Impact of Financing Through Factoring

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Abstract
The survival of the economy depends on the continuity of supply of goods and services to the society it needs. This supply is discharged by the firms working in it (the economy). In this discharging journey, every firm goes through certain regular operating activities such as purchasing supplies (raw materials, business inputs), carrying out business operations/activities with the help of human resources, running factory operations, executing marketing operations, etc. Discharging all these activities demand the payments on time and/or in time and on regular basis. The timely and regular payments may be financed via a non-traditional mode of financing, i.e. by the encashment of trade receivables through factoring. One of these prioritized payments is the payment of wages and salaries, since the presence of human resources is the must in an organization, even in a highly automated or robotic firm. This study finds the impact of financing the payment of salaries and wages by the encashment of trade receivables through factoring on the long-term financial growth of the firms that use this kind of financing in Bangladesh which is significant and insignificant statistically. In the study, the financing impact has been measured in the traditional proxies such as return on assets (ROA), return on equity (ROE), current ratio (CR) including two deep-rooted growth measurement tools: internal growth rate (IGR) and sustainable growth rate (SGR). The empirical models used in the study to measure the effect are of multiple regression. The models used the panel data consisting of 5400 firm year observations of 2014 – 2019. The study has got linkage with some underpinning theories in finance such as Liquidity Preference Theory, Pecking Order Theory, and M-M theory.
Keywords: Encashment, Trade Receivables, Factoring, Long-term Financial Growth, ROA, ROE, CR, IGR, SGR, Liquidity Preference Theory, Pecking Order Theory, M-M theory

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Introduction

The survival of the firms means the survival of the society. They provide the goods and services the inhabitants of the society need. To keep running the operations of these firms as well as to maintain the continuity of the supply of the necessary goods and services to the society, the firms discharge some regular activities such as purchasing raw materials (business inputs), employing and managing human resources, running the factory operations, conducting sales activities, etc. These activities require the regular and in-time payment. Generally the short-term finance caters these payments. One of the short-term financing sources is the use of the encashment of trade receivables through factoring. This study intends to find the impact of such financing on the long-term financial growth of the firms that use this mode of financing. In this motto, an empirical study was conducted.

Based on the most usage by the study-firms and previous researches, the kinds of payments that are catered commonly through this financing have been categorized under four heads: financing the payments of (i) raw materials purchased, (ii) salaries and wages accrued, (iii) overhead expenses incurred, and (iv) sales administration expenses due (Brealy, 2012). These four types of financing were labelled in the study as P, SW, OH, and SA respectively and they worked as explanatory variables. There was a mediator in the study named current assets labelled as CA. There were two moderators in the study named equity and sales labelled as E and S respectively. This study has picked SW to find the direct impact of financing (the payment of salaries and wages) by the encashment of trade receivables through factoring on the long-term financial growth of the firms involved in manufacturing and/or providing goods, services and selling the same on credit in Bangladesh as depicted in Figure 1.

Why SW? In the study, SW refers to the financing the payment of salaries and wages of human resources employed in the study-firms. On a priority basis, SW has been picked first out of P, SW, OH, and SA. Behind this prioritized selection, the help has been taken from Maslow's Need Hierarchy Theory (Maslow, 1943). In the study, SW has been considered as the first level need of a firm, since no firm can work effectively and efficiently without the existence of employees. And most of the employees in a firm work for the fulfillment of their basic needs such as physiological needs fulfilling the needs of food, shelter/housing, clothing, health/medicine, etc. (Luthans, 2011). So as a prioritized variable, out of four variables, SW has been selected for this study to find the effect of financing the payment of salaries and wages (SW) by the encashment of trade receivables through factoring on the long-term financial growth of the firms involved in producing and/or providing goods, services and selling the same on credit in Bangladesh.
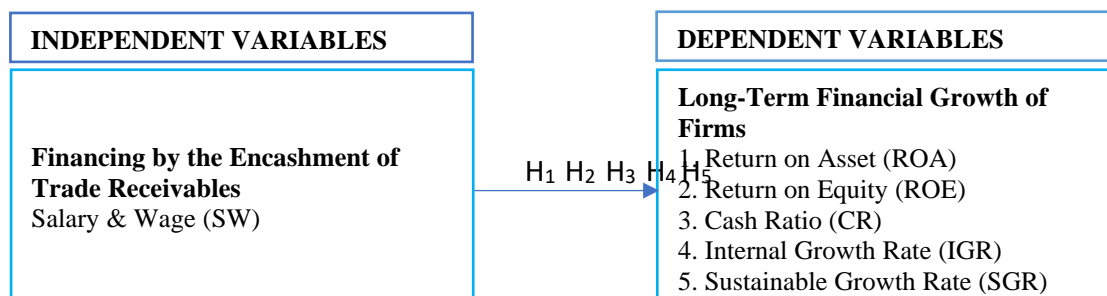
INDEPENDENT VARIABLES	DEPENDENT VARIABLES
Financing by the Encashment of Trade Receivables Salary & Wage (SW)	**Long-Term Financial Growth of Firms** 1. Return on Asset (ROA) 2. Return on Equity (ROE) 3. Cash Ratio (CR) 4. Internal Growth Rate (IGR) 5. Sustainable Growth Rate (SGR)

H_1 H_2 H_3 H_4 H_5

Figure 1
Research Framework
Source: The Author

The rest of the paper is organized as follows: section 2 provides literature review covering both underpinning theories and previous empirical research works, section 3 presents research method used in the study, section 4 describes the results found in the study, section 5 interprets the results followed by the conclusion in section 6.

Literature Review
Theoretical Review

The theories that underpin this study include: (i) Liquidity Preference Theory, (ii) Pecking Order Theory, and (iii) Modigliani-Miller (M-M theory) which are explained here briefly:

The Liquidity Preference Theory

This theory was developed by John Maynard Keynes during the economic depressions in 1930s. It was published in his book "The General Theory of Employment, Interest, and Money" published in 1936 (Stephenson, 1950; Jhingan, 2004).

In his book, Keynes showed that people hold money for three distinct motives: (i) transaction motive to meet up day-to-day needs such as buying groceries, paying rents, paying utility bills, etc.; (ii) precautionary motive to face any unforeseen costs such as car repair, buying house, etc.; (iii) speculative motive to hold assets in the most liquid form when interest rate is low and to invest the money held in future to obtain capital gain, when it is predicted that the price of the invested assets will rise.

The money sourced through the invoice finance, i.e., by the encashment of trade receivables through factoring may be related to meeting up the transaction purposes of firms: to pay utilities bills, advertisement bills, to procure raw materials to address new work orders, to pay salaries and wages, to pay installments of term loan, etc. Similarly, business firms can also utilize the cash (sourced with the help of factoring) for precautionary motives such as procuring raw materials at a favorable (lower) price to reduce the cost of production to unleash a higher profit. The same fund may also be invested in the capital market when securities' prices fall and selling the same when prices up and thereby realizing capital gain. Thus, the liquidity preference theory covers the explanatory variable in the study: financing the payments of salaries and wages (SW) by the encashment of trade receivables through factoring.

Pecking Order Theory

The Pecking Order Theory was developed by G. Donaldson, S. C. Myers, and N.S. Majluf (Bhama, Jain & Yadav, 2015). According to this theory, managers of firms prefer to use internal source such as retained earnings to finance their investments (Donaldson, 1961). Further, Myers (1984), Myers and Majluf (1984) state that insiders (managers) have better information about the firm than outsiders [investors] (Bhama, Jain & Yadav, 2015). This gap is the asymmetric information. The theory hypotheses that financing decision follows a hierarchy in regard to choosing source of finance. It states that firms always prefer to use internal sources of fund such as retained earnings when available and also like debt over equity as a source of external source of finance when it is required to issue new shares (Thomson, 2007). This theory assumes no target capital structure.

In a word, the sources of finance as per preference of a company stand as: (i) retained earnings, (ii) non-convertible bond, (iii) preference shares, (iv) hybrid securities like convertible debentures, and (v) equity. Encashment of trade receivables through factoring provides an external source of finance. It is not equity or debt based fund. It is receivables

based fund. The study extends Pecking Order Theory to this external source of fund to find how it impacts on the long-term financial growth of a firm.

Every financing decision is aimed at maximizing value of the firm and the value should be sustainable. The study intends to find a relationship between financing through factoring, as a prioritized source of external finance and long-term financial growth of the firms involved in manufacturing and/or providing goods, services and selling the same on credit to the creditworthy institutional buyers (which are the blue chip firms). In this sense, a firm when uses funds through factoring modality, it relates to Pecking Order Theory. The study is an endeavor to see whether the firms under the study follow the Pecking Order Theory knowingly or unknowingly to use factoring finance as a prioritized source of external fund.

M-M Theory
In 1958, Professor Franco Modigliani and Professor Merton H. Miller launched a theory of optimum capital structure to influence the value of a firm in their study "The Cost of Capital, Corporation Finance, and the Theory of Investment" published in *American Economic Review* in the edition of June 1958 (Koh, Ang, Brigham, & Ehrhardt, 2014). They argued that debt in the capital structure of a firm does not impact on its value restructure.

The study tries to find any relationship between financing the payment of a value creating cost such as salary and wage by the encashment of trade receivables through factoring and the long-term financial growth of the firms involved in manufacturing and/or providing goods and services and selling the same on credit to the creditworthy institutional buyers. MM theory emphasizes on the operating income of the firm irrespective of the sources of capital. The study gets a link with finding how operating income is influenced by the cash flow through factoring.

The funding arranged through factoring is generally for working capital purpose. Working capital is a part of total capital of a company. This fund is not debt funded, it is arranged through selling firm's receivables (invoices). The study extends MM theory to finding how financing through factoring trade receivables influences operating income to impact the long-term financial growth of a firm.

Empirical Literature Review
Researchers and scholars have studied the encashment of trade receivables based on different contexts and standpoints. This study has brought those studies' findings into consideration. The study provides a critical review of previous studies based on the relationship between financing by the encashment of trade receivables through factoring and its impact on the long-term financial growth of the firms.

Dekesi and Ozogbuda (2019) conducted a survey study on 10 oil servicing companies in Nigeria since 2013 – 2017 to see the relationship between managing trade receivables and liquidity position of a company. Dekesi and Ozogbuda (2019) found statistically significant negative relationship between ACP, ART and CR, QR. It means that high level of trade receivables lowers the liquidity level of a company providing oil services in Nigeria. This study offers a remedy here to improve the liquidity position of those companies studied. If those companies would have used factoring finance, the companies would not suffer from the lack of liquidity condition.

Sindani (2018) conducted a study on 359 SMEs in Kakamega County, Kenya to find the effect of using accounts receivable finance on the growth of SMEs. She used the financial modalities of factoring, securitization, and collateralization under invoice finance in her study. She found

positive relationship between that the use of invoice finance and the growth of SMEs. The proxies of measuring the growth were profit and sales turnover. However the proxies such as ROA, ROE, CR, IGR, and SGR may also be used to determine the growth of a firm which have been focused in this study. Sindani's study focused only on the SME firms, but factoring is also now-a-days being used by large corporates (Klapper 2005) and the large firms have also been covered in the present study.

Paul, Guerma, and Devi (2018) conducted a study using cross-sectional data of 262 listed manufacturing firms in Bursa, Malaysia over a period of five years during 2007-2011. It is gleaned from the study that in spite of increasing investment in accounts receivable, the manufacturing firms can bring out cash from the invested receivables with the help of factoring finance. The firms feel comfort for increasing investment in accounts receivable. They can increase their market share by relaxing credit period (payment period) of their products sold. This leads to increasing sales revenue and value position of the firms. Moreover, the firms can also save their valuable management times by outsourcing the managing tasks of receivables to factoring companies.

Daniel (2017) conducted a study on short-term financing decisions and financial performance of non-financial firms listed at Nairobi Securities Exchange (NSE), Kenya. He conducted the study on 39 non-financial firms listed in NSE over the period of 2011 – 2014. Daniel (2017) mentions that factoring is one of the short-term financial decisions. He found that averagely current assets are 40 percent of total assets of a firm and decisions regarding day to day management in relation to short-term financial management consume 80 percent time of a finance manager (Dandapani, Chang and Prakash, 1995). Daniel (2017) expressed the performance of factoring through return on asset (ROA), return on equity (ROE), and Tobin-Q. But this study measures the performance in terms of ROA, ROE, CR, IGR, and SGR.

Darabos and Martha (2017) mention that factoring is now not a marginal financial service, it meets up 10% short-term financial needs of SMEs in Hungary. They show that factoring is a major element of short-term financing toolkit. The study is focused on the comparison of factoring as a short-term financing option in international level and its status in Hungary in terms of sectorial concentration, trends, customers' size, etc. The study states that there is a real need for factoring from sellers in the market to get short-term financing and to enhance market share. It creates further need to conduct a research to see how this financing impacts on the long-term financial growth of these sellers. This study is aimed at this motto.

Research Gaps
Firstly, most of the studies have shown factoring as an alternative source of fund. But what is the impact of this financing is absent. Every financing decision aims at maximizing wealth of the shareholders or owners of the firm (Graham, Smart, & Megginson, 2010). This study aims at showing the impact empirically with the help of financing a specific need [financing the payment of salaries and wages (SW)] and its impact on the long-term financial growth of the firms. *Secondly*, some studies have shown factoring as a tool of managing accounts receivable. They have presented it as an ideal source of fund for small enterprises that lack collateral to have bank loan. However, Klapper (2005) states that large corporates are also using factoring as an option of finance. The present study also takes into consideration to include the large corporates that are using factoring facility in the market. *Thirdly*, most of the studies are based on developed economies where factoring is a mature market. Europe still holds the top position in the global factoring industry (FCI, 2019). The present study is based on a developing economy.

Research Methodology

Empirical Models

The general model followed in the study is as follows:

$Y_{it} = \alpha + X_{it}\beta + u_{it}$

where:

Y_{it} is the dependent variable representing the value of ith firm at time t. i refers to firms, in the study i varies from 1st firm to 75th firm, i.e. $i = 1$ ……..75. t refers to the time period, in the study $t = 2014$ ……2019. X_{it} is the vector of independent variables. βs are the slope coefficients estimated, α is an intercept or a constant term, and u_{it} is disturbance or error term.

Effect Measurement Models

The general econometric model was expanded to measure the effect covering all explanatory variables. The present study has focused on the explanatory variable SW. The equations were as follows:

$ROA = \alpha + \beta_1 P_{it} + \beta_2 SW_{it} + \beta_3 OH_{it} + \beta_4 SA_{it} + \beta_5 E_{it} + \beta_6 S_{it} + u_{it}$ **(3.2)**

$ROE = \alpha + \beta_1 P_{it} + \beta_2 SW_{it} + \beta_3 OH_{it} + \beta_4 SA_{it} + \beta_5 E_{it} + \beta_6 S_{it} + u_{it}$ **(3.3)**

$CR = \alpha + \beta_1 P_{it} + \beta_2 SW_{it} + \beta_3 OH_{it} + \beta_4 SA_{it} + \beta_5 E_{it} + \beta_6 S_{it} + u_{it}$ **(3.4)**

$IGR = \alpha + \beta_1 P_{it} + \beta_2 SW_{it} + \beta_3 OH_{it} + \beta_4 SA_{it} + \beta_5 E_{it} + \beta_6 S_{it} + u_{it}$ **(3.5)**

$SGR = \alpha + \beta_1 P_{it} + \beta_2 SW_{it} + \beta_3 OH_{it} + \beta_4 SA_{it} + \beta_5 E_{it} + \beta_6 S_{it} + u_{it}$ **(3.6)**

Where:

ROA = Return on Assets of firm i at time t

ROE = Return on Equity of firm i at time t

CR = Current Ratio of firm i at time t

IGR = Internal Growth Rate of firm i at time t

SW = Amount of Salary and Wages of firm i at time t

α = Constant term

βs = Coefficients of explanatory variables

Subscript i = Firms (cross-section dimensions) ranging from 1 to 75

Subscript t = Years (time-series dimensions) ranging from 2014 to 2019

u_{it} = Disturbance or error term of the model

Research Hypotheses

The research hypotheses postulated through literature review are as follows based on *null* approach:

H_{01}: There is *no* significant relationship between financing the payment of salaries and wages (SW) by the encashment of trade receivables through factoring and long-term financial growth measured in return on assets (ROA) of the firms involved in manufacturing and/or providing goods, services and selling the same on credit in Bangladesh.

Similarly for H_{02}, H_{03}, H_{04}, H_{05}: There is *no* significant relationship between financing the payment of salaries and wages (SW) by the encashment of trade receivables through factoring and long-term financial growth measured in return on equity (ROE), current ratio (CR), internal growth rate (IGR), sustainable growth rate (SGR) respectively of the firms involved in manufacturing and/or providing goods, services and selling the same on credit in Bangladesh.

Operationalization and Measurement of Variables

The measurement models of determining the value of the variables used in the study are shown in Table 1:

Table 1
Operationalization and Measurement of the Variables of the Study

Category	Variables	Operationalization	Measurement Formula	Expected Hypothesized Direction
Dependent Variable	Long-Term Financial Growth	Return on Assets (ROA)	ROA = Earnings Before Interest and Taxes (EBIT) / Total Assets	Positive or Negative
		Return on Equity (ROE)	ROE = Earning Before Interest and Taxes (EBIT) / Total Equity	Positive or Negative
		Current Ratio (CR)	CR = Total Currest Asstes / Total Current Liabilities	Positive or Negative
		Internal Growth Rate (IGR)	(Retained Earnings / Net Income) X (Net Income / Equity) X (Equity / Assets)	Positive or Negative
		Sustainable Growth Rate (SGR)	Plowback Ratio X Return on Equity	Positive or Negative
Independent Variables	Financing by the Encashment of Trade Receivables through Factoring	Purchase (P)	P = Total Yearly (12 Months) Purchase Amount	Positive or Negative
		Salary and Wage (SW)	SW = Total Yearly Salary and Wage Paid	Positive or Negative
		Overhead (OH)	OH = Total Yearly Overhead Costs Paid	Positive or Negative
		Sales Administration Expenses (SA)	S = Total Yearly Sales Administration Expenses Paid	Positive or Negative
Mediating Variable	Current Assets	Current Assets (CA)	CA = Total Current Assets Held at the End of the Year	Positive or Negative
Moderating Variable	Firm Characteristics	Equity Size (E)	E = Equity Position at the End of the Year	Positive or Negative
		Sales Turnover (S)	S = Yearly Sales Turnover	Positive or Negative

Data
Following the approach of Zikmund, Babin, Carr, Adhikari, and Griffin (2013), the study firstly takes the view on total factoring clients in Bangladesh enjoyed and/or have been enjoying factoring facility at least five to six years which comprises the sampling frame of the study. The factoring industry is still in meager-volume in the country though it is growing increasingly in recent time. In this consideration, around 100 firms were targeted to visit to collect the required data. Finally, 75 firms were found feasible with reference to the objectives of the study. The study period is from 2014 to 2019. The data were collected from the financial statements the firms maintain. The data are cross sectional and time series in nature. The rate of missing data was expected to be zero. The number of firm-year observations stood

5400. The reason of choosing six years is that the industry has been robust recently, since 2016, after some banks have joined the market.

Data Analysis Techniques

The study has conducted the relevant ratio analyses based on the data. The study has conducted both descriptive statistics and inferential statistics with SPSS. Excel worksheets have also been used for computing necessary calculations such as financial ratios, summary of the data, etc. The study has taken the help of multiple regression analysis to execute the models developed in the study. To establish the statistical significance of the respective hypotheses, the regression analysis is conducted at 95% confidence level.

Results

As shown in Table 2, the firms engaged in the businesses of manufacturing, trading, and services used this financing on average BDT 5.37 million, 5.12 million, and 12.26 million respectively for the payment of salary and wage. The overall average usage of this financing was BDT8.31 million for the same payment. The average return on assets (ROA) of the firms involved in the business of manufacturing, trading, and services stood 21.79%, 44.82%, AND 39.00% respectively. The same for ROE stood 34.57%, 55.24%, and 57.59% respectively. Similarly CR stood 2.70 times, 4.88 times, and 6.05 times respectively. On the other hand IGR registered 24.23%, 50.84%, and 44.36% respectively. The SGR emerged at 39.14%, 63.46%, and -7.99% respectively.

Table 2
Financing by the Encashment Trade Receivables through Factoring and Long-Term Financial Growth (As Per Nature of Business)

BDT (Million)

NB	P	SW	OH	SA	ROA	ROE	CR	IGR	SGR
M	27.811	5.367	3.652	2.838	21.790	34.573	2.696	24.228	39.141
T	56.704	5.120	4.576	4.388	44.822	55.238	4.884	50.840	63.457
S	43.962	12.257	6.501	6.724	38.995	57.590	6.046	44.361	-7.988
Overall	43.358	8.307	5.169	4.996	36.116	50.762	4.807	40.858	25.484

Source: Study Data (2020)
Note: NB: Nature of Business, M: Manufacturing, T: Trading, S: Service

Descriptive Statistics

Table 3 shows that the sample consisted of 449 observations. Out of 75 firms, one firm started operation in November, 2014. The average payment of salary and wage stood BDT 8.31 million, with standard deviation of BDT 15.17 million indicating low variability from the actual values. The range of financing for this expense varies from minimum amount of BDT 0.00 to the maximum amount of BDT 90.25 meaning that some firms did not use this financing for the payment of salary and wage. On the other hand, some firms used this financing up to maximum BDT 90.25 million during the study period.

Table 3:
Descriptive Statistics of All Variables (Overall)

Variable	Observation	Minimum	Maximum	Mean	Std. Deviation
ROA	375	0.61	629.50	36.12	46.50
ROE	375	-1111.25	1102.42	50.76	139.83
CR	449	0.05	249.00	4.81	14.64
IGR	378	0.58	683.76	40.80	54.01
SGR	378	-7779.08	1094.06	25.80	448.30
P	449	0.00	735.09	43.36	86.64
SW	449	0.00	90.25	8.31	15.17
OH	449	0.00	90.25	5.17	11.15
SA	449	0.00	90.25	5.00	9.97
CA	449	0.77	2116.21	119.01	286.84
S	449	3.07	2671.73	294.15	496.94
E	449	-83.00	1465.18	102.53	223.56

Source: Study Data (2020)

Trend Analysis
Figure 2 shows the average position of financing the payment of salary and wages (SW) by the encashment of trade receivables by the firms that have been enjoying factoring. It shows an average upward trend of 25.25% in the use of this financing during the total study period. There is only one slash of 1.61% from 2018 to 2019 in using this financing to pay salary and wages (SW). But in other every year, there is an increasing trend in the use of the encashment of trade receivables (factoring). During the periods from 2014 to 2015, 2015 to 2016, 2016 to 2017; the increasing rates are as 65.36%, 21.42%, 25.81% respectively.
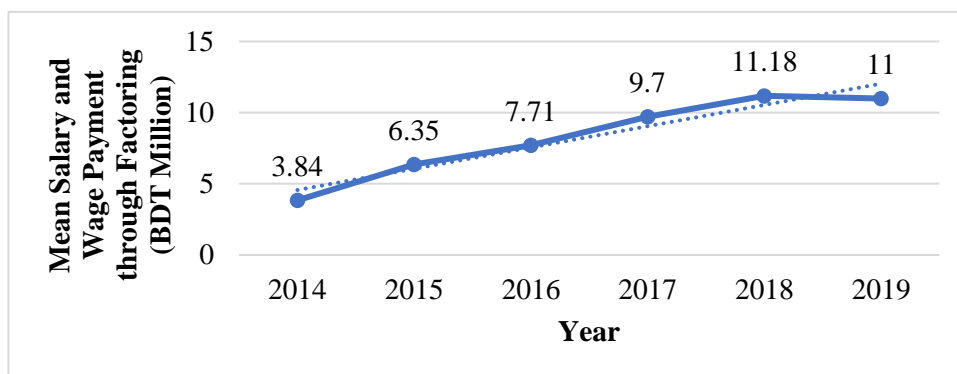

Figure 2:
Trend of Salary and Wage (SW) Finance through Factoring for the Period 2014 – 2019
Source: Study Data (2020)

Data Diagnostic Tests
The data-diagnostic tests were conducted to ensure that the postulations of Classical Linear Regression Model (CLRM) that include tests of multicollinearity, heteroscedasticity, autocorrelation, and Hausman specification (fixed effects model or random effects model).

The VIF (variance inflation factors) results of all predictors is below 10 except SA[2]. The results of heteroscedasticity test show the homoskedasticity or homogeneity in proxy (or Y value) through ROE and SGR ($p > 0.05$). The Durbin-Watson results (test for autocorrelation) show the value between 1.5 and 2.5 through ROE, CR, and SGR meaning that the data are not auto-correlated.

Effect
Tables 4, 5, 6, and 7 show the effect of financing SW by the encashment of trade receivables through factoring. The results are presented in the proxies of ROA, ROE, CR, IGR, and SGR.

Effect through ROA
Table 4 presents the results of the model 3.2. The results state that the financing the payment of salary and wages (SW) by the encashment of trade receivables has negative (-0.123427) effect on the return on assets (ROA) but not statistically significant ($p = 0.540 > 0.05$). The results also show that R square (0.059) is statistically significant ($p = 0.001 < 0.05$).

Table 4
Regression Results with ROA

Variable	Coefficient	Standard Error	t-Value	P
Constant	39.963302	2.872939	13.910250	0.000
SW	-0.123427	0.201223	-0.613383	0.540
R Square =0.059; P = 0.001				

Source: Study Data (2020)

Effect through ROE
Table 5 presents the results of the model 3.3. The results show that financing the payment of salary and wages (SW) by the encashment of trade receivables through factoring has positive (0.930672) impact on ROE but it is not statistically significant ($p = 0.133 > 0.05$). The results also show that R square (0.019) is not statistically significant ($p = 0.318 > 0.05$).

Table 5
Regression Results with ROE

Variable	Coefficient	Standard Error	t-Value	P
Constant	47.536135	8.819525	5.389875	0.000
SW	0.930672	0.617726	1.506610	0.133
R Square =0.019; P = 0.318				

Source: Study Data (2020)

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[2] This was unavoidable due to the data given from the respondents. Most of the firms are of SME categories. They do not maintain financials in standard format of financial statements. Sometimes, they gave data in the same amount under more than one variable. For instance, "total financing amounts of the payments of overhead expenses and sales administration expenses through factoring were given as 5% and 5% respectively of the total factoring facility availed in the year. That is, the payments of both overhead expenses and sales administration were in the same amount in a year.

Effect through CR

Table 6 presents the results of the model 3.4. The results reveal that financing the payment of salary and wages (SW) by the encashment of trade receivables with factoring has negative (-0.151545) impact on the position of current ratio (CR) of the firms and it is significant (p = 0.012 < 0.05) statistically. The results also show that R square (0.108) is statistically significant (p = 0.000 < 0.05).

Table 6
Regression Results with CR

Variable	Coefficient	Standard Error	t-Value	P
Constant	5.449704	0.796506	6.842009	0.000
SW	-0.151545	0.060040	-2.524047	0.012
R Square = 0.108; P = 0.000				

Source: Study Data (2020)

Effect through IGR

Table 7 presents the results of the model 3.5. The results show that financing the payment of salary and wages (SW) by the encashment of trade receivables through factoring has negative (-0.193631) impact on the internal growth rate (IGR) of the firms but it is not statistically significant (p = 0.408, > 0.05). The results also show that R square (0.058) is statistically significant (p = 0.001 < 0.05).

Table 7
Regression Results with IGR

Variable	Coefficient	Standard Error	t-Value	P
Constant	44.826116	3.320108	13.501404	0.000
SW	-0.193631	0.233782	-0.828254	0.408
R Square = 0.058; P = 0.001				

Source: Study Data (2020)

Effect through SGR

Table 8 presents the results of the model 3.6. The results state that financing the payment of salary and wages (SW) by the encashment of trade receivables with the help of factoring has positive impact (2.173651) on the sustainability of the firms measured in sustainable growth rate (SGR) but it is not statistically significant (p = 0.276 > .05).

Table 8
Regression Results with SGR

Variable	Coefficient	Standard Error	t-Value	P
Constant	6.448192	28.303128	0.227826	0.820
SW	2.173651	1.992933	1.090679	0.276
R Square = 0.006; P = 0.895				

Source: Study Data (2020)

Discussion of Findings

The regression results as presented in Tables 4, 5, 6, 7, and 8 reveal that the effect of financing the payment of salaries and wages (SW) is positive under the proxies of ROE and SGR but it is not statistically significant. However the impact is negative under the proxies of ROA, CR, and IGR and it is statistically significant under CR but insignificant under ROA and IGR.

The positive results reveal that the more the financing of the payment of salaries and wages (SW) by the encashment of trade receivables through factoring, the more the growth of firms in ROE and SGR. The positive rates of intercept of ROE and SGR are 0.930672 and 2.173651 respectively.

The sustainable growth of a firm depends on the plowback rate and the return on equity (Brealy & Myers, 2012). So, as ROE is positively influenced by this financing, similarly SGR is also harnessed positively. This finding is consistent with the interest of Darabos and Martha (2017) who sought further study in finding the long-term growth of firms with the help of factoring in Hungary. The positive coefficient is also supportive by the results of Fiordelisi (2011) who found positive impact on the growth of the firms in two ways: direct benefits (such as betterment of employees, borrowers, investors, etc.); and (ii) induced benefits (such as betterment of the families through consumption and savings, tax revenue for the government, increasing deposits of the firms and investing the same, etc.).

This positive effect can be explained with the help of M-M theory. This theory proposes to use that fund that may sharpen further the edge of earning power of a firms disregarding the proportion of equity and debt in the capital structure (Koh, Ang, Brigham, & Ehrhardt, 2014). In support of this theory, Sule, Amuni, Obasan, Banjo, & Hassan (2015) mention that swift, regular, and in-time payment of salaries and wages (SW) influences the continuous survival of a firm which is enhanced by the encashment of trade receivables. Quick payment of compensation is a positive image of a firm towards an employee or a worker (Muo, 2007).

The negative finding is contradictory with hypothesis 3 under CR which is also statistically significant and it is contradictory to the findings of Dekesi and Ozogbuda (2019). Dekesi and Ozogbuda (2019) found that maintaining high level of trade receivables brings lower current ratio (CR). It means that if the firms could have liquidated the trade receivables, they would not suffer from liquidity crisis. In the study, the firms take cash with the help of factoring and use the same for immediate payments such as payments for purchases (P), salary and wages (SW) and consequently they (firms) lack cash.

The negative results under ROA and IGR are supportive to the findings of Salaberrios (2016) who found that high profit making companies can afford factoring cost. Martines-Sola, Gracia-Teruel, and Martinez-Solano (2013) also found that liquidity position always does not enhance the value of a firm. They stated that liquidity after a certain level, rather, declines the value of the firm.

Summary of Hypotheses Tests

Table 9 provides the results of the tests of hypotheses. It provides the decisions (reject or fail to reject) null [H_0] hypotheses categorically.

Table 9
Results of Hypotheses Tests

Hypotheses	Statement Hypothesis	Reject H_0 / Fail to Reject H_0
H_{01}	There is *no* significant relationship between financing the payment of salary and wages (SW) by the encashment of trade receivables through factoring and long-term financial growth measured in return on assets (ROA) of the firms involved in manufacturing and/or providing goods, services and selling the same on credit in Bangladesh.	Fail to reject H_{01}
H_{02}, H_{03}, H_{04}, H_{05}	There is *no* significant relationship between financing the payment of salary and wages (SW) by the encashment of trade receivables through factoring and long-term financial growth measured in return on equity (ROE), current ratio (CR), internal growth rate (IGR), and sustainable growth rate (SGR) of the firms involved in manufacturing and/or providing goods, services and selling the same on credit in Bangladesh.	Fail to reject H_{02} Reject H_{03} Fail to reject H_4 Fail to reject H_5

Conclusion

The study examines the relationship between financing the payment of salaries and wages (SW) by the encashment of trade receivables through factoring and long-term financial growth measured in ROA, ROE, CR, IGR, and SGR of the firms involved in producing and/or providing goods, services, and selling the same on credit in Bangladesh. In other words, how the long-term financial growth calculated in ROA, ROE, CR, IGR, and SGR responds to the financing the payment of salaries and wages (SW) by the encashment of trade receivables through factoring for the firms that have been using the same financing for a long-time, particularly from 2014 to 2019. The study is explanatory in nature. The financials of 75 firms have been studied.

The study finds a positive effect of financing the payment of salaries and wages (SW) by the encashment of trade receivables through factoring on ROE and SGR. On the other hand, it has the negative effect on ROA, CR, and IGR. The negative effect on CR is statistically significant. However, the positive and negative impacts on other measures are statistically insignificant.

The study has made some *novelties*. The study has synthesized the impact to measure the effect of financing the payment of a niche and fundamental compensation (salary and wage) a business through a niche and non-traditional mode of financing, i.e., by the encashment of trade receivables through factoring. The study has used two more non-traditional proxies namely internal growth rate (IGR) and sustainable growth rate (SGR). The study considers that these two parameters are more relevant to measure the long-term financial growth of a firm (Brealy & Myers, 2000). On the other hand, the empirical study is scarce the industry. The study endeavors to contribute to the industry providing a real-life findings of the firms using this financing for a long-time.

The study has shown how preference to meeting the financial needs of paying salaries and wages (SW) for carrying out continuous business activities influence the financial decision

making in a firm. From this ground, the study has found a relationship with the underpinning theories namely Liquidity Preference Theory, Pecking Order Theory, and M-M Theory.

The study brings some *policy implications* for the decision makers at the firm level. The study finds a positive impact on ROE and SGR. Human resources are the key input for driving a firm. They play a strategic role in inculcating the growth of a firm. Their payments for compensation, bonus, benefits, overtime, training and development, safety, performance rewards, etc. can be enhanced through factoring modality of financing. The motivation of human beings in the organization influences its (organization's) prosperity (West III & Bernhardt, 2009). On the other hand, the study finds a negative effect ROA, CR, and IGR. It represents that more cash outflows through this mode brings a negative impact on the use of the assets of the firm. It also diminishes the liquidity position of the firm. Similarly, the equity position, retained earnings, amount of net income are adversely impacted. So, the business managers, owners should cautiously use the fund from this source: the conversion of trade receivables into liquidity.

The results of the study are subject to some *limitations*. This study is limited to non-financial firms. The number of firms using this financing is still limited. Finally, 75 firms were found feasible meeting the objective of the study. The firms vary abruptly in the magnitude of sales turnover, profit margin, use of financing through factoring, etc.

Most of the responding firms are unorganized in maintaining their financials. Sometimes, they provided the figures in percentage forms, such as "total financing amount of the payment of annual salary and wages through factoring 60 percent of the total factoring facility availed in the year". This type of information has led some unavoidable difficulties for analysis, such as exceeding VIF tolerance level 10.00 in one variable in testing the multicollinearity of the data. Future research may consider these limitations. In the market, the penetration of factoring is increasing. It is expected that the number of the firms using factoring will rise in the coming years. Further research may be conducted covering firms varied widely in nature of business, size of business, legal entity of business, geographical concentration, etc.

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