibaba's total equity was US$ 4240 million in the year 2011 and reached US$ 164584 million in the year 2020 at an average growth of 279.96% per annum. We already know that lower equity will result from higher debt. From the interest burden factor, we already found that Amazon has a high-interest burden compared to Alibaba. Lowering the interest burden factor will result in a higher equity multiplier/leverage factor. We get the result that Amazon has a high equity multiplier/leverage factor compared to Alibaba, which is not in favor of the company.

6.6 Calculation of Return on Equity (R.O.E.)

Year	Amazon						Alibaba					
	TB	IB	EE	AT	EM	ROE	TB	IB	EE	AT	EM	ROE
2011	0.69	1.08	0.02	1.90	3.26	0.0923	0.61	1.47	0.11	0.31	1.33	0.0407
2012	0.21	0.80	0.01	1.88	3.97	0.0125	0.76	1.07	0.26	0.42	1.37	0.1217
2013	0.68	0.68	0.01	1.85	4.12	0.0352	0.83	0.93	0.32	0.54	5.82	0.7763
2014	2.50	(0.62)	0.00	1.63	5.07	(0.0256)	0.86	1.07	0.48	0.47	2.74	0.5688
2015	0.39	0.70	0.02	1.65	4.84	0.0436	0.75	1.39	0.31	0.30	1.62	0.1571
2016	0.63	0.93	0.03	1.63	4.32	0.1238	0.88	2.76	0.29	0.28	1.46	0.3272
2017	0.80	0.93	0.02	1.35	4.74	0.0952	0.73	1.25	0.31	0.31	1.58	0.1386
2018	0.89	0.91	0.05	1.43	3.73	0.2160	0.64	1.44	0.28	0.35	1.64	0.1481
2019	0.83	0.96	0.05	1.25	3.63	0.1808	0.91	1.69	0.15	0.39	1.59	0.1430
2020	0.88	1.06	0.06	1.20	3.44	0.2310	0.90	1.81	0.18	0.39	1.51	0.1727

Source: Author's Computation

6.7 Graphical Representation of R.O.E.
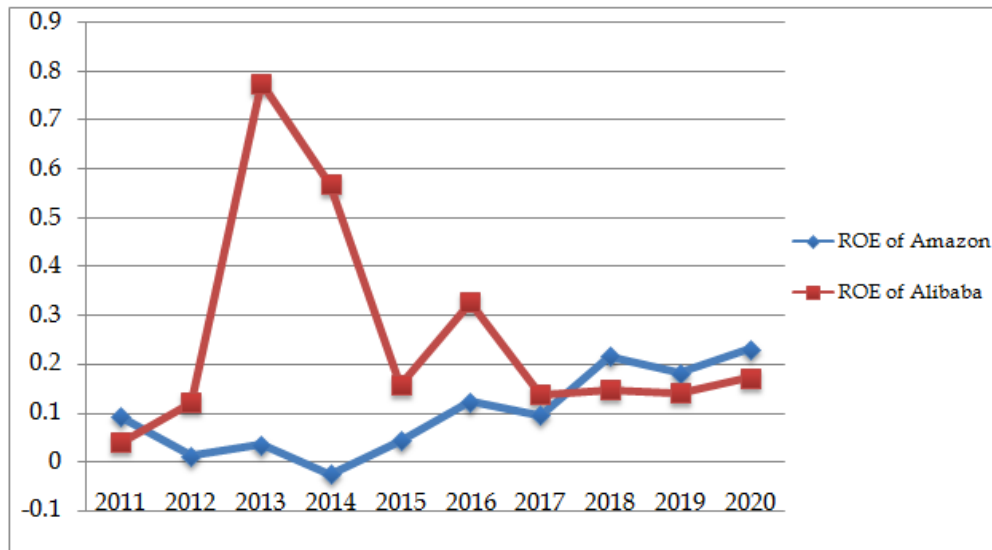
From the graphical representation, we quickly found the difference between the R.O.E. pattern of Amazon and Alibaba. From 2012 to 2017, Alibaba has had higher R.O.E. than Amazon. Nevertheless, in 2011 and from 2018 to 2020, the R.O.E. of Alibaba is lower than Amazon's R.O.E. We found that from 2011 to the R.O.E. of Alibaba highly fluctuates. Still, from 2017 to 2020, Alibaba earns mostly stabilized R.O.E. The R.O.E. of Amazon has been unstable during the ten years. Amazon's R.O.E. is neither on the increasing trend nor stable. Still, we got the result that in the last four years, the R.O.E. of Alibaba is less sensitive while we got high sensitivity in the

R.O.E. of Amazon. From the previous four year results, we found that if the equity investors want high returns, they should invest in Amazon's equity. If they want less risk in their return on investment, then they should invest in the equity of Alibaba because of less sensitivity in the R.O.E.

7. Regression Analysis

7.1 Amazon

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.995a	.991	.979	.0127056

a. Predictors: (Constant), EM, AT, T.B., E.E., IB

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.068	5	.014	84.193	.000b
	Residual	.001	4	.000		
	Total	.069	9			

a. Dependent Variable: ROE
b. Predictors: (Constant), EM, AT, TB, EE, IB

Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	-.348	.174		-1.997	.116
TB	.073	.021	.515	3.413	.027
IB	.116	.032	.663	3.687	.021
EE	4.090	.689	.938	5.938	.004
AT	.063	.048	.186	1.313	.259
EM	.022	.016	.158	1.377	.241

a. Dependent Variable: R.O.E.
Source: Author's Computation

From the regression result, we found that the DuPont model is significant. The P-value under the ANOVA table is 0.000, which is less than the table value 0.05, which indicates that the DuPont model statistically predicts the outcome variable of R.O.E. Due to the lower P-value, we reject the null hypothesis H_{01}. We found the R-Square value of 0.991, which indicates that the independent variables explain 99.10% of the observed variability in R.O.E. We discovered that all the five variables positively correlate with R.O.E. The Beta value of all the independent variables is

positive, suggesting the positive association between the R.O.E. and variables. Beta values theorize that if we increase one unit of TB/IB/EE/AT/EM, then R.O.E. will increase by respective Beta value 0.073/0.116/4.090/0.063/0.022 of such variable.

7.2 Alibaba

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.992[a]	.985	.966	.0433418

a. Predictors: (Constant), EM, AT, T.B., E.E., IB

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.485	5	.097	51.668	.001[b]
	Residual	.008	4	.002		
	Total	.493	9			

a. Dependent Variable: ROE

b. Predictors: (Constant), EM, TB, EE, IB, AT

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.735	.139		-5.291	.006
	TB	-.012	.232	-.006	-.053	.961
	IB	.155	.055	.349	2.829	.047
	EE	.839	.159	.375	5.284	.006
	AT	.817	.455	.291	1.794	.147
	EM	.116	.018	.684	6.288	.003

a. Dependent Variable: R.O.E.

Source: Author's Computation

The regression result of Alibaba indicates that the DuPont model is significant because, under the ANOVA table, we found the P-value 0.001, which is less than the table value 0.05. It indicates that the DuPont model statistically predicts the outcome variable of R.O.E. Due to lower P-value, we reject the null hypothesis H_{02}. In the model summary table, we found the R-square value of 0.985, indicated that the independent variables explain 98.5% of the observed variability in R.O.E. We found that out of five variables Beta value of four variables IB/EE/AT/EM is positive, which suggests a positive relation with R.O.E. In contrast, the variable T.B. has a negative, which indicates a negative association with R.O.E.

8. Conclusion

The main objective of this study is to evaluate the financial performance of the two world's largest e-commerce companies, namely Amazon and Alibaba. This study is based on the five-point DuPont model and was undertaken for ten years from 2011 to 2020. A detailed financial analysis is done on the five points of the DuPont model. We calculate five ratios per the model: tax burden ratio, interest burden ratio, EBIT efficiency, asset turnover ratio, and equity multiplier/leverage. R.O.E. is the multiplication of all these five ratios.

From the calculation, we found that during the ten years, the net income growth of Alibaba was 3.67 times the Amazon, E.B.T. growth is 3.23 times than the Amazon, and EBIT growth is 2.54 times than the Amazon. The results show that the sales of Alibaba grew up by an average of 395.09% per annum, which is 5.62 times of Amazon's sales growth. Alibaba's total assets will increase at an average rate of 318.31% per annum, 2.72 times higher than Amazon. However, we also found the results that sales of Alibaba are significantly less in comparison to investment in total assets. We see that Amazon is better because it generates more sales at lower investment intangible assets than Alibaba from the asset turnover ratio. Amazon has common equity in comparison to Alibaba. Suppose a company has low equity, then it gets more debt to invest in the assets. We found that Amazon has a high equity multiplier/leverage factor, which is not favorable.

We found that Alibaba is a high-growth company compared to Amazon from all of these calculations. From the initial point of view, we found that both companies are highly profitable. From the DuPont analysis, we found that during the year 2011 to 2017, the R.O.E. of Alibaba is highly fluctuated, creatinga high risk for the investors. R.O.E. of Alibaba became stable from the year 2017. We found that Amazon's R.O.E. was on a declining trend from 2011 to 2014, but from the year 2014 to 2020, the R.O.E. of Amazon is on an increasing trend and became higher than Alibaba's R.O.E. from the year 2018.The Regression results show that the DuPont model is significant for the calculation of R.O.E. for both companies. Amazon gets higher R.O.E. than Alibaba, so the share price of Amazon has gone 2.78 times higher in the last four years. At the same time, the share price of Alibaba goes to only 1.35 times higher in the same four-year period. So from this study, we conclude that the investors want business growth and higher R.O.E.

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