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Journal of Risk and Financial Management

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Suggested Citation: Bhavani, Ganga; Agrawal, Reena; Mendon, Suhan; Spulbăr, Cristi; Birau, Ramona (2021) : An empirical investigation into alarming signals ignored by the U.S. multibrand retailer J. Crew Incorporation during COVID-19 pandemic, Journal of Risk and Financial Management, ISSN 1911-8074, MDPI, Basel, Vol. 14, Iss. 11, pp. 1-21,<br>https://doi.org/10.3390/jrfm14110539

This Version is available at:
https://hdl.handle.net/10419/258642

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# An Empirical Investigation into Alarming Signals Ignored by the U.S. Multi-Brand Retailer J. Crew Incorporation during COVID-19 Pandemic 

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Citation: Bhavani, Ganga, Reena Agrawal, Suhan Mendon, Cristi Spulbar, and Ramona Birau. 2021. An Empirical Investigation into Alarming Signals Ignored by the U.S. Multi-Brand Retailer J. Crew Incorporation during COVID-19 Pandemic. Journal of Risk and Financial Management 14: 539. https:// doi.org/10.3390/jrfm14110539

Academic Editor: Thanasis Stengos

Received: 23 August 2021
Accepted: 18 October 2021
Published: 9 November 2021

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#### Abstract

This study investigated the financial signals that have been ignored or have failed to be controlled by J. Crew Inc. from 2013 until 2019. Exploratory research is carried out with the help of secondary data which was collected from the downloaded formal documents submitted by J. Crew Inc. to the Securities Exchange Commission (SEC). Researchers analyzed these documents and prepared statements on vertical income statement, vertical balance sheet, horizontal income statement, horizontal balance sheet, trend analysis of income statement, and trend analysis of balance sheet, as well as ratio analysis on liquidity, long-term solvency, profitability, and turnover ratios with the help of excel. This paper has identified total of 15 alarming signs that companies either ignored, could not control, or did not act with alertness towards to stop the business being taken out of hands. In this research paper, the establishment of J. Crew Inc. was presented in four sections: Crew Retail Stores, Crew Factory Stores, Crew Mercantile Stores, and Crew Madewell Stores. The results of this study show that it was not the COVID-19 pandemic that pushed this retail giant into bankruptcy, but numerous reasons and financial turbulences. J. Crew's financial performance gave plenty of alarming signals that the showed the company was not on track, but these were ignored by the company. Right from net profit, operating expenses, total revenue, goodwill, return on assets, liquidity, and solvency, all 15 indicators were not meeting the industry ideal standard for a continuous period of 5 years. Whether or not the organization can rebuild and contend in a post-pandemic world, is not yet clear.


Keywords: Crew Retail Stores; Crew Factory Stores; Crew Mercantile Stores; Crew Madewell Stores; financial performance; financial analysis

## 1. Introduction

For extended periods when associations are not generating any profit, business owners are propelled to move towards liquidation, either to leave the market or patch up the business. Profitability is the basic reason behind most liquidations, but there are numerous factors that can control an organization's ability to generate profit and experience bankruptcy subsequently. It is not a simple activity to run an organization. The American multi-brand, J. Crew Group, Inc., New York, NY, USA, is also multichannel and is a retailer under the specialty category, known for its conventional clothing specifically for younger professionals. The organization offered a variety of clothing and accessories for women, men, and children, from swimwear and dresses to shoes, sold through channels such as websites and catalogues. Back in 1989, its first brick and mortar store was opened. This is
the account that most easy-going eyewitnesses will recall about J. Crew's Chapter 11. The situation gained widespread attention, since no one could have predicted the end of such a retail era. However, J. Crew has been on a dubious edge for a considerable length of time. Since 2016, the organization has been working on eradicating a huge debt that apparently amounted to USD 2 billion in supported obligation. The Cessation of Operation Order (COO) revealed this information in a bankruptcy court. It is considered a negative factor for a clothing retailer to have so much debt while struggling to remain relevant.

This study is useful to all business organizations and various stakeholders at large, and whoever is interested in obtaining a deeper insight behind the failure of this business which can be predicted even before the next fiscal year. The main objective of this research is to explore the financial signals that were ignored or were failed to be controlled by J. Crew Inc. from 2013-2014 until 2018-2019. Vertical income statements, vertical balance sheets, horizontal income statements, horizontal balance sheets, trend analyses of income statements, and trend analyses of balance sheets are analyzed with the help of excel.

Ratio analysis of all four categories of ratios, namely, liquidity, long-term solvency, profitability, and turnover ratios, are analyzed. After the thorough analysis of the statements mentioned above, researchers selected the key triggers that pushed J. Crew Inc. to file for bankruptcy under two categories, such as (A) signals from vertical, horizontal, and trend analysis statements and (B) signals from ratio analysis. Our research has identified a total of 15 alarming signs that companies either ignored or could not control or did not act with alertness against to stop the business being taken out of hands.

Previous literature has focused on presenting the symptoms of failed enterprises from financial and nonfinancial viewpoints (Ropega 2011). In this paper, we extracted only financial symptoms that were ignored by J. Crew Inc., where eventually these signals led to the deterioration of the financial situation of the company. We examine the main spectrum of financial signals and their impact on J. Crew's future. This study provides evidence from investors' information on the happenings within this corporation from 2013 until 2019. Our findings provide a much more comprehensive and multidimensional analysis, which includes many more variables than those used in the Altman Z-score model.

## 2. Literature Review

In the economy, retail is considered a specific segment because of its necessities for executives, and because of its immediate connection to customers. In the retail business, the failure of successful organizations is not very common. Financial turbulence has its ramifications which can be quite extensive and can significantly influence the lead of monetary and budgetary approaches. The retail business is not an exception to this. There are several retail businesses which have filed for bankruptcy petitions due to financial and global crises. A financial crisis acts as a vital instrument for balancing the economy (White 2011).

It is quite important to have a clear understanding of a financial crisis, due to the impact of global crises (Claessens and Kose 2013). Apart from a financial and global crisis, there are other factors that can have the ability to push the businesses into a stressful situation (Kevin 2018). The board's absence of vision, absence of will, capacity to react viably, and failure to create vital changes in accordance with issues triggered by outside variables are some of the causes of failure according to Burt et al. (2003). Kücher et al. (2020), stated that conflicts inside the ventures, economic hurdles, legal obligations, and huge debts are also some of the common reasons for businesses' financial distress, which eventually ends up with them filing for bankruptcy. Once the companies identify their distress situation, they should react quickly, using improved defensive instruments, such as a change in attitude and dealings with shoppers (Mellahi et al. 2002). Financial distress also provides an opportunity to refurbishment and look for prospect to expand the business (Townsend 2010).

In case of bankruptcies, most of the organizations have minimal chances of reorganization because various stakeholders of the business, such as banks and investors, have
lost their trust in the administration (Ooghe and De Prijcker 2008). If this is the scenario, a settlement through bankruptcy (Chapter 11) is the only solution (Kaka 1965). There are various reasons why businesses fail. Failure of proprietorship and partnership involves pushing the economy downwards but loss is restricted to only a few owners of these businesses. When it comes to the corporation, where public investment is part of the organization, investors and potential investors have the right to know about any ongoing concerns of the businesses (Azadinamin 2012). Moreover, Ejaz et al. (2020) suggested that globalisation, high communication technology and advent of multinational companies generate an important influence in reducing international investment blockades.

Akram et al. (2021) found that digital commerce is the new normal for the millennials, in comparison to older generations thus retailers today are threatened with excessive challenges created by millennials' expectations. Change in retail models and structures is happening now, and the traditional buyer, who buys almost exclusively offline, no longer exists (Kleemann and Glas 2020; Choi et al. 2019; Bilgihan 2016). This situation was further worsened by the COVID-19 pandemic which brought new challenges due to complete lockdown periods (Sheth 2020) and changes and fluctuations in the demand for products (Qin et al. 2020). Hayat et al. (2021) argued that COVID-19 pandemic has affected economies around the world and had a significant impact based on the restrictive measures implemented by governmental authorities such as: enforced lockdowns and social distancing.

The issue of building the brand using symmetrical communication brings in discussion for long-term goals through building public relations in social media (Brodie et al. 2013).
Oncioiu et al. (2021) impressed upon the need for companies to appreciate the relevance and role of interactive communication on social media platforms in order to build a relationship with online customers through communication and dialogue, avoiding anything which may result in loss of business. In addition, Ullal et al. (2021) argued that customers can decide to buy products online without particular sensory experiences, such as touching, smelling or tasting.

Amankwah-Amoah et al. (2020) found a high probability of poorly equipped events which characterized unforeseen and foreseen consequences, with related arrays of disaggregation and reinforcement. The empirical evidences from research on the failure of businesses has revealed that one of the major reasons of business failure is the incompetence to adapt the offerings and business model as the external environs changes (Zhang et al. 2019).

Appel and Hardaker (2021) found three main strategies used by retailers during COVID-19: first was the intention to "bounce back" to a pre-COVID crisis state, either through earlier strategies or through enhanced online strategies; second was to reorganize the prevailing practices and to make them favorable for sustainable development and third was to wind up business by closing the stores. While the initial two strategies represented resilience, the third strategy demonstrated lack of resilience. Ghasemi et al. (2021) revealed that sustainable criteria cover all economic, social, and environmental dimensions. Moreover, Qaiser Gillani et al. (2021) highlighted the fact that a healthy environment results in healthy people and sustainable development.

Chapter 11 is a form of bankruptcy also known as "reorganization" bankruptcy which involves a redeployment of business matters, assets, and debts of distressed a debtor. It is most often used by large entities, such as businesses, though it is available to individuals as well. The debtor (excluding "small business debtor") gets an exclusive right to file a plan within 120-day period. (US Courts 2020). Chapter 11 is a plan of negotiation amid the distressed debtor and its key stakeholders that regulates "the obligations and rights amid the distressed debtor and its debt or equity holders ... so as to render the restructured debtor a viable economic entity.

The Z-Score model is a linear analysis in that five measures are objectively weighted and summed up to arrive at an overall score that then becomes the basis for classification of firms into one of the a priori groupings (distressed and non-distressed). The final discrimi-
nant function is as follows: $\mathrm{Z}=0.012 \mathrm{X} 1+0.014 \mathrm{X} 2+0.033 \mathrm{X} 3+0.006 \mathrm{X} 4+0.999 \mathrm{X} 5$ where X 1 $=$ working capital/total assets, X2 = retained earnings/total assets, X3 = earnings before interest and taxes/total assets, $\mathrm{X} 4=$ market value equity $/$ book value of total liabilities, X 5 $=$ sales $/$ total assets, and $\mathrm{Z}=$ overall index (Altman 1968).

It is also significant to pay attention to the triggers and signals that were ignored by the businesses when they had a scope to reorganize. The current study is on the explorative nature using secondary data of Financial Statements of J. Crew Inc. from 2013 until 2019. This research contributes to the existing literature by filling the gap with key alarming signs (financial perspective); the financially distressed firms' needs to pay attention before they file for bankruptcy.

## 3. Research Methodology

This is an explorative study based on secondary data of J. Crew Incorporation financial statements from 2013-2014 until 2018-2019. The main aim of this study is to fill the gap by providing significant alarming signs from a financial perspective that shows how financially distressed firms can make use of reorganizing the business before filing for bankruptcy. Authors downloaded the formal documents submitted by J. Crew Inc. to the Securities Exchange Commission (SEC) for the mentioned period of the study.

With the help of these downloaded financial statements, we prepared and analyzed the below statements with the help of excel:
$>$ Vertical income statement;
$>$ Vertical balance sheet;
$>$ Horizontal income statement;
$>$ Horizontal balance sheet;
$>$ Trend analysis of income statement;
$>$ Trend analysis of balance sheet.
Ratio analysis: all four categories of ratios (liquidity, long-term solvency, profitability, and turnover ratios).

After presenting the thorough analysis of the above statements, we selected the key triggers that pushed J. Crew Group Inc. to file for bankruptcy and presented them in two categories:
$>$ Signals from vertical, horizontal, and trend analysis statements;
$>$ Signals from ratio analysis.
We identified a total of 15 alarming signs that companies either ignored or could not control or acted with alertness to stop the business being taken out of hands.

## 4. Data Analysis and Results

### 4.1. J. Crew Group Inc. Business Establishments

In this research paper, the establishments of J. Crew Inc. were presented in four sections, namely retail stores, factory stores, mercantile stores, and Madewell stores. Table 1 depicts the metamorphosis of this corporation from 2013 till 2018 in three segments: number of stores in the beginning of the year, newly opened during the year, and closed during the year. Subsequently, the 'End of Year' section shows the final number at the end (Table 1).

Table 1. Summary of J. Crew Group Inc. establishments during 2013-2018.

|  | Retail (a) | Factory (b) | Mercantile (c) | Total ( $\mathbf{a}+\mathrm{b}+\mathrm{c}$ ) | Madewell (d) | $\begin{gathered} \text { Total (a+b+ } \\ c+d) \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fiscal 2013: |  |  |  |  |  |  |
| Beginning of year | 247 | 106 | 0 | 353 | 48 | 401 |
| New | 19 | 15 | 0 | 34 | 17 | 51 |
| Closed | -1 | 0 | 0 | -1 | 0 | -1 |
| End of year | 265 | 121 | 0 | 386 | 65 | 451 |
| Fiscal 2014: |  |  |  |  |  |  |
| Beginning of year | 265 | 121 | 0 | 386 | 65 | 451 |
| New | 17 | 18 | 0 | 35 | 20 | 55 |
| Closed | -2 | 0 | 0 | -2 | 0 | -2 |
| End of year | 280 | 139 | 0 | 419 | 85 | 504 |
| Fiscal 2015: |  |  |  |  |  |  |
| Beginning of year | 280 | 139 | 0 | 419 | 85 | 504 |
| New | 9 | 12 | 10 | 31 | 18 | 49 |
| Closed | -4 | 0 | 0 | -4 | 0 | -4 |
| End of year | 285 | 151 | 10 | 446 | 103 | 549 |
| Fiscal 2016: |  |  |  |  |  |  |
| Beginning of year | 285 | 151 | 10 | 446 | 103 | 549 |
| New | 3 | 2 | 19 | 24 | 10 | 34 |
| Converted to J. Crew Mercantile | -1 | -9 | 10 | 0 | 0 | 0 |
| Closed | -8 | -2 | 0 | -10 | 0 | -10 |
| End of year | 279 | 142 | 39 | 460 | 113 | 573 |
| Fiscal 2017: |  |  |  |  |  |  |
| Beginning of year | 279 | 142 | 39 | 460 | 113 | 573 |
| New | 1 | 1 | 0 | 2 | 8 | 10 |
| Converted to J. Crew Mercantile | -3 | 0 | 3 | 0 | 0 | 0 |
| Closed | -42 | -9 | 0 | -51 | 0 | -51 |
| End of year | 235 | 134 | 42 | 411 | 121 | 532 |
| Fiscal 2018: |  |  |  |  |  |  |
| Beginning of year | 235 | 134 | 42 | 411 | 121 | 532 |
| New | 1 | 0 | 0 | 1 | 8 | 9 |
| Closed | -32 | -2 | 0 | -35 | 0 | -35 |
| End of year | 204 | 132 | 42 | 377 | 129 | 506 |

(Source: Author primary data analysis using J. Crew Annual Report (2014, 2015, 2016, 2017, 2018, 2019).

### 4.2. J. Crew Group Inc. Retail Stores

The total number of J. Crew Retail Stores was 265 by the end of 2013, which increased to 280 (rise of $5.66 \%$ over the previous year) by the end of 2014 . This trend of increase continued in 2015 as well, and the number of stores stood at 285 which shows a $1.79 \%$ increase from the previous year. Subsequent years of 2016 and 2017 recorded a decrease in retail outlets. In the year 2016, eight stores closed and one store was converted to mercantile business, which indicates a drop of $2.11 \%$ compared to the previous year. Whereas, in the
year of 2017, 42 stores were closed and 3 stores were converted to mercantile business and sparked the percentage to drop to $14.70 \%$ compared to the previous year, which shows the final number existing by the end of 2018 at 204 stores (Table 1 and Figure 1).


Figure 1. J Crew Group Inc. Retail Stores. (Source: Author creation using J. Crew Annual Report (2014, 2015, 2016, 2017, 2018, 2019)).

### 4.3. J. Crew Group Inc. Factory

The number of J. Crew factories were 121 at the end of 2013, which increased to 139 (a rise of $14.88 \%$ from the previous year) by the end of 2014, with an addition of 18 new factories. In the year 2015, this corporation recorded the final number at 151 by continuing the increasing trend with $8.63 \%$ of increase over the previous year. Whereas, 2016 was a standstill without any news additions or closures of factory outlets. Subsequently, the years 2017 and 2018 documented a drop in the stores with nine and two closures, respectively (Table 1 and Figure 2).


Figure 2. J Crew Group Inc. Factory. (Source: Author creation using J. Crew Annual Report (2014, 2015, 2016, 2017, 2018, 2019)).

### 4.4. J. Crew Mercantile

J. Crew Mercantile started its operation in 2015 with 10 in number, which increased to 39 (rise of $290 \%$ over the previous year) by the end of 2016, and further increased to 42 (rise of $7.69 \%$ over the previous year) in 2017, but the number remained the same in 2018 (recording Zero growth) (Table 1 and Figure 3).


Figure 3. J Crew Group Inc. Mercantile. (Source: Author creation using J. Crew Annual Report (2014, 2015, 2016, 2017, 2018, 2019)).

### 4.5. Madewell

The total number of stores for Madewell in 2013 were 65. Exclusively, Madewell showed an increased trend throughout the period, i.e., right from 2013 until 2018, unlike the other stores. All the consecutive years following, the number of this particular department is growing and recorded an increase of $30.77 \%$ ( 85 stores), $22.18 \%$ ( 103 Stores), $9.71 \%$ (113 stores), $7.08 \%$ (121 stores) and $6.61 \%$ (129 stores) compared to the previous year's 2014, 2015, 2016, 2017 and 2018, respectively (Table 1 and Figure 4).


Figure 4. Madwell J Crew Brand. (Source: Author creation using J. Crew Annual Report (2014, 2015, 2016, 2017, 2018, 2019)).

### 4.6. Total Establishments

In a nutshell, the total establishments of J. Crew Group Inc. excluding Madewell, were 383 and including Madewell were 451 in the beginning of 2013. By the end of 2013 and 2014, they increased to 419 and 504 recording the rise of $8.55 \%$ and $11.75 \%$, respectively. By 2015, these establishments were further increased to 446 (rise of $6.44 \%$ over the previous year) and 549 (rise of $8.33 \%$ over the previous year). In the subsequent year of 2016, they recorded the increase to 460 (rise of $3.14 \%$ over the previous year) and 573 (rise of $4.37 \%$ over the previous year) (Table 1).

It was noticed in the year 2017 that a down trend had started as the total establishments excluding Madewell came down to 411 (drop of $10.65 \%$ over the previous year) while total numbers including Madewell came down to 532 (drop of $7.16 \%$ over the previous year). This trend continued into 2018, as the number came down to 377 (drop of $8.27 \%$ over the previous year) and 506 (drop of $4.89 \%$ over the previous year) (Table 1).

### 4.7. Financial Analysis of J. Crew Group Inc.

This study presents the financial results of J. Crew Group Inc. from 2013 to 2019. These results are presented using horizontal analysis, vertical analysis, trend analysis, and ratio analysis.

### 4.8. Horizontal Analysis of J. Crew Group Inc.'s Financial Statements from 2013-2019

### 4.8.1. Horizontal Analysis of Consolidated Income Statement of J. Crew Group Inc.

Table 2 depicts the results of the horizontal analysis on J. Crew's consolidated income statement from 2013-2018. J. Crew's net sales revenue, which is the primary source of income to this incorporation, shows an increasing trend in the financial years 2013-2014 and 2014-2015 by $8.57 \%$ and $5.84 \%$, respectively, over previous years. In subsequent years, i.e., 2015-2016, 2016-2017, and 2018-2019, there is a decrease in the earnings by $3.65 \%$, $3.58 \%$, and $3.91 \%$, respectively. J. Crew's total revenues also dropped during the years of 2015-2016, 2016-2017, and 2018-2019 by $2.86 \%, 2.96 \%$, and $2.38 \%$, respectively (Table 2).

Table 2. Horizontal Analysis of the Consolidated Income Statement of J. Crew Group Inc. from 2013-2019.

|  | \% Change <br> between <br> 2018-2019 | \% Change <br> between <br> 2017-2018 | \% Change <br> between <br> 2016-2017 | \% Change <br> between <br> 2015-2016 | \% Change <br> between <br> 2014-2015 | \% Change <br> between <br> 2013-2014 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Net Sales <br> Revenues | 1.80 | -3.91 | -3.58 | -3.65 | 5.84 | 8.57 |
| Other Revenues | 65.56 | 47.92 | 23.14 | 48.13 | 40.16 | 64.71 |
| Total Revenues | 4.65 | -2.38 | -2.96 | -2.86 | 6.24 | 9.00 |
| Cost of goods <br> sold, including <br> buying and <br> occupancy costs | 11.67 | -4.79 | -3.72 | 0.09 | 13.12 | 14.60 |
| Gross Profit | -6.90 | 1.85 | -1.59 | -7.76 | -3.50 | 12.96 |
| Selling and <br> Administrative <br> Expenses | -5.57 | -1721.30 | -99.44 | -1.40 | 12.14 | 2.99 |
| Impairment <br> losses | -92.38 | -100.75 | -336.02 | -103.73 | 125.67 | -334.11 |

(Source: Author Creation Using J. Crew Annual Report (2014, 2015, 2016, 2017, 2018, 2019)).

The results depicts that J. Crew's experienced fluctuating net profits and net losses during the period 2013 until 2019, with a $846.42 \%$ decrease in net profit recorded during 2014-2015 due to the magnanimous rise in impairment losses, and by $419.15 \%$ during 2017-2018. J. Crew's COGS increased by 11.67\% during the financial year of 2018-2019 (Table 2).

### 4.8.2. Horizontal Analysis of Consolidated Balance Sheet

Table 3 presents the results of horizontal analysis on J. Crew Inc.'s consolidated balance sheet from 2013-2018. J. Crew Group Inc.'s cash and cash equivalent balances began deteriorating during 2014-2015 and 2015-2016, with a drop of $29.08 \%$ and $20.96 \%$,
respectively, being recorded. Whereas, in the year 2016-2017, it increased by $50.58 \%$. In the subsequent year of 2017-2018, there was a drop of $19.03 \%$ and it further decreased by $75.96 \%$ in 2018-2019, which is noteworthy. In 2014-2015, J. Crew's net property and equipment dropped by $1.53 \%$ over previous years. This continued to fall in the subsequent years of 2016-2017 and 2017-2018 with $20.09 \%$ and $15.83 \%$, respectively (Table 3).

Table 3. Horizontal Analysis of the Consolidated Balance Sheet of J. Crew Group, Inc. from 2013-2019.

|  | \% Change between 2018-2019 | \% Change between 2017-2018 | \% Change between 2016-2017 | \% Change between 2015-2016 | \% Change between 2014-2015 | \% Change between 2013-2014 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ASSETS |  |  |  |  |  |  |
| Current assets: |  |  |  |  |  |  |
| Cash and cash equivalents | -75.96 | -19.03 | 50.58 | -20.96 | -29.08 | 129.02 |
| Merchandise inventories, net | 33.50 | -7.00 | -15.55 | 1.24 | 3.92 | 33.26 |
| Prepaid expenses and other current assets | -8.02 | 44.18 | -2.37 | 8.02 | 7.62 | -10.03 |
| Refundable income taxes | 351.97 | -64.76 | - | - | -100.00 | -0.50 |
| Total Current Assets | 13.99 | -4.24 | -1.99 | -2.57 | -7.22 | 41.38 |
| Property and equipment, net | -15.83 | -20.09 | -9.05 | -1.53 | 7.83 | 15.73 |
| Intangible assets, net | -2.37 | -31.43 | -2.29 | -44.93 | -15.73 | 1.77 |
| Goodwill | 0.00 | 0.00 | 0.00 | -90.41 | -33.33 | 0.00 |
| Other assets | -3.29 | 2.69 | -73.66 | -12.33 | -41.33 | -48.38 |
| Total Assets | 1.30 | -16.36 | -4.91 | -48.29 | -20.37 | 5.61 |
| LIABILITIES AND STOCKHOLDERS' DEFICIT |  |  |  |  |  |  |
| Current liabilities: |  |  |  |  |  |  |
| Accounts payable | 11.71 | 19.53 | -21.68 | 1.63 | 3.10 | 67.96 |
| Other current liabilities | 38.18 | 6.50 | 5.47 | 1.33 | 0.58 | 0.68 |
| Interest payable | 8.91 | 174.71 | 51.11 | -2.39 | -70.06 | -3.97 |
| Current portion of long-term debt | 104.66 | 0.00 | 0.00 | 0.00 | 30.58 | 0.00 |
| Total Current Liabilities | 37.75 | 16.14 | -3.72 | 2.31 | 0.58 | 29.54 |
| Long-term debt, net | -1.44 | 13.60 | -1.56 | -0.95 | -1.43 | -0.77 |
| Lease-related deferred credits, net | -9.90 | -11.22 | 0.57 | 17.53 | 19.58 | 31.82 |
| Deferred income taxes, net | -39.20 | -80.87 | -2.54 | -51.12 | -21.81 | -0.91 |
| Other liabilities | -4.08 | -30.11 | -17.42 | 22.80 | 34.15 | -17.41 |
| Total liabilities | 5.72 | 5.63 | -2.28 | -5.42 | -3.03 | 4.03 |
| Stockholders' Deficit: |  |  |  |  |  |  |
| Additional paid-in capital | 0.02 | \#DIV /0! | -100.00 | -3.51 | 0.59 | 0.58 |
| Accumulated other comprehensive loss | -24.43 | \#DIV / 0 ! | -100.00 | 67.02 | -33.79 | -24.79 |
| Accumulated deficit | 6.38 | \#DIV /0! | -100.00 | 254.20 | -348.63 | 81.22 |
| Total Stockholders' Deficit | 10.35 | 45.69 | 2.91 | -249.02 | -56.65 | 9.06 |
| Total liabilities and Stockholders' Deficit | 1.30 | -16.36 | -4.91 | -48.29 | -20.37 | 5.61 |

(Source: Author Creation Using J. Crew Annual Report (2014, 2015, 2016, 2017, 2018, 2019)).
However, net intangible assets and goodwill of this corporation also decreased from 2013-2014 until 2018-2019. Net intangible assets started decreasing from 2013-2014 with $15.73 \%$ over the previous year, continued to fall in 2015-2016 with $44.93 \%, 2016-2017$ with
$2.29 \%$, 2017-2018 with $31.43 \%$, and further in the year 2018-2019 with $2.37 \%$. Goodwill fell drastically in the 2014-2015 by $90.45 \%$ (Table 3).

### 4.9. Vertical Analysis of J. Crew Group Inc.'s Financial Statements from 2013 to 2019

### 4.9.1. Vertical Analysis Income Statement

J. Crew's cost of goods sold, including buying and occupancy costs, absorbs the maximum portions of total revenue generated by the company. The amount spent on cost of goods sold, including buying and occupancy costs, constantly increased since 2013. It was $55.71 \%$ in total revenue of $100 \%$ sales during 2013-2014, which increased to $58.57 \%$ during 2014-2015, 62.36\% during 2015-2016, and 63.76 \% during 2016-2017, whereas it marginally came down to $62.18 \%$ during 2017-2018 but again shot up to $66.36 \%$ during 2018-2019 (Table 4).

Table 4. Vertical analysis of consolidated income statements of J. Crew Group, Inc. from 2013-2019.

|  | $\begin{gathered} \hline \text { Common } \\ \text { Size } \\ \text { Statement } \\ 2019 \end{gathered}$ | $\begin{gathered} \hline \text { Common } \\ \text { Size } \\ \text { Statement } \\ 2018 \end{gathered}$ | $\begin{gathered} \hline \text { Common } \\ \text { Size } \\ \text { Statement } \\ 2017 \end{gathered}$ | $\begin{gathered} \hline \text { Common } \\ \text { Size } \\ \text { Statement } \\ 2016 \end{gathered}$ | $\begin{gathered} \text { Common } \\ \text { Size } \\ \text { Statement } \\ 2015 \end{gathered}$ | Common Size Statement 2014 | $\begin{gathered} \hline \text { Common } \\ \text { Size } \\ \text { Statement } \\ 2013 \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total Revenues | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| Cost of goods sold, including buying and occupancy costs | 66.36 | 62.18 | 63.76 | 64.26 | 62.36 | 58.57 | 55.71 |
| Gross Profit | 33.64 | 37.82 | 36.24 | 35.74 | 37.64 | 41.43 | 44.29 |
| Selling, general and administrative expenses | 33.17 | 36.76 | 33.90 | 33.29 | 32.79 | 31.07 | 32.88 |
| Impairment losses | 0.43 | 5.95 | 0.32 | 55.14 | 27.52 | 0.08 | 0.03 |
| Income (loss) from operations | 0.03 | -4.90 | 2.03 | -52.69 | -22.68 | 10.29 | 11.39 |
| Interest expense, net | 5.54 | 4.66 | 3.26 | 2.79 | 2.88 | 4.29 | 4.56 |
| Benefit for income taxes | -0.67 | -4.36 | -0.28 | -5.88 | -2.35 | 2.37 | 2.51 |
| Net Profit/ Loss | -4.83 | -5.19 | -0.98 | -49.59 | -25.50 | 3.63 | 4.31 |

(Source: Author Creation Using J. Crew Annual Report (2014, 2015, 2016, 2017, 2018, 2019)).
J. Crew generated a net profit of $4.31 \%$ in a total revenue of $100 \%$ during 2012-2013 which reduced to $3.63 \%$ (a drop of $18.73 \%$ over the previous year's performance). More alarming was that the company was slipping into net losses of $25.50 \%$ (drop of $802.47 \%$ over the previous year's performance) on revenue of 100\% during 2014-2015. This made net losses even worse, amounting to $49.59 \%$ (a rise of $94.47 \%$ over the previous year's performance) for $100 \%$ of the total revenue during 2015-2016. In the year 2016-2017, net loss amounted to $0.98 \%$ and increased to $5.19 \%$ during 2017-2018, whereas net losses were 4.83\% during 2018-2019 (Table 4).

### 4.9.2. Vertical Analysis of Balance Sheet of J. Crew Group Inc.

J. Crew's cash and cash equivalents were drastically poor after 2013. The company's cash and cash equivalents amounted to $1.96 \%$ per $100 \%$ of total assets during 2012-2013, $4.25 \%$ during 2013-2014, 3.79\% during 2014-2015, 5.79\% during 2015-2016, 9.17\% during 2016-2017, 8.88\% during 2017-2018, and 2.11\% during 2018-2019 (Table 5).

Table 5. Vertical Analysis of J. Crew Group Inc. Balance Sheet from 2013 to 2019.

|  | Common Size Statement 2019 | Common Size Statement 2018 | Common Size Statement 2017 | Common Size Statement 2016 | Common Size Statement 2015 | Common Size Statement 2014 | Common Size Statement 2013 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ASSETS |  |  |  |  |  |  |  |
| Current Assets: |  |  |  |  |  |  |  |
| Cash and Cash Equivalents | 2.11 | 8.88 | 9.17 | 5.79 | 3.79 | 4.25 | 1.96 |
| Restricted cash | 1.13 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Accounts receivable, net | 3.30 | 1.92 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Merchandise inventories, net | 31.96 | 24.25 | 21.81 | 24.56 | 12.54 | 9.61 | 7.62 |
| Prepaid expenses and other current assets | 6.95 | 6.58 | 4.44 | 4.33 | 2.07 | 1.53 | 1.80 |
| Refundable income taxes | 0.60 | 0.13 | 0.32 | 0.00 | 0.00 | 0.40 | 0.42 |
| Property and equipment, net | 19.94 | 24.00 | 25.12 | 26.26 | 13.79 | 10.19 | 9.30 |
| Intangible assets, net | 24.67 | 25.60 | 31.22 | 30.39 | 28.53 | 26.96 | 27.98 |
| Goodwill | 8.83 | 8.10 | 7.48 | 7.12 | 38.36 | 45.81 | 48.38 |
| Other Assets | 0.50 | 0.53 | 0.43 | 1.55 | 0.92 | 1.24 | 2.54 |
| Total Assets | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| LIABILITIES AND STOCKHOLDERS' DEFICIT |  |  |  |  |  |  |  |
| Current Liabilities: |  |  |  |  |  |  |  |
| Accounts Payable | 21.26 | 19.28 | 13.49 | 16.38 | 8.33 | 6.44 | 4.05 |
| Other current liabilities | 20.04 | 14.69 | 11.54 | 10.40 | 5.31 | 4.20 | 4.41 |
| Borrowings under the ABL Facility | 5.80 | 0.00 | 0.00 | 0.47 | 0.11 | 0.00 | 0.00 |
| Due to Parent | 3.07 | 3.17 | 2.32 | 0.00 | 0.00 | 0.00 | 0.00 |
| Interest payable | 1.95 | 1.82 | 0.55 | 0.35 | 0.18 | 0.49 | 0.54 |
| Current portion of long-term debt | 2.63 | 1.30 | 1.09 | 1.03 | 0.53 | 0.33 | 0.34 |
| Long-term debt, net | 136.97 | 140.79 | 103.65 | 100.13 | 52.27 | 42.23 | 44.94 |
| Lease-related deferred credits, net | 8.68 | 9.76 | 9.19 | 8.69 | 3.82 | 2.55 | 2.04 |
| Deferred income taxes, net | 1.38 | 2.30 | 10.06 | 9.81 | 10.38 | 10.58 | 11.27 |
| Other liabilities | 2.37 | 2.50 | 2.99 | 3.45 | 1.45 | 0.86 | 1.10 |
| Stockholders' Deficit: |  |  |  |  |  |  |  |
| Additional paid-in Capital | 60.02 | 60.79 | 61 | 64.59 | 34.61 | 27.40 | 28.77 |
| Accumulated other comprehensive loss | -0.16 | -0.22 | 0.24 | -1.11 | -0.34 | -0.41 | -0.58 |
| Accumulated Deficit | -164.00 | -156.18 | -120.11 | -114.20 | -16.67 | 5.34 | 3.11 |
| Total Liabilities and Stockholders' Deficit | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |

(Source: Author Creation Using J. Crew Annual Report (2014, 2015, 2016, 2017, 2018, 2019)).
J. Crew's net property and equipment were also substantially low following the year of 2013. The company's net property and equipment amounted to $9.30 \%$ per $100 \%$ of total assets during 2012-2013, 10.19\% during 2013-2014, 13.79\% during 2014-2015, 26.26\% during 2015-2016, 25.12\% during 2016-2017, 24.00\% during 2017-2018, and 19.94\% during 2018-2019. J. Crew's long-term debt net was dangerously high after 2014-2015. The company's long-term debt amounted to $100.13 \%$ per $100 \%$ of total liabilities of $100 \%$ during 2015-2016, 103.65\% during 2016-2017, 140.79\% during 2017-2018, and 136.97\% during 2018-2019.
J. Crew's accumulated deficit was skyrocketing, which showed a negative trend following 2014-2015. The company's accumulated deficit amounted to $-16.67 \%$ when total assets were 100\% during 2014-2015, $-114.20 \%$ during 2015-2016, $-120.11 \%$ during 2016-2017, - 156.18\% during 2017-2018, and -164\% during 2018-2019 (Table 5).

### 4.10. Trend Analysis of J. Crew Group Inc. Financial Statements from 2013 to 2019

Taking 2013 as a base year, J. Crew's net sales revenue, which was the primary source of income, increased by $8.57 \%$ in $2013-2014,14.92 \%$ in $2014-2015,10.72 \%$ in $2015-2016$, $6.75 \%$ in $2016-2017,2.58 \%$ in $2017-2018$, and $4.43 \%$ in 2018-2019. The increase in net sales revenue was quite insignificant during the given period. J. Crew's other revenues galloped at an extremely higher rate of $64.71 \%$ in 2013-2014, 130.86\% in 2014-2015, 241.97.72\% in $2015-2016,321.09 \%$ in $2016-2017,522.85 \%$ in $2017-2018$, and $931.17 \%$ in $2018-2019$. However, the company's deteriorating financial condition proves that this source of income constituted only a minor component of total income (Table 6 Panel B and Figures 5 and 6).

Table 6. (A) Selected Financial Indicators of J Crew Group Inc. (Amount in'000 USD). (B) Trend analysis of selected financial indicators of J. Crew Group Inc. from 2013 to 2019.

| Panel A |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| J. Crew Group, Inc. |  |  |  |  |  |  |  |
| Selected Financial Indicators from 2013-2019 (Base Year 2013) |  |  |  |  |  |  |  |
|  | FY <br> Ending 2 <br> February 2019 | FY <br> Ending 3 <br> February 2018 | FY Ending 28 January 2017 | FY Ending 30 January 2016 | FY Ending 31 January 2015 | FY <br> Ending 1 <br> February <br> 2014 | FY <br> Ending 2 <br> February <br> 2013 |
| Net Sales Revenue | 2,308,695 | 2,267,810 | 2,360,010 | 2,447,692 | 2,540,449 | 2,400,257 | 2,210,717 |
| Other <br> Revenues | 175,299 | 105,885 | 71,585 | 58,135 | 39,246 | 28,000 | 17,000 |
| COGS including Buying and Occupancy Cost | 1,648,330 | 1,476,064 | 1,550,305 | 1,610,256 | 1,608,777 | 1,422,143 | 1,240,989 |
| Selling and Admin Expenses | 824,031 | 872,681 | 824,290 | 834,137 | 845,953 | 754,345 | 732,439 |
| Property and Equipment, Net | 243,620 | 289,441 | 362,187 | 398,244 | 404,452 | 375,092 | 324,111 |
| Total Stockholders' Deficit | -1,272,243 | -1,152,958 | -791,395 | -768,987 | 516,024 | 1,190,420 | 1,091,491 |

Table 6. Cont.

| Panel B |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| J. Crew Group, Inc. |  |  |  |  |  |  |  |
| Trend Analysis from 2013-2019 (Base Year 2013) |  |  |  |  |  |  |  |
|  | $\begin{gathered} 2 \text { February } \\ 2019 \end{gathered}$ | $\begin{gathered} 3 \text { February } \\ 2018 \end{gathered}$ | $\begin{aligned} & 28 \text { January } \\ & 2017 \end{aligned}$ | $\begin{aligned} & 30 \text { January } \\ & 2016 \end{aligned}$ | $\begin{aligned} & 31 \text { January } \\ & 2015 \end{aligned}$ | $\begin{gathered} 1 \text { February } \\ 2014 \end{gathered}$ | $\begin{gathered} 2 \text { February } \\ 2013 \end{gathered}$ |
| Net Sales Revenue | 104.43 | 102.58 | 106.75 | 110.72 | 114.92 | 108.57 | 100 |
| Other Revenues | 1031.17 | 622.85 | 421.09 | 341.97 | 230.86 | 164.71 | 100 |
| COGS <br> including Buying and Occupancy Cost | 132.82 | 118.94 | 124.92 | 129.76 | 129.64 | 114.60 | 100 |
| Selling and Admin Expenses | 112.51 | 119.15 | 112.54 | 113.88 | 115.50 | 102.99 | 100 |
| Property and Equipment, Net | 75.17 | 89.30 | 111.75 | 122.87 | 124.79 | 115.73 | 100 |
| Total stockholders' deficit | -117 | -106 | -73 | -70 | 47 | 109 | 100 |

(Source: Author Creation Using J. Crew Annual Report (2014, 2015, 2016, 2017, 2018, 2019)).Values in Table 6 Panel A and Figure 5 are used as basis of calculation in Table 6 Panel B.

Selected Indicators (Amount `000 USD)


> ■ February 2, $2019 ■$ February 3, $2018 ■$ January 28, 2017 ■ January 30,2016
> January 31,2015 $■$ Feburary 1,2014 ■ 2-Feb-13

Figure 5. Selected Financial indicators of J. Crew Group Inc. from 2013-2019 (Amount: ‘000 USD). (Source: Author Creation Using J. Crew Annual Report (2014, 2015, 2016, 2017, 2018, 2019)).
J. Crew's COGS including buying and occupancy cost increased at a rate $14.60 \%$ in 2013-2014, 29.64\% in 2014-2015, 29.76 \% in 2015-2016, 24.92 \% in 2016-2017, 18.94 \% in 2017-2018, and 32.82 \% during 2018-2019. J. Crew's selling and administrative expenses increased at a rate 2.99 \% in 2013-2014, 15.50 \% in 2014-2015, 13.88 \% in 2015-2016, 12.54 \% in 2016-2017, 19.15 \% in 2017-2018, and 12.51 \% during 2018-2019. J. Crew's net property and equipment has deteriorated as a total value reduced by 9.70 \% during 2017-2018 and reduced by $24.83 \%$ during 2018-2019. J. Crew's total stockholders' deficit started decreasing during 2014-2015 when the percentage of drop was $53 \%$. It further dropped
by $170 \%$ during 2015-2016, reduced by $173 \%$ during 2016-2017, dropped by $206 \%$ during 2017-2018, and reduced by 217\% during 2018-2019 (Table 6 Panel B and Figures 5 and 6).


Figure 6. Trend analysis of selected financial indicators of J. Crew Group Inc. from 2013 to 2019. (Source: Author Creation Using J. Crew Annual Report (2014, 2015, 2016, 2017, 2018, 2019)).
4.11. Ratio Analysis of J. Crew Group Inc. from 2013 to 2019

### 4.11.1. Profitability Ratios

J. Crew's profit margin ratio was significantly low during 2012-2013 and 2013-2014, at $4.31 \%$ and $3.63 \%$, respectively. Then, from 2014-2015 onwards, the company started generating negative returns as follows: net loss of $25.89 \%$ during 2014-2015, net loss of $50.77 \%$ during 2015-2016, net loss of $1.01 \%$ during 2016-2017, net loss of $5.43 \%$ during 20172018, and net loss of $5.20 \%$ during 2018-2019. However, J. Crew's return on investment was significantly low during 2012-2013 and 2013-2014, which were $2.76 \%$ and $2.46 \%$, respectively. However, from 2014-2015 onwards, the company started getting negative returns as follows: $-19.89 \%$ during 2014-2015, $-55.87 \%$ during 2015-2016, $-1.60 \%$ during 2016-2017, 9.31\% during 2017-2018, and -9.89\% during 2018-2019 (Figure 7).


Figure 7. Profitability Ratios of J. Crew Group Inc. from 2013 to 2019. (Source: Author Creation Using J. Crew Annual Report (2014, 2015, 2016, 2017, 2018, 2019)).

### 4.11.2. Activity and Efficiency Ratios

J. Crew's inventory turnover was 4.67 times during 2012-2013, 4.59 times during 2013-2014, 4.46 times during 2014-2015, 4.35 times during 2015-2016, 4.51 times during 2016-2017, 4.86 time during 2017-2018, and 4.83 times during 2018-2019. This ratio never entered negative but the values were significantly low. This ratio also indicates that the
company was hardly able to convert its inventory into sales less than 1.5 times for the last few years (Table 7 and Figure 8).

Table 7. Activity and efficiency ratios of J. Crew Group Inc. from 2013 to 2019.

|  | FYE 2 <br> February <br> 2013 | FYE 1 <br> February <br> $\mathbf{2 0 1 4}$ | FYE 31 <br> January 2015 | FYE 30 <br> January <br> $\mathbf{2 0 1 6}$ | FYE 28 <br> January <br> 2017 | FYE 3 <br> February <br> $\mathbf{2 0 1 8}$ | FYE 2 <br> February <br> $\mathbf{2 0 1 9}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Inventory <br> Turnover | 4.67 | 4.59 | 4.46 | 4.35 | 4.51 | 4.86 | 4.83 |
| Assets Turnover | 0.63 | 0.67 | 0.77 | 1.10 | 1.60 | 1.71 | 1.90 |

(Source: Author Creation Using J. Crew Annual Report (2014, 2015, 2016, 2017, 2018, 2019)).


Figure 8. Activity and efficiency ratios of J. Crew Group Inc. from 2013 to 2019. (Source: Author Creation Using J. Crew Annual Report (2014, 2015, 2016, 2017, 2018, 2019)).

This indicates extremely poor movement of inventory which must have resulted in huge volumes of unsold stock. J. Crew's asset turnover was substantially low, i.e., 0.63 times during 2012-2013, 0.67 times during 2013-2014, 0.77 times during 2014-2015, 1.10 times during 2015-2016, 1.60 times during 2016-2017, 1.71 times during 2017-2018, and 1.90 times during 2018-2019 (Table 7 and Figure 8).

### 4.11.3. Liquidity Ratios

J. Crew's current ratios were 1.26:1 during 2012-2013, 1.38:1 during 2013-2014, 1.27:1 during 2014-2015, 1.21:1 during 2015-2016, 1.23:1 during 2016-2017, 1.02:1 during 20172018, and 0.84:1 during 2018-2019. From the financial year 2012-2013 until 2018-2019, the current ratio was always lower than the industry standard ideal current ratio, i.e., 2:1. J. Crew's quick ratios were 0.26:1 during 2012-2013, 0.41:1 during 2013-2014, 0.26:1 during 2014-2015, 0.20:1 during 2015-2016, 0.33:1 during 2016-2017, 0.22:1 during 2017-2018, and $0.13: 1$ during 2018-2019. All these results of quick ratio are significantly low than the ideal quick ratio of 1:1 (Table 8 and Figure 9).

Table 8. J. Crew's liquidity ratios from 2013 to 2019.

|  | FYE 2 <br> February <br> $\mathbf{2 0 1 3}$ | FYE 1 <br> February <br> $\mathbf{2 0 1 4}$ | FYE 31 <br> January 2015 | FYE 30 <br> January 2016 | FYE 28 <br> January 2017 | FYE 3 <br> February <br> $\mathbf{2 0 1 8}$ | FYE 2 <br> February <br> 2019 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Current Ratio | 1.26 | 1.38 | 1.27 | 1.21 | 1.23 | 1.02 | 0.84 |
| Quick Ratio | 0.26 | 0.41 | 0.26 | 0.20 | 0.33 | 0.22 | 0.13 |

(Source: Author Creation Using Author Creation Using J. Crew Annual Report (2014, 2015, 2016, 2017, 2018, 2019)).


Figure 9. Liquidity Ratios of J. Crew Group Inc. from2013 to 2019. (Source: Author Creation Using J. Crew Annual Report (2014, 2015, 2016, 2017, 2018, 2019)).

### 4.11.4. Solvency Ratios

J. Crew's interest coverage ratio was 2.49 times during 2012-2013, 2.40 times during 2013-2014, -7.87 times during 2014-2015, - 18.91 times during 2015-2016, 0.62 times during 2016-2017, -1.05 times during 2017-2018, and 0.01 times during 2018-2019. This shows inadequate capacities to pay off the interest expense. J. Crew's debt equity ratio was 1.45:1 during 2012-2013, $1.32: 1$ during 2013-2014, 3.01:1 during 2014-2015, -2:1 during 2015-2016, $-1.91: 1$ during 2016-2017, $-1.49: 1$ during 2017-2018, and $-1.40: 1$ during 20182019. This shows that the company had adopted a very conservative approach (Table 9 and Figure 10).

Table 9. Solvency Ratios of J. Crew Group Inc. from 2013 to 2019.

|  | FYE 2 <br> February <br> $\mathbf{2 0 1 3}$ | FYE 1 <br> February <br> $\mathbf{2 0 1 4}$ | FYE 31 <br> January <br> $\mathbf{2 0 1 5}$ | FYE 30 <br> January <br> $\mathbf{2 0 1 6}$ | FYE 28 <br> January <br> $\mathbf{2 0 1 7}$ | FYE 3 <br> February <br> $\mathbf{2 0 1 8}$ | FYE 2 <br> February <br> $\mathbf{2 0 1 9}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Interest Coverage Ratio | 2.49 | 2.40 | -7.87 | -18.91 | 0.62 | -1.05 | 0.01 |
| Debt Equity Ratio | 1.45 | 1.32 | 3.01 | -2.00 | -1.91 | -1.49 | -1.40 |

(Source: Author Creation Using J. Crew Annual Report (2014, 2015, 2016, 2017, 2018, 2019)).


Figure 10. Solvency Ratios of J. Crew Group Inc. from2013 to 2019. (Source: Author Creation Using J. Crew Annual Report (2014, 2015, 2016, 2017, 2018, 2019)).

## 5. Discussion

This section presents the discussion in two parts.
5.1. Part 1: Signals from Horizontal, Vertical, and Trend Analysis of J. Crew Group Inc. from 2013 to 2019

## Signal 1: Total Establishments

The down trend of J. Crew's total establishments including retails outlets started from the year 2017 (drop by $10.65 \%$ over the previous year) onwards, excluding Madewell. In 2016, the total establishments were 460 excluding Madewell, but by the end of 2017, the number came down to 411 , which showed a closure of 49 outlets in one year. This is one of the strongest indicators to prove that the business was out of control from 2017 onwards.

## Signal 2: Net Sales

Furthermore, 2015-2016 is the first financial year that J. Crew presented their income statement with a loss of $3.65 \%$ from the previous year. On 30 April 2020, the company filed for bankruptcy, evidencing continual losses over the last five years. The company considerably failed to stop or control these losses in the subsequent years and eventually ended up in financial distress. This research is consistent with the study conducted by Laitinen and Gin Chong (1999) proved that 6 out of 10 firms end up falling into bankruptcy due to continuous deterioration of sales revenue.

## Signal 3: Total Revenue

Based on vertical analysis of the J. Crew Inc., total revenues started to fall from the year 2015-2016 ( $2.86 \%$ over the previous year) and continued in the subsequent years of 2016-2017 (2.96\% over the previous year) and 2018-2019 (2.38\% over the previous year). The first alarming signal came in the year 2015-2016 as sales revenue, which was when the major portion of total revenue of this company went into negative. This was a very strong indicator to the company about the performance and market acceptance of its products by customers. This showed the company's ignorance in developing the strategy on product innovation and development.

## Signal 4: Net Profit

As stated by Ooghe and De Prijcker in 2006, one of the main triggers that cause companies to fail is a decrease in net profit and sales volume. First, a drop in net profit recorded in the year 2014-2015 by (negative) $846.42 \%$ over the previous year. The reasons for this might be due to a magnanimous rise in impairment losses and notable losses from operations (334.11\%). In the subsequent year (2015-2016), the company recorded their net profit compared to a huge net loss from the previous year. There can be two reasons for this: the impairment loss was controlled (+94.60 over the previous year), or the cost of goods sold was almost a negligible percentage ( $0.09 \%$ ).

## Signal 5: Cost of goods sold or selling and administrative expenses

J. Crew's cost of goods sold, including buying and occupancy costs, absorbed the maximum portion of total revenue generated by the company. The amount spent on cost of goods sold, including buying and occupancy costs, had been constantly increasing since 2013 except 2015-2016 with $0.09 \%$ that was considerably less in comparison to all other financial years of this study. This is another signal that the management ignored and eventually turned out as one of the factors which triggered J. Crew to file for bankruptcy.

## Signal 6: Assets: Cash and Cash equivalents

J. Crew's cash and cash equivalent balances began deteriorating during the years 2014-2015 and 2015-2016, whereby decreases of $-29.08 \%$ and $20.96 \%$, respectively, were recorded. After net profit and sales, the third major symptom that pushes businesses to fail is the lack of cash and cash equivalents. The major source of cash inflows to this company was sales revenue, but the downward trend for sales started from 2014-2015 which, in turn, affected the cash inflows and the cash and cash equivalents.

This shows a lack of finance due to poor management. As stated by Walter (1957), a business is considered to be bankrupt when it has no cash balances to meet its short-term liabilities. Taking this into consideration, (Giannopoulos and Sigbjørnsen 2019; Svirina 2010) we can conclude that cash and cash equivalents are strong triggers that pushed this company to fail.

## Signal 7: Net property and equipment

The very first fall of J. Crew's net property and equipment by $1.53 \%$ over previous years was recorded in the financial year of 2015-2016. This drop continued in the subsequent years 2016-2017 and 2017-2018 with $20.09 \%$ and $15.83 \%$, respectively. Bad economic conditions and financial crisis pushed this company to control the fall of net property and equipment, which is consistent with similar findings of Ropega (2011).

## Signal 8: Net Intangible Assets

Net intangible assets started decreasing from the year 2013-2014 (15.73\% over the previous year) and continued to fall in 2015-2016 (44.93\%), 2016-2017 (2.29\%), 2017-2018 ( $31.43 \%$ ), and $2018-2019$ ( $2.37 \%$ ). Right from the year 2013 until 2019, there was drop recorded in the assets of J. Crew. This indicates the lack of knowledge on intangible assets by J. Crew's management and pitfalls in the strategy on intangible assets, as also stated by Svirina (2010).

## Signal 9: Goodwill

Goodwill fell drastically in the financial year of 2014-2015 by 90.45\%. Negative goodwill is also one of the strong indicators of bankruptcy (Drucker 1998). J. Crew Inc. ignored this signal right from the year 2013-2014 where the company recorded zero goodwill.

### 5.2. Part 2: Signals from Ratios Analysis of J. Crew Group Inc. from 2014 to 2019

## Signal 10: Return on Assets

Return on assets was significantly low from the year 2012-2013 (2.76\%). However, from 2014-2015 onwards, the company started incurring negative returns ( $-19.89 \%$ ) and this sparked, during 2015-2016, to a negative of $55.87 \%$. Return on assets is a direct measure to evaluate the company's overall profitability. According to Dance and Imade (2019), a negative return on assets indicates that the company is financially distressed which is true with J. Crew from 2014-2015 onwards.

## Signal 11: Inventory Turnover Ratio

This ratio was never in the negatives but the values were significantly low. This indicates that the company was hardly able to convert its inventory into sales less than 1.5 times for the last five years. This also specifies extremely poor movement of inventory which must have resulted in huge volumes of unsold stock.

## Signal 12: Asset Turnover

J. Crew's asset turnover was substantially low, i.e., 0.63 times during 2012-2013, 0.67 times during 2013-2014, 0.77 times during 2014-2015, and 1.10 times during 2015-2016. As stated by (Norita 2016), bankruptcy is the end result when debt overs the asset value of any business organization. This indicates that the company has been over capitalized and failed to utilize its existing assets in an efficient manner.

## Signal 13: Current and Quick Ratio

J. Crew's current ratio throughout the period from 2013-2014 until 2018-2019 is lower than the ideal current ratio standard of $2: 1$. Similarly, quick ratio also never met the standard of 1:1 even once during the last five financial years. Current ratio and quick ratio are very frequently used (Sharma and Mahajan 1980). J. Crew's measures of liquidity results depict that there is a greater gap between meeting the current debt using current assets. This was another signal which was ignored by J. Crew for more than five years.

## Signal 14: Interest Coverage Ratio

J. Crew's interest coverage ratio was 2.49 times during 2012-2013, 2.40 times during 2013-2014, -7.87 times during 2014-2015, -18.91 times during 2015-2016, 0.62 times during 2016-2017, -1.05 times during 2017-2018, and 0.01 times during 2018-2019. This shows inadequate capacity to pay off the interest expense. From the year 2016, J. Crew was suffering with the eradication of a USD 2 billion debt obligation, as revealed by Cessation of Operation Order (COO) in bankruptcy court. Upholding this huge debt with interest had become an overburden to the company and ended up with a negative result.

## Signal 15: Debt Equity Ratio

From the year 2014-2015, debt equity showed negative results every year. These results show that the company's ability to meet debts deteriorated year after year from 1.45:1 from the year 2012-2013 to -1.4:1 in the year 2018-2019. One of the very strong triggers for many firms to declare bankruptcy is the inability to pay the debt on time (Philosophov et al. 2006).

## 6. Conclusions

The tale of J. Crew typifies the potential despair of business direction. Perusing the 30 years of decision making at the organization is quite frightening as there were instances where the retailer was an industry head. The results of this study show that it was not the pandemic in 2019-2020 that pushed this retail giant into bankruptcy, but numerous reasons and financial turbulences. J. Crew's financial performance gave plenty of alarming signals that showed that the company was not on track but was ignored by the company. Right from net profit, operating expenses, total revenue, goodwill, return on assets, liquidity, solvency, and all 15 indicators presented in this study did not meet the industry ideal standard for a continuous period of 5 years.

Although J. Crew tried different strategies to withstand its previous goodwill in various ways, due to the fluctuations, things started to differ. Individuals began purchasing garments online as opposed to visiting shopping centers. Clients were searching for cheap, popular garments rather than venture pieces following the Great Recession. Internet-based life detonated and propelled a wide assortment of style influencers to mass crowds. Conventional retailers who were delayed were not in a good state, attempting to comprehend the market along with demands that retail was not evolving. Regardless of whether the organization can rebuild and afterward contend in a post-pandemic world is not yet clear.

Author Contributions: All authors contributed equally to this research work. All authors discussed the results and contributed to the final manuscript. All authors have read and agreed to the published version of the manuscript.

Funding: This research received no external funding.
Institutional Review Board Statement: Not applicable.
Informed Consent Statement: Not applicable.
Data Availability Statement: Not applicable.
Conflicts of Interest: The authors declare no conflict of interest.

## References

Akram, Umair, Melinda Timea Fülöp, Adriana Tiron-Tudor, Dan Ioan Topor, and Sorinel Căpuşneanu. 2021. Impact of digitalization on customers' wellbeing in the pandemic period: Challenges and opportunities for the retail industry. International Journal of Environmental Research and Public Health 18: 7533. [CrossRef]
Altman, Edward I. 1968. Financial Ratios, Discriminant Analysis and the Prediction of Corporate Bankruptcy. Journal of Finance 23: 589-609. [CrossRef]
Amankwah-Amoah, Joseph, Zaheer Khan, and Geoffrey Wood. 2020. COVID-19 and business failures: The paradoxes of experience, scale, and scope for theory and practice. European Management Journal 39: 179-84. [CrossRef]
Appel, Alexandra, and Sina Hardaker. 2021. Strategies in Times of Pandemic Crisis—Retailers and Regional Resilience in Würzburg, Germany. Sustainability 13: 2643. [CrossRef]

Azadinamin, Amir Saleh. 2012. The Bankruptcy of Lehman Brothers: Causes of Failure $\mathcal{E}$ Recommendations Going Forward. Zug: Swiss Management Center (SMC) University. [CrossRef]
Bilgihan, Anil. 2016. Gen Y customer loyalty in online shopping: An integrated model of trust, user experience and branding. Computing Human Behaviour 61: 103-13. [CrossRef]
Brodie, Roderick J., Ana Ilic, Biljana Juric, and Linda Hollebeek. 2013. Consumer engagement in a virtual brand community: An exploratory analysis. Journal of Business Research 66: 105-14. [CrossRef]
Burt, Steve, John Dawson, and Leigh Sparks. 2003. Failure in international retailing: Research propositions. The International Review of Retail, Distribution and Consumer Research 13: 355-73. [CrossRef]
Choi, Daeheon, Chune Young Chung, and Jason Young. 2019. Sustainable Online Shopping Logistics for Customer Satisfaction and Repeat Purchasing Behavior: Evidence from China. Sustainability 11: 5626. [CrossRef]
Claessens, Stijn, and M. Ayhan Kose. 2013. Introduction and Description of Financial. CAMA Working Paper 06/2013. Available online: https:/ / doi.org/10.2139/ssrn. 2295201 (accessed on 7 July 2020).
Dance, Mesak, and Sukartha Imade. 2019. Financial ratio analysis in predicting financial conditions distress in Indonesia Stock. Exchang Russian Journal of Agricultural and Socio-Economic Sciences 86: 114-31.
Drucker, Peter. 1998. Managing for Results. London: Routledge, pp. 29-53. (In Russian)
Ejaz, Abdullah, Ramona Birau, Cristi Spulbar, Ramona Buda, and Andrei Cosmin Tenea. 2020. The impact of domestic portfolio diversification strategies in Toronto stock exchange on Canadian textile manufacturing industry. Industria Textila 71: 215-22. [CrossRef]
Ghasemi, Peiman, Amir Mehdiabadi, Cristi Spulbar, and Ramona Birau. 2021. Ranking of Sustainable Medical Tourism Destinations in Iran: An Integrated Approach Using Fuzzy SWARA-PROMETHEE. Sustainability 13: 683. [CrossRef]
Giannopoulos, Georgios, and Sindre Sigbjørnsen. 2019. Prediction of Bankruptcy Using Financial Ratios in the Greek Market. Theoretical Economics Letters 9: 1114-28. [CrossRef]
Hayat, Muhammad A., Huma Ghulam, Maryam Batool, Muhammad Z. Naeem, Abdullah Ejaz, Cristi Spulbar, and Ramona Birau. 2021. Investigating the Causal Linkages among Inflation, Interest Rate, and Economic Growth in Pakistan under the Influence of COVID-19 Pandemic: A Wavelet Transformation Approach. Journal of Risk and Financial Management 14: 277. [CrossRef]
J. Crew Annual Report. 2014. J. Crew Annual Report for FY Ending 2014. Available online: http://www.annualreports.com/ HostedData/AnnualReportArchive/j/NYSE_JCG_2012.pdf (accessed on 7 July 2020).
J. Crew Annual Report. 2015. J. Crew Annual Report for FY Ending 2015. Available online: http://www.annualreports.com/ HostedData/AnnualReportArchive/j/NYSE_JCG_2014.pdf (accessed on 7 July 2020).
J. Crew Annual Report. 2016. J. Crew Annual Report for FY Ending 2016. Available online: http://www.annualreports.com/ HostedData/AnnualReportArchive/j/NYSE_JCG_2015.pdf (accessed on 7 July 2020).
J. Crew Annual Report. 2017. J. Crew Annual Report for FY Ending 2017. Available online: http://www.annualreports.com/ HostedData/AnnualReportArchive/j/NYSE_JCG_2016.pdf (accessed on 7 July 2020).
J. Crew Annual Report. 2018. J. Crew Annual Report for FY Ending 2018. Available online: http://www.annualreports.com/ HostedData / AnnualReportArchive/j/NYSE_JCG_2017.pdf (accessed on 7 July 2020).
J. Crew Annual Report. 2019. J. Crew Annual Report for FY Ending 2019. Available online: http://www.annualreports.com/ HostedData/AnnualReports/PDF/NYSE_JCG_2018.pdf (accessed on 7 July 2020).
Kaka, Fakhru Abdulla. 1965. Analysis of the Causes of Small Business Failure. Ph.D. dissertation, Kansas State University, Manhattan, KS, USA. Available online: https:/ /krex.k-state.edu/dspace/handle/2097/15231 (accessed on 11 July 2020).
Kevin, M. Lewis. 2018. Bankruptcy Basics: A Primer. CRS Report. Available online: https://sgp.fas.org/crs/misc/R45137.pdf (accessed on 15 October 2021).
Kleemann, Florian C., and Andreas H. Glas. 2020. Einkauf 4.0: Digitale Transformation der Beschaffung-2 Auflage. Wiesbaden: Springer.
Kücher, Alexander, Stefan Mayr, Christine Mitter, Christine Duller, and Birgit Feldbauer-Durstmüller. 2020. Firm age dynamics and causes of corporate bankruptcy: Age dependent explanations for business failure. Review of Managerial Science 14: 633-61. [CrossRef]
Laitinen, Erkki K., and H. Gin Chong. 1999. Early-warning system for crisis in SMEs: Preliminary evidence from Finland and the UK. Journal of Small Business and Enterprise Development 6: 89-102. [CrossRef]
Mellahi, Kamel, Paul Jackson, and Leigh Sparks. 2002. An exploratory study into failure in successful organizations: The case of Marks \& Spencer. British Journal of Management 13: 15-29.
Norita. 2016. An Analysis of Telecommunication Vendor Company Bankruptcy Potency Based on the Problematic Financial Ratio with Altman, Springate And Zmijewski Methods. The International Journal of Organizational Innovation 8: 234-50.
Oncioiu, Ionica, Sorinel Căpușneanu, Dan Ioan Topor, Attila Szora Tamaș, Alina-Georgiana Solomon, and Tatiana Dănescu. 2021. Fundamental Power of Social Media Interactions for Building a Brand and Customer Relations. Journal of Theoretical and Applied Electronic Commerce Research 16: 1702-17. [CrossRef]
Ooghe, Hubert, and Sofie De Prijcker. 2008. Failure processes and causes of company bankruptcy: A typology. Management Decision 46: 223-42. [CrossRef]
Philosophov, Leonid V., Jonathan A. Batten, and Vladimir L. Philosophov. 2006. Multi-period Bayesian Bankruptcy Prediction Using Financial Ratios and the Maturity Schedule of Long-Term Debt. Available online: http://www.aha.ru/~\{\}soliton/english/ articles/MBPT.pdf (accessed on 7 December 2020).

Qin, Xuelian, Zhixue Liu, and Lin Tian. 2020. The Strategic Analysis of Logistics Service Sharing in an e-Commerce Platform. Omega 92: 102153. [CrossRef]
Qaiser Gillani, Durdana, Syed A. S. Gillani, Muhammad Z. Naeem, Cristi Spulbar, Elizabeth Coker-Farrell, Abdullah Ejaz, and Ramona Birau. 2021. The Nexus between Sustainable Economic Development and Government Health Expenditure in Asian Countries Based on Ecological Footprint Consumption. Sustainability 13: 6824. [CrossRef]
Ropega, Jaroslaw. 2011. The reasons and symptoms of failure in SME. International Advances in Economic Research 17: 476-83. [CrossRef]
Sharma, Subhash, and Vijay Mahajan. 1980. Early warning indicators of business failure. Journal of Marketing 44: 80-9. [CrossRef]
Sheth, Jagdish. 2020. Impact of Covid-19 on consumer behavior: Will the old habits return or die? Journal of Business Research 117: 280-83. [CrossRef] [PubMed]
Svirina, Anna. 2010. Measuring managerial efficiency: A balanced approach. Global Journal of Business Research 4: 97-104. Available online: http:/ / www.theibfr.com / ARCHIVE/GJBR-V4-N1-2010.pdf\#page=99 (accessed on 23 July 2021).
Townsend, William R. 2010. Innovation and the value of failure. International Journal of Management and Marketing Research 3: 75-84.
Ullal, Mithun S., Cristi Spulbar, Iqbal Thonse Hawaldar, Virgil Popescu, and Ramona Birau. 2021. The impact of online reviews on e-commerce sales in India: A case study. Economic Research-Ekonomska Istraživanja 34: 2408-22. [CrossRef]
US Courts. 2020. Chapter 11-Bankruptcy Basics. Available online: https://www.uscourts.gov/services-forms/bankruptcy/ bankruptcy-basics/chapter-11-bankruptcy-basics (accessed on 15 October 2020).
Walter, James E. 1957. The Determination of Technical Solvency. Journal of Business 30: 30-45. [CrossRef]
White, Michelle J. 2011. Corporate and Personal Bankruptcy Law. Annual Review of Law and Social Science 7: 139-64. [CrossRef]
Zhang, Hongxu, Joseph Amankwah-Amoah, and Jonathan Beaverstock. 2019. Toward a construct of dynamic capabilities malfunction: Insights from failed Chinese entrepreneurs. Journal of Business Research 98: 415-29. [CrossRef]


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