SOURCES OF WORKING CAPITAL FINANCE : AN EXPLORATORY STUDY ON BANGLADESHI COMPANIES

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Abstract

Cost efficient and timely sourcing of funds to support the working capital (WC) needs of a company are essential for ensuring the continuity of operations and profitability of any company. Hence, a thorough understanding about potential sources of working capital finance (WCF) is of significant importance. This research therefore, investigates the sources of working capital finance and their relative proportions in meeting WC requirements. The research also delves into identifying factors considered by the companies while choosing from alternative sources and the challenges/constraints faced by the companies in sourcing WCF. Based on descriptive and thematic analysis of the data collected from interviewing the finance managers of 21 selected (purposively) manufacturing companies, the study reveals that trade credit (or credit purchase) is the most significant source of WCF followed by short-term bank loans, collection of dues, over drafts and revolving credit respectively. The results support the pecking order hypothesis (POH) of finance in the sense that companies follow an order in choosing the sources of WCF- starting with trade finance, which is a spontaneous source of finance, followed by short-term debt. However, the results contrast the hedging principle of WCF which suggests permanent needs of WC should be financed by long-term sources like equity (internal or external) and long-term debt; only the temporary or variable needs of WC should be financed by short-term sources of fund. Among the factors influencing the choice of WCF sources, cost, availability, amount, relationship with the lender, flexibility, and speed have been found to be of high importance. The study has compared practices with the existing theories of finance and found some discrepancies (mentioned above) between the two, which intrigue further research in the area and thereby have the potential to contribute in new knowledge creation. By identifying some alternative sources coined as 'bootstrap financing' and a number of under-explored sources of WCF, the study opens up opportunities for other companies as well as financiers.

Keywords : *Working Capital Finance (WCF), Sources, Factors, Challenges*

JEL Classification : *G30*

1. INTRODUCTION

More than fifty percent of total assets of any typical manufacturing firm are current assets. For service sector organizations, the ratio is even higher. Current assets, that

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comprise of cash and cash equivalents, inventory, receivables, and prepaid expenses etc., are referred to as working capital (WC) or gross working capital (Van Horne and Wacowitcz, 2006). The required working capital, irrespective of its composition and forms, must be financed internally or externally by short or long-term funding. These funding activities are called working capital finance (WCF). This study focuses on the sources of WCF.

Cost efficient and timely sourcing of funds to support the WC needs of a company are essential for ensuring the continuity of operations and profitability of any company (Robichek, Teichroew, & Jones, 1965). One of the major reasons of corporate failure is inadequate WC which is often coined as liquidity problem or trade credit propagation by different authors (Riggins, 2019; Jacobson & Von Schedvin, 2015; Mbat & Eyo, 2013). A study by Baños-Caballero, García-Teruel, and Martínez-Solano (2016) on the WC financing strategies indicate that an appropriately chosen financing strategy can help firms improve their performance and the relationship between WC financing and firm performance becomes more significant at times of financial crisis. However, researchers to date have focused on either WC financing strategies i.e., proportion of short-term and long-term debts to meet the WC requirements (Altaf & Ahmad, 2019; Meah, Sen, & Sahabuddin, 2021; Thakur & Muktadir, 2017 and others) or did detailed analysis of a particular source of WC finance such as trade credit, factoring receivables, short-term credits from banks, inventory backed credits, etc. (Baresa, Bogdan, & Ivanovic, 2017; Bărbuţă-Mişu, 2013; Mubashar, Chughtai, & Raheman 2018 and others). Hence, a thorough understanding about the potential sources of WCF is of significant importance in order to support cost effective business operation. This research therefore, focuses on the sources of WCF. The objective of this exploratory study is to identify the sources of working capital finance, their relative proportions in meeting WC requirements, factors considered by the companies while choosing from alternative sources, and the challenges/constraints faced by the companies in sourcing WCF.

2. LITERATURE REVIEW

Working capital management (WCM) has been a widely researched topic. Some of the researches e.g., Chowdhury and Amin (2007); Mathuva (2010); and Bhattacharya (2014) had investigated the overall WCM practices in a particular economy and/or industry sectors. Whereas, others, for instance, Petersen and Rajan (1997) focused on the practices in short-term credit and payables management which are parts of WCF, Michalski (2009, 2012) deliberated on particular components of WC, namely inventory and receivables management. Opler et al. (1999) elaborated on cash and marketable securities management. Boisjoly, Conine, and McDonald IV (2020) conducted a longitudinal review of WC ratios e.g., accounts receivable turnover, inventory turnover, days payables outstanding, and cash conversion cycle over the period of 1990 to 2017 to investigate the impact of continuous improvement programs and aggressive working capital practices on WCM efficiencies. The observed significant shifts in the mean values and skewness of the WC ratios were due to stricter financial management and lower risk-taking tendency in trade credit.

The results were found to be strongest in the transportation and communications industry and weakest in the financial services sector.

On the other hand, researchers such as Chaurasiya (2023); Herison et al. (2022); Mandipa and Sibindi (2022); Bhatia and Srivastava (2016); Padachi and Howorth (2014); Raheman and Nasr (2007), and many others had investigated the role of WCM on firm profitability. Yasmin and Mohiuddin (2021) and Yasmin (2020) proposed a composite measure of sophistication in WCM and asserted that sophistication in working capital management has significant influence on firm competitiveness. Other studies by Tripathi and Ahmed (2017) and Simon, Sawandi, and Abdul-Hamid (2017) indicated an inverted-U relationship between WCM efficiency and firm performance. Lefebvre (2022) investigated the moderating effect of firm size on the relationship between WCM and firm profitability and stated that small firms experience high opportunity costs from lost sales when their net working capital is low. Zheng, Zhou, and Iqbal (2022) researched the role of management personality traits on WCM during the COVID-19 pandemic and found that overconfidence bias entails efficient WCM through aggressive cash and inventory management while reducing dependency on debt.

A number of researchers had investigated the WCF strategies and their impact on firm performance (Altaf & Ahmad, 2019; Baños-Caballero et al., 2016). Results of these studies suggested the presence of an optimum combination of long-term and short-term source of finance that minimizes associated cost and risks and maximizes profitability. Recently, Setianto, Sipayung, and Azman-Saini (2022) examined the relationship between WCF and corporate profitability in ASEAN (Association of South East Asian Nations) region. The results indicated a non-monotonic effect of WCF on firm performance. For firms with low short-term debt (STD) to WC requirement ratio, additional STD increases firm performance; conversely, for firms with a high STD to WC requirement ratio, additional STD reduces firm performance. It implies the existence of an optimum level of STD to meet WC requirement that balances benefits and costs resulting from STD thereby positing an inverted U-shape relationship between WCF and firm profitability.

Maghfirlana and Sulaeman (2022) analyzed the factors determining WCF for micro, small, and medium enterprises (MSMEs) in Islamic Banking. Number of branches, non performing loan ratio, and return on asset of the banks had been identified as the factors influencing the amount of WCF disbursed to the MSMEs.

There are a variety of sources of WCF that any firm or business enterprise can tap into. All these sources have their own pros and cons in terms of costs, refinancing risk, interest rate risk, embedded flexibility, and other associated factors. A comprehensive review of the available sources of working capital finance, their associated costs, and risk structures is essential. But very few researchers have focused on analyzing the sources of WCF. Through key word (Working Capital Finance) search on major research databases like Google Scholar, Science Direct, and JSTOR, the researcher could identify only 13 relevant research articles.

Padachi, Howorth, and Narasimhan (2012) scrutinized the firm preferences in WCF. They highlighted that internal and informal external sources of finance are preferred over bank loans for financing WC. Kwenda and Holden (2013) analyzed the WC structure and financing pattern of the companies listed in Johannesburg Stock Exchange. They contended that trade credit (i.e., purchasing on credit) is the most prominent external source of working capital finance followed by short-term debts and accruals (e.g., salaries and wages payable, tax payable, etc.). Akbar, Jiang, and Akbar (2020) scrutinized the WCM and WCF patterns of Pakistani firms. They stated that firms with inefficient WCM policies rely more on long-term debts to finance current assets. Another study by Fadah (2015) researched on red chili farmers in Indonesia and revealed that most of these firms use a combination of internal funds and funds provided by middlemen, cooperatives, and other informal sources to finance their working capital (WC). Kontu (2012); Robichek, Teichroew, and Jones, (1965); and Andrews, Friedland, and Shapiro, (1959) analyzed the alternative sources of WCF and proposed optimization models to choose the appropriate composition of WCF under given costs, taxes, and other constraints e.g., risk, flexibility, and timeliness.

Other researchers delineated the specific sources of WCF. For example, Baresa et al. (2017) and Bărbuţă-Mişu (2013) posited factoring (selling/transferring receivable accounts at a discount to a financial institution with an option to take advance against the face amount of the receivables) as an important alternative source of WCF. Based on an analysis of data from the manufacturing companies listed in Pakistan Stock Exchange, Mubashar, Chughtai, and Raheman (2018) mentioned that trade credit is a substitute of short-term bank credit. Devalkar and Krishnan (2019) examined the impact of WCF costs on the efficiency of trade credit and revealed that when the cost of WCF is high, organizations may overly lean on trade credit which is apparently a costless source of WCF and thereby create friction in supplier relationship. Such frictions are likely to harm firm performance in the long run.

Studies focusing on WCF practices in Bangladesh are limited. Using data from annual reports, researchers had observed the descriptive statistics of certain ratios, like current liability (CL) to current asset (CA), short-term debt (STD) to net working capital (NWC), and others, to identify the companies' working capital financing (WCF) policies. High values of the ratios indicated aggressive policy and low values implied conservative policy. Researchers such as Meah et al. (2021) and Thakur and Muktadir (2017) regressed the WCF ratios (e.g., CL to CA; STD to NWC) with the measures of profitability to investigate the influence of WCF on profitability. Hossain and Ankon (1997) examined WCF practices of Bangladesh Textile Mills Corporation (BTMC). Their analysis revealed that BTMC adopts an aggressive WCF policy and its current liabilities composed mainly of bank credit followed by accruals and trade credit. Islam and Mili (2012) studied the WC investment and WCF policies of the pharmaceutical companies in Bangladesh. They found that pharmaceutical companies, as a whole, follow aggressive WC investment (i.e., maintain a meagre level of current assets) and conservative WCF policy (i.e., cover part of the WC requirements with long-term debt or equity financing). Hence, there is no research to date that has conducted a detailed analysis of the different sources of WCF used by the companies in Bangladesh. This study intends to fill this research gap.

3. OBJECTIVES OF THE STUDY

The objective of this study is to identify the major sources of WCF used by companies in Bangladesh. The study also ranks the sources in terms of their frequency of usage, identifies the factors considered while choosing the sources of WCF, reveals the major challenges faced in getting WCF, and finds out alternative sources that the companies like to pursue in future.

4. METHODOLOGY

The population of the study comprises of all companies in Bangladesh. However, the study excludes SMEs (as per the definition by Bangladesh Bank) and considers only large matured manufacturing companies (fixed assets over Tk 300 million, annual turnover above Tk 500 million and 250 plus employees) that are doing business in Bangladesh for at least 10 years. The manufacturing sector contributes 17% of the GDP value and 90% of export earnings of which the large manufacturing companies contribute half the value added to GDP and 85% of the export earnings (Financial Express, 2021). Hence, large manufacturing companies are chosen as the subjects of the study.

In order to get comprehensive insights, the study adopts a mixed (quantitative-qualitative) approach. Data were collected using an open-ended questionnaire guided by in-depth interviews with the finance managers of the companies. Cold calling is not an effective way to get managers' appointment for in-depth interviews related to financial matters of private companies. Most of the companies consider financial issues as confidential. Without some sort of acquaintance, connections or referrals, collecting information related to financial matters is next to impossible. Hence, purposive sampling method is applied for this study. Sector-wise distribution of the sampled companies are presented in Table A1 in appendix.

Chief Financial Officer/Finance Director/the Head of Finance of the companies were approached, who nominated a mid-level manager in Finance department for the interviews. Hence, 21 mid-level managers working in the finance department of the selected 21 manufacturing companies have been interviewed for the purpose of this study. Respondents were asked to mention the sources of WCF used in their companies (a list was provided to choose from; however, they were given the option to mention more sources outside the list). They were also asked to score the sources using an 8-point scale based on those sources' relative contribution in meeting the companies' WC requirements (high score indicates high contribution). From 3 pilot interviews, it had been identified that companies usually arrange their WCF from approximately 6 to 8 different sources. That is the reason for choosing the 8-point scoring scale. Respondents were also asked to identify the factors considered in choosing the sources and the challenges they faced while sourcing WCF. Descriptive and thematic analyses of the data were done. The interview questionnaire is attached in Table A2 of appendix and was used as a guide for the interviewer. Interviewer asked questions and took notes on the questionnaire, with the respondents' consent, while they were providing elaborated answers.

5. THEORETICAL BASIS OF THE STUDY

WCF decisions involve choosing from alternative sources of finance. Following figure shows the major classes of alternative sources.

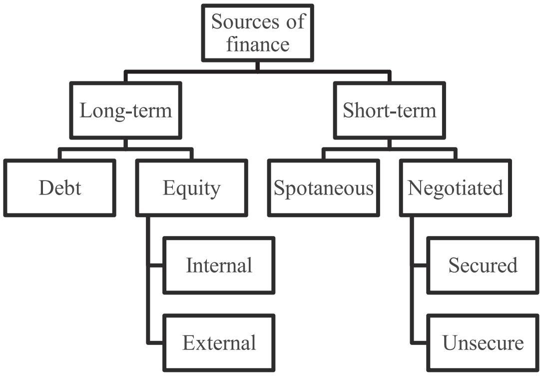

Figure 1 : Classification of the alternative sources of funds (adopted from Van Horne and Wachowicz, 2016)

When companies encounter the issue of choosing from alternative sources of financing, two theories of finance deem relevant: 1. Hedging Principle and 2. Pecking Order Hypothesis (POH). These are discussed in details.

Hedging Principle

Built on risk and cost minimization principle, hedging principle proposes that maturity of the sources of fund should match with the maturity of the assets (or the maturity cash flows from the assets). Such matching is suggested to shield firms from interest rate risk and refinancing (or availability of fund) risk at optimum cost of financing (Van Horne & Wachowicz, 2016). In the context of WCF, hedging principle advocates that firms should segregate its WC requirements as permanent and temporary. Permanent WC requirement is the minimum amount of current assets required at all times (throughout the year) to carry out the regular level of business activities. In contrast, temporary WC means the additional current assets required at different times of the operating year to support seasonal sales. Firms adopting hedging principle finance permanent WC requirements with long-term sources of fund and temporary WC needs with short-term sources of fund.

Pecking Order Hypothesis (POH)

As shown in Figure 1, there are alternatives within long-term as well as short-term sources of funds. Entailed from the basic principle of value maximization through cost and risk optimization, POH suggests that businesses follow a hierarchy of financing sources. Internal financing i.e., internally generated fund, is preferred when available. In case external financing is required (upon exhaustion of internal funds), debt is preferred over equity (Myers, 1984). Firms tap into external equity financing only when debt is no more a viable source of fund (in terms of cost and availability). With regard to WCF, non-negotiated sources or spontaneous sources can be treated as internal sources of fund as no/minimal persuasion is needed to access these funds and there are no processing/approval time, lag, or issue cost (Padachi et al., 2012).

6. FINDINGS AND ANALYSIS

In general, sources of WCF can be classified into two categories: a) Spontaneous source and b) Negotiated source (Van Horne & Wachowicz, 2016). Data collected from the study reveal that companies in Bangladesh tap into some informal sources besides the typical spontaneous and negotiated sources for WCF.

6.1 Spontaneous Sources

Financing that arises automatically from regular transactions are called spontaneous sources of financing (Van Horne & Wachowicz, 2016), such as trade credit and accruals. Trade credit is the phenomenon where buyers are not required to pay for goods or services right away; rather the suppliers allow a deferment period before the payment becomes due (Van Horne & Wachowicz, 2016). Terms of payment are mentioned in the invoice. Also, there may be a regular arrangement with the supplier to pay after certain days from the date of delivery. Accruals or accrued expense are expenses that are already incurred but not paid yet. Payable wages, salaries, taxes, dividends, and interests are examples of accrued expenses. From the interviews, it is found that 95% of the respondents declared trade credit and 52% of them stated accrued expenses as the sources of spontaneous financing. A good portion of respondents (48%) considered collection of receivables and a few (10%) presumed unearned revenue as sources of spontaneous financing (Table 1).

Table 1 : Sources of Spontaneous Financing

Spontaneous Sources	Frequency	Percentage
Credit purchase / trade credit	20	95%
Accrued expenses	11	52%
Unearned revenue	2	10%
Collection of receivables	10	48%

According to WC literature, accounts receivables or simply receivables are current assets created through credit sales of goods or services. Like other current assets, receivables should be financed by some sources of fund (Van Horne & Wachowicz, 2016). However, the results of the study reveal that practitioners view collection of receivables as a source of WC financing. Unearned revenues are the advances received from customers to deliver product or services on a later date, hence are recorded as current liabilities in accounting books. But, its mention in WCF literature is scarce.

6.2 Negotiated Sources

Negotiated sources are those for which companies need to formally approach external investors to seek funds. The financing is approved and disbursed only after satisfactory presentation of information and documents sought by the prospective investors. The terms of financing are agreed by the parties involved and stated in a contractual document. There are three major categories of negotiated sources of financing- a) money market credit, b) unsecured loan, and c) secured loan (Van Horne & Wachowicz, 2016).

Table 2 presents the negotiated sources of financing and the percentage of the respondent companies using these sources to finance WC requirements. Data reveal that short-term loans from bank is the most common source of negotiated financing. None of the responding companies affirmed about using certain money market credit such as commercial paper and banker's acceptance. However, the percentages of responding companies who agreed using letter of credit and bank guarantee are 19% and 5% respectively. About 76% of the sampled companies stated that they use short-term bank loans. However, they did not mention whether these loans are secured or unsecured. Around 43% of the companies used secured short-term bank loans. Assets used to secure short-term loans include certificate of deposits (19%), inventory (14%), accounts receivables (9%), and other fixed assets. Other widely used negotiated sources are over draft (67%), revolving credit agreement (38%), and line of credit (24%). Small proportions of the companies claim to use long-term loan from banks (14%) to finance their WC requirements. All long-term loans from banks are found to be secured. According to the hedging approach of WCF, companies use long-term sources to finance at least a portion of the permanent WC requirement (Gitman, 2000; Van Horne & Wachowiecz, 2016). That means, most of the companies do not comply with the hedging principle.

Table 2 : Negotiated Sources of Financing

Negotiated Sources	Frequency	Percentage
Short-term loan from bank	16	76%
Over draft	14	67%
Secured ST bank loan	9	43%
Revolving credit agreement	8	38%
Line of credit	5	24%
Letter of credit	4	19%
Long-term loan bank	3	14%
Loan from PF fund	1	5%
Bank guarantee	1	5%

6.3 Factoring Receivables

Factoring receivables is found to be a great source of WCF. By doing it, companies actually sell their receivable accounts before due date to a factor, which is usually a bank or financial institution. Therefore, through factoring, companies can transfer the risks of non-collection or bad debt to the factor and also outsource all of their receivable management activities to the factor. The factor, in return, charge a factoring fee. Factors often pay advance (before due date of the receivables) and charge interest on the advanced amount. However, the interest rate is usually much less than that of other unsecured short-term debts (Van Horne & Wachowicz, 2016). The interest depends on the quality, size, and average due date of the underlying receivables. About one third (33%) of the respondent companies affirmed that they use receivable factoring for WCF.

Apart from the above, other sources of WCF such as Export cash credit (ECC), local documentary bill purchased (LDBP), foreign documentary bill purchased (FDBP), loan against trust receipt (LATR), forfaiting, and cash credit hypothecation have been mentioned by a small proportion (5%, 10%, 14%, 5%, 10%, and 14% respectively) of the companies. Firms from textile, pharmaceuticals, cement, and food and allied sectors, who import raw materials and export goods, asserted to get WCF from these sources. All of these, except cash credit hypothecation, are different forms of trade financing for companies engaged in international trade (export-import business). Banks and financial institutions provide specific definition of these funded trade credits to inform customers about their offerings. Definitions downloaded from the website of Mercantile Bank Limited Bangladesh are provided below-

"ECC is essentially a short-term credit and allowed to supplement the requirement of finance of an exporter to meet genuine costs and expenses related to the exportable commodity. It must be adjusted from proceeds of the relevant exports." ………………………"LDBP facility is provided to purchase/negotiate documents/ bills (duly accepted by the issuing Bank) submitted by the exporter/supplier on (deemed) export/supply made to local export oriented industries against inland L/C (supported by export L/C or export sales contract) usually denominated in Foreign Currency". ………………………"FDBP facility is provided to negotiate (purchase) Foreign Documentary bills/documents submitted by the exporter on export made against export L/C denominated in Foreign Currency." ……..……… "LATR is allowed for retirement of shipping documents. This financing is allowed against import of trading items/ industrial raw materials. In no cases, LATR will be allowed against import of capital machinery and other fixed assets for non-trading purpose. The facility is allowed on trust with the arrangement that sale proceeds (of the goods) will be deposited to liquidate the loan account within the stipulated time." (Mercantile Bank Limited Bangladesh [MBLB], 2023).

Forfaiting is another method of trade finance that allows exporters to obtain cash by selling their medium- and long-term foreign accounts receivable at a discount to a forfaiter, a specialized finance firm, or a department in a bank. (International Trade Administration, 2023).

Cash Credit Hypothecation (CCH) is a continuous credit limit allowed for trading as well as manufacturing/assembling/other value adding units to procure and maintain the stock in trade for trading units and stock of raw material (RM), work in process (WIP), and finished goods (FG) for manufacturing/assembling/other value adding units (MBLB, 2023).

6.4 Informal/Alternative Sources

Apart from the above-mentioned sources, the companies also tap into a number of informal or alternate or unconventional sources of WCF. As presented in Table 3, liquidation of cash equivalent securities is the most prevalent (29%) alternative source of WCF. Loan from parent company (10%) and emergency capital (equity) support from the parent company (5%) are the two most cited informal/alternative source of WCF. Other informal/alternative sources include factoring receivables of the sister concerns (5%) and distributor financing (5%).

Table 3 : Informal/Alternative Sources of WCF

Informal/Alternate Sources	Frequency	Percentage
Loan from parent company	2	10%
Factoring receivables of sister concerns	1	5%
Distributor financing	1	5%
Emergency capital support from the parent company	1	5%
Liquidation of cash equivalent securities	6	29%

Padachi et al. (2012) commended that small firms often tap into unconventional and informal sources of financing. Referring to Freear, Sohlt, and Wetzel (1995), they defined bootstrap financing as any creative way of acquisition and use of resources that shunt traditional borrowing. Liquidation of savings and/or other unused assets, leasing, and getting funds through informal social and/or organizational networks are the examples of bootstrap financing (Freear et al., 1995). Having said that, all the informal/alternative sources, presented in Table 3, can be considered as bootstrap financing. Although, Padachi et al. (2012) claimed that small firms usually tap into bootstrap financing; this study reveals that even larger organizations may use it, specially in economies where traditional cost of borrowing is high and access to money and capital market is limited.

However, Global Supply Chain Finance Forum (GSCFF) defines distributor financing as follows: “Distributor Finance is the provision of financing for a distributor of a large manufacturer to cover the holding of goods for re-sale and to bridge the liquidity gap until the receipt of funds from receivables following the sale of goods to a retailer or end-customer.” (Global Supply Chain Finance Forum [GSCFF], 2023). This is a lee way for distributors who have limited access to other sources of funding and/or there is large gap between the credit terms of the manufacturer and those of the distributor. Through this process, credit risk may be lowered due to the manufacturers’ control over the distributors and thereby, cost of debt will be lowered.

6.5 Aspired Sources of WCF

The respondents mentioned some sources of WCF that they are not currently using. However, they know or heard about those and they acknowledge the benefits of using those sources. Table 4 presents such sources and the percentage of companies aspiring to use those sources.

Table 4 : Aspired Sources of WCF

Aspired Sources	Frequency	Percentage
Commercial paper	9	43%
International WCF	2	10%
Factoring	9	43%
Commodity hedging	1	5%
Foreign loan	1	5%

It is evident from Table 4 that commercial paper and factoring are the most aspired sources of WCF as 43% of the respondent companies would like to get WCF from these sources. None of the companies currently use commercial paper, but 33% of them currently use receivables factoring (presented in sub-section 5.3). Perhaps some of these companies like to get more financing through factoring or they are looking for other variants of factoring such as inventory factoring, factoring on foreign receivables, and others. Next aspired source is international funding; 10% of the companies expressed their desire to use this source. When asked to explain the international WCF, respondents opined that they would like to get foreign currency funding from or through their overseas buyers to support production and delivery of goods. They also like to explore possibilities of getting finance through their foreign suppliers' banks. They believe these opportunities will cut the cost of funding as well as reduce the exchange rate risk. These aspiring sources are actually some forms/variations of export cash credit (ECC), local documentary bill purchased (LDBP), foreign documentary bill purchased (FDBP), loan against trust receipt (LATR), and forfaiting that are discussed before. However, further advancement in this respect is possible through negotiation with trading partners and corresponding banks in the trading partners' countries.

6.6 Rank of the WCF Sources

The interviewees have scored the sources of WCF used in their companies. Table 5 presents the proportion of companies providing different scores to the sources of WCF. These proportions are used as weights to calculate the weighted score of the sources. These sources are then ranked based on the weighted score (reflected in Table 5). While scoring the sources, none of the respondents specifically differentiated between secured and unsecured short-term bank loan. Hence short-term bank loan is presented as a single category in this table. The same happened for revolving credit and line of credit; the respondents scored them equally.

Table 5 : Ranking of the Sources of WCF

	Score	8	7	6	5	4	3	2	1	Weighted Score	Rank
Negotiated sources	Short-term loan	10%	10%	19%	38%	24%	0%	0%	0%	5.43	3
	Revolving credit	5%	5%	5%	10%	10%	10%	0%	0%	2.14	7
	Over Draft	5%	14%	19%	19%	5%	0%	0%	0%	3.67	6
	Factoring receivables	0%	0%	0%	5%	10%	5%	5%	0%	0.86	10
	Letter of Credit	10%	10%	5%	0%	0%	0%	0%	5%	1.76	8
Spontaneous sources	Credit purchase (import)	48%	24%	14%	5%	0%	0%	0%	0%	6.57	1
	Credit purchase (local)	38%	14%	0%	0%	0%	0%	0%	0%	4.05	4
	Deferred payment (accruals)	19%	24%	43%	0%	0%	0%	0%	0%	5.76	2
	Collection of dues	48%	0%	0%	0%	0%	0%	0%	0%	3.81	5
	Unearned revenue	0%	5%	0%	5%	0%	0%	0%	0%	0.57	11
	Tax and dividend payable	0%	0%	5%	0%	0%	0%	0%	0%	0.29	12
Informal sources		0%	10%	0%	5%	0%	0%	0%	0%	0.90	9

Among all the sources, credit purchases (import) got the highest weighted score, hence ranked at the top. Deferred payment/accruals ranked second. It indicates that on average, spontaneous sources cover a significant portion of WC requirement. Although credit purchase (local) is a spontaneous source of finance, it ranks the 4th. This may mean lower volume of purchase from local suppliers or perhaps local suppliers do not offer favorable credit terms. Short-term loans from banks ranks 3rd out of the 12 different categories of sources. Short-term loans' ranking below accruals contrast with the results of Kwenda and Holden (2013)'s study on small and medium firms. Perhaps due to the small size of operation, the amount of accruals was lower in the sampled firms of Kwenda and Holden (2013), which is not the case for the large manufacturing firms sampled for this study. Collection of receivables is ranked 5 followed by over draft and revolving credit respectively. Among the top

6 sources, 4 are spontaneous sources, hence dominating the WCF sources. Among the negotiated sources, short-term bank loans top, followed by over draft (OD) and revolving credit. The contributions of letter of credit (rank 8), informal sources (rank 9), factoring receivables (rank 10), unearned revenue (rank 11), and tax and dividend payable (rank 12) are very low.

6.7 Factors Considered while Choosing the Sources of WCF

Table 6 presents the factors considered while choosing the sources of WCF. In total, 13 factors have been identified from the interviews. Interviewees were asked to score these factors using a 13-point scale based on the relative importance of these factors from their perspective. The scores were then weighted as per the percentage of responses in favor of that score. Weighted average scores were then calculated upon which, the factors were ranked.

It is apparent from Table 6 that cost of fund is the most important factor. Companies always try to exploit the least costly source of fund. However, factors 'timely availability' (rank 2) and 'desired amount' (rank 3) are also very important. Relationship with the lender (rank 4) often plays a positive role in the availability, cost, amount, and speed (rank 6), hence it is another factor of high significance in choosing the source of fund. Also, flexibility (rank 5), in terms of funding, is a substantial factor as it allows the firms to revise the terms and amount of funding as per their changing needs without incurring any additional cost. Letter of credit and revolving credit agreements are good examples of flexible sources of fund. Floating interest rate and embedded options with credit, like callability and convertibility, provide flexibility in the funding (Gitman, 2000; Van Horne & Wachowiecz, 2016). Size of the business (rank 7) determines the choice set available. For example, small businesses are unlikely to get funding by issuing money market securities (Gitman, 2000). Based on the regularity of the need (rank 8), firms choose between short- and long-term financing. Regular needs are usually met thorough long-term sources of finance e.g., term loan, bond, and equity. Other factors influencing the WCF decision are liquidity of the company (rank 9), amount of assets collaterized (rank 10), risk sharing opportunity (rank 11), refinancing risk (rank 12), and the covenants or restrictions (rank 13) imposed by the existing and potential lenders. The factors ranked 9 through 13 do not have much impact on current borrowing but affect the availability and cost of fund of any further credit (Jun & Jen, 2003). The results thus indicate that the respondent companies are kind of short-term focused. They care more about the current cost of fund, timely availability of the right amount of fund, and flexibility than they are concerned about the prospects of further financing.

Table 6 : Factors Considered while Choosing the Sources of WCF

Score	13	12	11	10	9	8	7	6	5	4	3	2	1	Weighted Score	Rank
Cost	67%	10%	0%	5%	5%	0%	0%	0%	0%	5%	0%	0%	0%	10.90	1
Availability	5%	33%	19%	5%	10%	10%	0%	0%	0%	0%	0%	0%	5%	8.86	2
Amount	5%	10%	14%	38%	10%	5%	5%	0%	0%	0%	0%	0%	0%	8.71	3
Relationship with lender	5%	5%	14%	29%	5%	10%	10%	5%	0%	10%	0%	0%	0%	8.14	4
Flexibility	5%	5%	14%	5%	10%	5%	10%	14%	5%	0%	5%	0%	0%	6.38	5
Speed	0%	14%	5%	0%	10%	14%	10%	5%	5%	5%	0%	0%	0%	5.62	6
Size of the business	5%	5%	5%	0%	10%	10%	5%	14%	0%	0%	14%	0%	0%	4.95	7
Regularity of the need	0%	0%	10%	5%	14%	10%	5%	10%	0%	0%	0%	5%	0%	4.57	8
Liquidity	0%	10%	5%	5%	5%	0%	5%	5%	10%	10%	5%	0%	0%	4.19	9
Assets collaterized	0%	0%	5%	0%	0%	0%	14%	14%	14%	5%	0%	0%	0%	3.29	10
Risk sharing	0%	5%	0%	0%	10%	0%	5%	5%	0%	10%	10%	5%	0%	2.81	11
Refinancing risk	5%	5%	0%	5%	0%	0%	0%	5%	0%	0%	5%	10%	0%	2.29	12
Covenants	0%	0%	0%	0%	0%	0%	0%	5%	19%	10%	0%	0%	0%	1.62	13

6.8 Challenges/Constraints faced in Sourcing WCF

Interviewees were asked to describe the challenges or constraints their companies face while sourcing WCF. The responses can be classified into three groups- i) Internal constraints, ii) Constraints imposed by the financier or lender, and iii) System-induced challenges and/or macro level barriers.

i) Internal constraints

Internal constraints arise from some restrictive policies imposed by the parent company. In many cases, the parent organization put cap on the amount of external financing, or provide restrictive list of approved financial institutions to seek funds from. For example, the respondent manager from a multinational manufacturer of consumer goods stated the following:

“The mother company does not allow us to take factor financing from local private banks. We are bound to purchase materials from listed suppliers whose credit terms are very stringent (i.e., do not offer adequate supplier credit).”

Other internal restrictions arise from inherent volatility in sales and/or supply chain, inaccurate forecast of WC requirement, overly lenient credit sales in fear of shrinking market share, and high dependency on deferred payment which may sour employee and supplier relationship. In this regard, following response from a finance manager at a pharmaceutical manufacturing company may be of interest:

"At times of sudden outbreak of diseases, we face tremendous pressure from sales to produce additional medicine but face huge difficulty in financing immediate purchase of raw materials."

Another respondent from a Food & Allied company stated the following:

"Over the last couple of years, we chronically delayed payment to some of our packaging material suppliers due to liquidity issues that we were going through. Now, these suppliers are reluctant to provide any trade credit, we can only purchase from them by paying cash in advance which is a further pressure on our liquidity."

Firms' liquidity issues and inability to prepare and present appropriate and authentic documents required by the financiers/bankers are other internal constraints on the way of acquiring WCF, as cited by the respondents.

ii) Constraints Imposed by the Financier or Lender

High cost of fund, limited over draft opportunity, covenants, and lack of uniformity or standardization regarding the documents required by the financial institutions in order to approve and release fund are the financier-induced constraints.

iii) System-induced Challenges and/or Macro Level Barriers

Fund unavailability and liquidity problems of the banks, bureaucratic inertia, regulatory restrictions, and overall regulatory complexities are cited by the interviewees as major system-induced challenges in obtaining WCF. They also mentioned frequent changes in interest rate and central bank's guidelines to the financial institutions as challenging because such changes affect not only their cost of funding but also the amount of accessible fund.

7. DISCUSSION

This empirical study has outlined the major sources of WCF used by companies in Bangladesh. In line with other works such as Kwenda and Holden (2013) and Padachi et al. (2012), this study reveals that trade credit (or credit purchase) is the most significant source of WCF. The respondent firms' reliance on spontaneous sources of financing over negotiated sources supports the pecking order hypothesis (POH) in the sense that companies follow an order in choosing the sources of WCF- starting with trade finance, which is a spontaneous source of finance, followed by other sources of short-term debt. In terms of negotiated sources of financing, the study unearths that majority firms do not consider long-term debt for WCF; such practice of the firms is in contrast to the hedging principle of financing. Any typical company has some permanent need of working capital and some temporary or seasonal need of working capital. Hedging principle suggests to finance the permanent need with long-term sources of fund (Van Horne & Wachowiecz, 2016). However, it seems that the companies emphasize more on the benefits of short-term bank loans over long-term loans as identified by Jun and Jen (2003) and Peterson and Rajan (1994).

This research also identifies the relative importance of the factors influencing the choice of WCF sources, as practiced by the sampled companies. High priority is given to cost, availability, amount, relationship with the lender, flexibility, and speed, which justify the respondent companies' reliance on short-term debt and low prevalence of long-term debt. As mentioned earlier, the study results attest that the respondent firms either overlook the long run risks associated with their WCF practices or there is a limited opportunity of getting long-term sources of fund in the context of their operation. Revolving credit agreements or line of credit has a number of important features e.g., flexibility (rank 5), speedy (rank 6), and guaranteed access (rank 2) to the desired amount (rank 3) of fund, hence it is likely to be one of the most preferred sources of WCF. But as per the results of the study, its weighted rank is 7 out of 12. High cost and/or stringent terms of revolving credit agreement may be a reason behind such a contrasting result.

8. CONCLUSION

By analyzing the sources of WCF and their relative significance in meeting the WC requirements of the firms in Bangladesh, this research has identified some deviations from general WCF principles stated earlier which is an important academic contribution of this research. However, as the study covered all sources of WCF, it falls short in doing an in-depth analysis of the specific sources. Further studies may be done on the specific sources such as short-term debt, funded credit by the banks, international trade financing, factoring, asset-backed credits, and others in the context of Bangladesh. Exploring the potential of supply chain finance, which include distributor financing, credit secured by the retailers' balance sheet, among others, will be some promising areas of further research. Another limitation of this study is its small extent of purposive sampling. Future researchers may extend this study with scientific sample.

Future studies, may also focus on more in-depth analysis of hedging principle and POH in the context of WCF in Bangladesh or perhaps in other emerging economies where money and capital markets are still at their infancy.

The research has identified some alternative sources of WCF as well, which are not very common and coined as 'bootstrap financing'. Practitioners, as well as researchers, may dig deep into these sources to identify further potentials and/or down sides of these sources.

The aspired sources (e.g., commercial paper, international WCF, commodity hedging, factoring, and foreign loan) identified by this research call attention of policy makers and financiers (private or public) to work toward facilitating these sources. It is evident from this study that there are ample varieties of foreign trade financing which are not properly tapped by the incumbent companies. Financial institutions (FIs) should take this fact into account and work towards more effective communication of their offerings. This study also identifies revolving credit agreement as an underutilized source of WCF. For FIs, this is a loss of opportunity to earn revenue. In this context, FIs in Bangladesh should revisit their offerings as such to make revolving credit affordable to their corporate clients. This research thus contributes not only to the academic literature but also to the practice of WCF.

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APPENDIX

Table A1 : Industry Distribution of Sample Companies

Industry	Number
Chemical and Pharmaceuticals	5
Food and Allied	3
Textile	5
Cement	2
Consumer goods	3
Engineering	2
Tanneries and Leather goods	2

Table A2 : Interview Questionnaire

1. What are the different sources of working capital finance? What are their relative proportions in total working capital financing?

Sources of Working Capital Finance		**Rank in terms of relative proportions in WCG**
Long-term sources	Debt	
	Equity	
Short-term spontaneous sources	Credit purchase (import)	
	Credit purchase (local)	
	Deferred payment (accruals)	
	Unearned revenue	
	Tax and dividend payable	
	Others (mention)	
Short-term Negotiated sources	Short-term loan	
	Revolving credit	
	Over Draft	
	Factoring receivables	
	Letter of Credit	
	Others (mention)	
Short-term open market sources	Commercial paper	
	Others (mention)	
Informal sources (mention)		

2. Are there any other sources of working capital finance that you like to explore but cannot because those are not available in BD (discuss why you like them, why they are not available, what can be done to bring them in market)?

3. What are the factors considered in choosing sources of working capital finance? Please rank them in terms of priority.

Factors	**Rank in terms of priority**
Cost	
Availability	
Amount	
Relationship with lender	
Flexibility	
Speed	
Size of the business	
Regularity of the need	
Liquidity	
Assets collaterized	
Risk Sharing	
Refinancing risk	
Convenants	
Others (mention)	

4. What are the major challenges in financing working capital? Please elaborate with examples.