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Barriers to the Use of Factoring Accounts Receivables: The Ghanaian Contractor's Perception

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***Abstract*—**Factoring accounts receivable is widely accepted as an alternative financing source and utilized in almost every industry that sells business-to-business or business-to-government. However, its patronage in the construction industry is very limited as some barriers hinder its application in the construction industry. This study aims at assessing the barriers to the use of factoring accounts receivables in the Ghanaian construction industry. The study adopted the sequential exploratory research method where structured and unstructured questionnaires were conveniently distributed to D1K1 and D2K2 construction firms in Ghana. Using the one-sample t-test and Kendall's Coefficient of concordance data were analyzed. The most severe challenge concluded is the high cost of factoring patronage. Other critical challenges identified were low knowledge on factoring processes, inadequate access to information on factoring, and high risks involved in factoring. Hence, it is recommended that contractors should be made aware of the prospects of factoring of accounts receivables in the construction industry. This study serves as basis for further rigorous research into factoring of accounts receivables in the industry.

***Keywords*—**Barriers, contractors, factoring accounts receivables, Ghanaian, perception.

I. Introduction

IN Ghana, Building and Road Contractors are classified according to their financial standing. The Ministry of Works and Housing classifies these contractors under four groups: D1K1, D2K2, D3K3 and D4K4. The category of a contractor determines the type of work the contractor can perform. D1K1 contractors are contractors with the capacity to execute projects that are above US$500,000.00 in value, D2K2 contractors have the capacity to execute works projects that are up to a value of US$500,000.00, D3K3 contractors have the capacity to execute projects with a maximum value of US$200,000.00 and D4K4 contractors have the resources to carry out project with maximum value of US$75,000.00. One prominent challenge faced by contractors for public sector projects is financing [18]. Contractors bear a significant capital cost, and financial options for lowering capital costs are frequently sought.

Factoring services can be viewed as a full-service financial solution for accounts receivable [6]. Based on the time scale, financing can be divided into long-term and short-term financing. [5] Indicated that, users need to consider the features and advantages of each type before deciding which to apply on their projects. Despite short-term financing are obtained quickly as compared to long-term financing it easily causes bankruptcy if the payback period becomes due without sufficient returned payment [5]. With long-term financing, interest rates are higher, constraints are more and the application process is complicated [5]. Despite the lower impact to the user and risk of bankruptcy of long-term financing, small or medium companies find it difficult to raise funds for repayment [5]. Literature reveals that, approximately, 66% of construction projects funds are generated from financial institutions like banks [21], [5]. Dependency on financial institutions may possess inherent disadvantages which may lead to more financial burden on the contractor. Hence, there is still a search for less risky alternatives for securing financial aid for the executing of construction projects. Scholars have suggested that, factoring accounts receivable is an effective means of raising short-term capital and transferring/reducing risks for construction [2].

According to [26], factoring is a financial transaction where an organization sells its accounts receivable to a factor at a discount. Now, factoring is regarded globally as a means of raising short-term capital for financial needs. There are numerous benefits in the use of factoring including the reduction and transferring of credit risks, improvement of cash flows, lowering financial administration costs and increasing efficiency and productivity [2]. Even though factoring has been successfully implemented in other industries, its assimilation in the construction industry is not effective [2] as there are numerous inherent challenges in its effective usage in the construction industry. In some developed economies such as the United States, United Kingdom among others, factoring is largely used as compare to developing countries like Ghana. However, factoring of account receivables is mostly used around the World as a vehicle to mobilize and free up cash flows for profitable growth of firms [12]. Hence, its usage can be very beneficial to firms in developing countries if the barriers that hinder its application are successfully mitigated. Therefore, this study seeks to identify the barriers to the usage of factoring accounts receivables in the Ghanaian construction industry.

II. Concept of Factoring

Factoring of account receivables is recognized globally as a growing source of external financing for all types of firms [15]. Factoring is one of the earliest forms of commercial finance. The concept of factoring accounts receivable originated from the US textile industry [22]. Notwithstanding, [23], the origin of factoring can be traced to the Roman Empire. However, the concept of factoring became more prominent in America in the 19th century. In recent times, factoring can be explicitly regarded as a completed financial service for accounts

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receivables [5]. The process of factoring involves a supplier (contractor) of the account receivable who sells them to a factor, a financial institution that provides the services of financing, credit management and collection [9]. Construction firms are likely to run into credit risks if payments due them are delayed. The use of factoring receivables can reduce this credit risk for the construction firm, because the factor can provide instant payment to clear the debt. However, the construction firm receives payment in cash at a discount from the factor, which varies by region and according to firm policies [25], [5]. There are two types of commonly used factoring methods. They include non-recourse factoring and recourse factoring. Non-recourse factoring offers the client full credit management service cover on approved debts [26]. This guard against the possibility of the factor being unable to secure full payment of factored invoices. Recourse factoring provides all types of facilities except debt protection. Under recourse factoring, the client's liability to factor is not discharged until customer pays in full. According to [26], in recourse factoring, the factor takes responsibility of the clients' debt collections, but reserves the right to pursue full restitution from the client for any bad debts [24]. The overall factoring volume reached $11.342 trillion USD in 2006, according to Factors Chain International (FCI). When compared to the volume in 2005, the growth rate is about 12% [7]. But factoring is widely used in developed countries, however, in developing countries like Ghana, there is limited data and information on factoring due to its low popularity. Reference [19] opined that, African countries are insignificant in terms of patronage of Global factoring market. In Ghana, [12] reported a total factoring industry volume in 2012 to be four million euros which represents 0.01% of GDP. They reported total advances of one million euros, 58 clients, 36 debtors and the sector employing 45 persons. Comparatively, this depicts low patronage of factoring in Ghana. Low patronage of factoring in developing countries is due to numerous barriers as shown in Table I.

TABLE I
BARRIERS TO FACTORING ACCOUNTS RECEIVABLES

Factors	References
High cost of factoring patronage	[10]; [17]
Unavailability of legal and regulatory systems	[17]
Inadequate access to information on factoring	[13]; [10]
Low knowledge on factoring processes	[19]; [13]
Inadequate infrastructure to facilitate factoring processes	[3]
Lack of judicial precedents on factoring	[19]; [13]
Costly tax imposes	[24]
Poor perception of factoring by firms	[19]

III. RESEARCH METHOD

In achieving the aim, the research adopted the sequential exploratory research method. This involved the collection of qualitative data to either confirm, add or delete variables identified through the review of literature. The qualitative data were purposively collected from six major stakeholders in factoring of accounts receivables. The sample was chosen based on their rich experience from being involved in the processes of factoring of accounts receivables. The stakeholders included three major construction firms and three major financial institutions. From the qualitative data collected, four challenges of factoring of accounts receivables were added to the ones identified from literature. They included inadequate documentation from construction firms, unrealistic timelines for receiving monies, high collateral for securing the facility and bureaucratic nature of authentication of documents. With these 12 variables a close-ended questionnaire was developed to collect quantitative data from construction firms in Ghana. For this study, only D1K1 and D2K2 construction firms were contacted. These categories of respondents are mostly involved in huge projects that require high capital investments. The respondents were asked to rate the severity of the challenges using the five-point Likert scale of 1 = lowest; 2 = low; 3 = high; 4 = higher and 5 = highest. The structured questionnaires developed were conveniently distributed to 94 construction firms through hand delivery and supplemented with online distribution. Out of the 94 questionnaires distributed, 81 were retrieved. However, upon further checks, six were deemed invalid and therefore 75 questionnaires were used for the analysis representing a response rate of 79.79%. The high sample response rate can be attributed to the use of online survey [11]. Furthermore, there were constant reminders and follow-ups. The questionnaire administration and collection lasted for a six-month period aided by three assistants. The sample size was deemed adequate as it satisfies the recommendations of many researchers that a sample of 30 for any group could be deemed representative [20].

A. Data Analysis

One-sample T-Test analysis was used to ascertain the relative severity of the variables as adopted by [1]. The mean scores, standard mean error and significance (p-values) of each variable were employed to ascertain the outcome of the survey and paint a clearer picture as shown in Table II. For each attribute, the null hypothesis was that, the attribute was not significant *(Ho:U = Uo)* and the alternative hypothesis was that the attribute was significant *(H_1:U > Uo)*. *Uo* is the population mean fixed at 3.5 and the significance level was set at 95% as used by several researchers [16], [1], [14]. The five-point Likert rating scale was adopted hence; any criterion was considered significant if it had a mean of 3.5 or more. The p-values were also used to confirm the statistical significance of each criterion. In addition, standard error was used to give an indication of how the sample represents the population [8]. Standard errors closer to zero depicts a low variability between the sample and population mean and vice versa. Lastly, the Kendall's Coefficient was computed to confirm the reliability of the five-point scales by measuring the internal consistency among the various factors. According to [4], overall agreement amongst sets of rankings can be ascertained by using Kendall's coefficient of concordance. For Kendall's W, 'no agreement' and 'complete agreement' are represented by the values 0 and +1 respectively from a range 0 to +1. The

Kendall's W values for this study was 0.397 which depicts a degree of overall agreement amongst the sets of ranking. From Table II, two variables had means below the test mean of 3.5. Hence, it is reasonable to conclude that, the first 10 factors from Table II are severe challenges that hinders the use of factoring of accounts receivables in the Ghanaian construction industry. Also, from Table II, all of the factors had a standard error mean less than 1.000 depicting that, there is little variability in the data collected and consistency in agreement among the respondents. In Table II, all the variables were significant as it recorded p-value less than 0.05. This gives a strong indication of the statistical significance of the challenges that hinders the use of factoring of accounts receivables in the Ghanaian construction industry.

TABLE II
1-TAILED TEST, SIGNIFICANCE AND KENDALL'S COEFFICIENT OF CONCORDANCE

Factors	Mean	Standard Mean Error	Rank	Sig (1-tailed)	Statistically significant
High cost of factoring patronage	4.530	0.502	1st	0.000	Yes
High risks involved in factoring	4.520	0.058	2nd	0.000	Yes
Low knowledge on factoring processes	4.510	0.058	3rd	0.000	Yes
Poor perception of factoring by firms	4.510	0.058	4th	0.000	Yes
Lack of judicial precedents on factoring	4.410	0.496	5th	0.000	Yes
Unrealistic timelines for receiving monies	4.410	0.572	6th	0.000	Yes
Inadequate access to information on factoring	4.390	0.517	7th	0.000	Yes
Costly tax imposes	4.290	0.053	8th	0.000	Yes
Inadequate documentation from construction firms	3.960	0.048	9th	0.000	Yes
Inadequate infrastructure to facilitate factoring processes	3.630	0.056	10th	0.014	Yes
Unavailability of legal and regulatory systems	3.480	0.503	11th	0.016	Yes
Bureaucratic nature of authentication of documents	3.430	0.498	12th	0.023	Yes
Kendall's W = 0.397					

IV. DISCUSSION OF RESULTS

The challenges associated with the use of factoring of accounts receivables in the Ghanaian construction industry as ranked in Table II using mean scores and level of significance are discussed as follows:

A. High Cost of Factoring Patronage

The high cost of patronizing factoring facilities deters most construction firms from considering such approach. Consequently *"high cost of factoring patronage"* was ranked as the most severe challenge with a mean of 4.530 and a corresponding significance level of 0.000, which indicates that, it is a statistically significant challenge to the use of factoring of accounts receivables. The use of factoring the impose a whole range of additional cost to a company [10]. Reference [17] indicated that, the use of factoring may attract discount charges (based on bank interest, ranging from 1.5% to 3.0% over base rate) and service fees (ranging from 0.2% to 0.5% of turnover). There may be additional costs for additional requested services, such as credit protection charges for non-recourse factoring agreement (range from 0.5% to 2% of turnover). This limits the use of factoring of accounts receivables as an alternative financing approach for construction firms. Also, in most situations, the high cost of collateral for securing the facility hinders it patronage.

B. High Risks Involved in Factoring

Risky ventures are unattractive for numerous profit-making industries like construction. Based on the interviews conducted, it was realized that, the high risk of factoring hinders its patronage. It was ranked as the second most severe challenge with a mean score of 4.520 and a significance level of 0.000. Reference [19] opined that, the factoring business is a high-risk venture due to the lack of facilitating financial infrastructure. A registration system for the assignment of receivables is a critical infrastructure required for factoring. However, [3] disclosed that, such platforms are non-existent in many African countries including Ghana.

C. Low Knowledge on Factoring Processes

Low knowledge on factoring processes was ranked as the third most severe challenge with a mean of 4.520 and a corresponding significance level of 0.000. This finding is in agreement with the assertion of [19] who indicated that, the lack of knowledge of factoring is a significant challenge its growth in sub-Saharan Africa. He explained that, numerous governments in Africa did not champion factoring as a result of limited knowledge of its prospects. Reference [13] also postulated that, there is a lack of awareness of what factoring is as there are different levels of understanding and use of terminologies in different countries. This limits the implementation of factoring as an alternative source of funding in the Ghanaian construction industry.

V. CONCLUSION

Research has shown that, factoring improves the financial competitiveness of firms by increasing their liquidity and enhancing their cash-flow patterns of businesses. Most construction companies face liquidity risk as they are mostly not able to get enough finance to execute their obligations. Furthermore, construction firms are constantly seeking ways of lowering financing costs and seeking other effective financing alternatives. Therefore, factoring of account receivables is an appropriate alternative financing approach suitable for construction firms. However, this study has shown that, there are inherent barriers that hinders the patronage of factoring financial facilities like unrealistic timelines for receiving monies, costly tax imposes and unavailability of

legal and regulatory systems. From the study, it was realized that, high cost of factoring patronage was the most severe challenge to the use of factoring in the Ghanaian construction industry. Based on the findings, it is recommended that, substantial awareness should create on the prospects of factoring of accounts receivables in the construction industry. This will create the platform for governments to develop appropriate legislation to govern its operation thereby, reducing the risk involved in the patronage of factors. This will further have a ripple effect on the cost of patronizing factors hence, encouraging more construction firms to consider factoring of accounts receivables as an alternative financing source. This study was limited to only construction firms in Ghana. However, there are other significant stakeholders that are involved in the factoring business like financial institutions. Therefore, further studies can put more emphasis on the barriers exclusive to financial institutions in Ghana.

REFERENCES

[1] Ahadzie D. K., Proverbs D. G., Olomolaiye P. O., (2007). Critical success criteria for mass house building projects in developing countries, "International Journal of Project Management", pp. 675-687.
[2] Banerjee, P. K. (2003). Global factoring business: trend and performance, Finance India, 17(4), pp. 1399–1414.
[3] Brinsley, P. (2013). Factoring legislation and regulation (PowerPoint slides). Retrieved from African Export-Import Bank and Point Forward Limited workshop in Douala, Cameroon: http://www.afreximbank.com.
[4] Chan, E. H., Qian, Q. K., and Lam, P. T. (2009). The market for green building in developed 924 Asian cities the perspectives of building designers. Energy Policy, 37(8), pp. 3061-3070.
[5] Chen J. and Chen W. (2012). Contractor costs of factoring account receivables for a construction project, "Journal of Civil Engineering and Management" Vol. 18, No.2, pp. 227-234.
[6] Chen, J.-H. (2005). Establishing the mechanism of corporate financing between financial institutions and engineering consulting firms. PCC Technical Report No. PG94050027. Taipei: Public Construction Commission., pp. 48.
[7] Factors Chain International (2006). Annual Review. Amsterdam: Factors Chain International, pp. 124.
[8] Field, A. (2005). Discovering Statistics using SPSS for Windows, London: Sage Publication.
[9] Fiordelisi, F.; Molyneux, P. (2004). Efficiency in the factoring industry, Applied Economics 36(9), pp. 947–959: http://dx.doi.org/10.1080/00036884042000233177.
[10] García-Santillán, A., Moreno-García, E., & Núñez, A. C. A. (2014). Factoring as a financial alternative to firms (Case of study of firms providing services to the Federal Electricity Commission). Journal of Applied Finance and Banking, 4, 193-207. Retrieved from http://www.scienpress.com/journal_focus.asp?Main_Id=56.
[11] Hoonakker, P. and Carayon, P., (2009). Questionnaire survey nonresponse: A comparison of postal mail and internet surveys. Intl. Journal of Human–Computer Interaction, 25(5), pp.348-373.
[12] International Factors Group (IFG). (2013). Global Industry Activity Report (GIAR) 2012. Brussels, Belgium: International Factors Group. Retrieved from http://www.ifgroup.com/wp-content/uploads/2013/07/GIAR-2012-Public-1.pdf.
[13] Kameni, E. (2014). Regulatory reforms in Africa. In M. Bickers (Ed.), World factoring yearbook 2014 (pp. 6-12). Kent, United Kingdom: BCR Publishing Ltd.
[14] Kissi, E., (2013). Empirical understanding of the status of professional project management practices in the Ghanaian building industry (Doctoral dissertation).
[15] Klapper, L. (2006). The role of factoring for financing small and medium enterprises. Journal of Banking & Finance, 30, 3111-3130.doi:10.1016/j.jbankfin.2006.05.001.
[16] Ling Y. Y. (2002). A conceptual model for the selection of architects by project managers in Singapore. "International Journal of Project Management"; Vol. 21: pp. 135–44.
[17] Milenkovic-Kerkovic T. and Dencic-Mihajlov K. (2012). Factoring in the changing environment: Legal and Financial Aspects, "International Conference: Service Sector in Terms of Changing Environrment", Vol. 44, pp. 428-435.
[18] Ofori, P. A., Twumasi-Ampofo, K., Danquah, J. A., Osei-Tutu, E., & Osei-Tutu, S. (2017). Investigating challenges in financing contractors for public sector projects in Ghana.
[19] Oramah, B. O. (2013). From the periphery to the centre - Africa as the growth market for factoring. In M. Bickers (Ed.), World factoring yearbook 2013 (pp. 6-9). Kent, United Kingdom: BCR Publishing Ltd.
[20] Ott, R.L. and Longnecker, M., (2001). Statistical methods and data analysis. Thomson Learning.
[21] Price, A. D. F.and Shawa, H. 1997. Survey of project related finance in United Arab Emirates, "Journal of Construction Engineering and Management", Vol. 123, No.3, pp. 223–232. http://dx.doi.org/10.1061/(ASCE)0733-9364(1997)123:3.
[22] Ruozi, R. and Rossignoli, B. (1985). Manuale del Factoring (Handbook of Factoring). Milan: Giuffr., pp. 149.
[23] Rutberg, S., (1994), The History of Asset Based Lending, New York: Commercial Finance Association., 1994.
[24] Sopranzetti, B. (1999). Selling accounts receivable and the underinvestment problem. The Quarterly Review of Economics and Finance, 39, 291–301.
[25] Soufani, K. (2002). The Decision to Finance Accounts Receivable: The Factoring Option. Managerial & Decision Economics, 23(1), 21-32.
[26] Vasilescu, L. G. (2010). Factoring – Financing alternative for SMEs. Proceedings of the Management of International Business and Economics Systems, Greece, 13-23. Retrieved from http://mibes.teilar.gr/,