Published in Slovak Republic
European Journal of Economic Studies
Has been issued since 2012.
ISSN: 2304-9669
E-ISSN: 2305-6282
2017, 6(1): 4-17

DOI: 10.13187/es.2017.6.4
www.ejournal2.com

Articles and Statements

Risk Management Techniques and their Application to Documentary Discrepancy in Letter of Credit Transaction

Hamed Alavi [a, *]

[a] Estonian Business School, Tallinn, Estonia

Abstract

With emergence of new economies in globalized world issue of international trade is gaining more ground in economic, political and development debates. Economic liberalization as well as removing tariff and non-tariff barriers to trade, has significantly contributed to globalization of production and flow of business. At the same time increasing trade with emerging economies and moving production to low cost countries resulted in increasing trade risk more than before. Among others, payment risk can impose serious amounts of loss on involved parties in international trade while traders try to mitigate it by using different methods of payment like documentary credits. LCs are used to reduce the payment risk of buyer with irrevocable guarantee of issuing bank to pay contractual price to seller against presentation of complying documents by him. However, application of Strict Compliance Principle and reliance of banks on mere documentary nature of presentation rather than trade realities between partners can create different problems. A prominent example of such problem is rejection of payment by bank due to bad processing and noncompliance of presented documents by beneficiary. In fact, non-compliance is a huge risk for beneficiary which can result in his significant financial loss. By focus on potential financial loss due to mismanagement of risk, current paper tries to study most prominent risk management techniques and their applicability to mitigate the risk of documentary discrepancy in LC transaction from the perspective of exporter beneficiary and find answer to the question of which Risk management model can be suitable to reduce such risk in LC operation. Research consists of three parts. First, it will review history and different business risk management philosophies. Second part will discuss to nature of LC transaction and risk of documentary discrepancy while final part will analyses different business risk management techniques and their usefulness in mitigating the risk of documentary discrepancy in international LC transaction.

Keywords: risk management, business, trade, bank.

1. Introduction

International trade is a risky process which calls for awareness of exporters to take reasonable payment measures before departing form their goods in favor of importers. For this purpose, four general payment methods are used all around the globe, namely, Prepayment, Open

* Corresponding author
E-mail addresses: Hamedalavi2000@gmail.com (H. Alavi)

Account, Documentary Collection and Documentary Letter of Credits. Economic liberation and emergence of new markets in different corners of the globe is a tempting reality for businessmen to expand their trade further by doing business with new partners from new markets. Such business activities are risky and trader might incur huge losses due to different problems in process of practicing business. Documentary Letters of Credit are used in international trade as payment method in order to hedge commercial risks which exporter and importer might face during trade with an unknown or even a known partner from high risk economy. In fact, Documentary Letter of Credit is irrevocable promise of issuing bank to pay price of exported materials to seller instead of importer who will reimburse bank within a different contract. Letters of Credit are considered to be the most popular financial instrument used in international transactions by exceeding a trillion USD per year (Klein, 2006). As a result it is not unexpected for scholars to call them as “life blood of international commerce” *(*D'*Arcy* et al., 2000). Documentary Letters of Credit are subjected to Uniform Customs and Practice for Documentary Letters of Credit as of set international rules codified by International Chamber of Commerce after First World War. UCP has been updated constantly on the basis of market demand and technology developments in international trade. Its most recent version came into effect on 1 July 2007 as UCP 600. According to UCP 600, LC transaction is subjected to two fundamental principles of independence which separates the Credit from underlying contract and strict compliance which conditions honoring the Credit by bank to compliant presentation of required documents in the credit by beneficiary[*]. On the other hand," The idea of strict compliance has developed from the general principle of the law of agency that an agent is only entitled to reimbursement from his principle if he acts in accordance with his instructions." (King , 2003). Therefore, banks who act as an agent for applicant in documentary credits will receive reimbursement in case of honouring the credit against complying documents. The standard for examination of documents has been set in Article 14 of UCP 600:

"Article 14 Standard for Examination of Documents

a. A nominated bank acting on its nomination, a confirming bank, if any, and the issuing bank must examine a presentation to determine, on the basis of the documents alone, whether or not the documents appear on their face to constitute a complying Presentation.

d. Data in a document, when read in context with the credit, the document itself and international standard banking practice, need not be identical to, but must not conflict with, data in that document, any other stipulated document or the credit.”

As a result of complexed process and interactions between bank and traders in LC transaction, there is high probability for occurrence of documentary discrepancy. Risk of financial loss and dishonoring presentation by bank will raise when there is no possibility to resolve discrepancies. Such discrepancy can be considered as a significant risk for exporter as according to ICC global rate of documentary discrepancy in LC transaction is about 60-70 % (ICC Thailand, 2002) Documentary discrepancy rate in USA is considered about 73 % while in UK it has been estimations are amounted up to 50-60 % (Mann, 2000; SITPRO Ltd, 2003); Despite the fact that costs of documentary discrepancy has not been studies globally, but SITPRO study showed “that in 2000 the UK lost £ 113 million through non-compliant documents being presented under Letters of Credit” (SITPRO Ltd, 2003).

The majority of discrepancies in practice of Documentary Letters of Credit include inconsistent data, discrepant documents of transport, mistakes in draft, drafts without signature and inconsistent invoice with credit, inadequate insurance, and documents with wrong signature (UCP 600, Articles 14(d), 19, 18(c), 28).

In reality, contrary to the principle of independence, principle of Strict Compliance is protecting interests of applicant under documentary credits process which requires shipment of promised goods by beneficiary before actualization of payment. There is an ongoing scholarly debate about what constitutes the complying presentation which can be traced into relevant legal cases (Botosh, 2000).Central point to this research is mismanagement of risk that will cause potential financial loss in operation of Documentary Letters of Credit and finding most suitable risk management model in order to mitigate it. In order to achieve its objectives, research will start with review of risk management process and continue with analyzing possible types of discrepancy as well as most sensitive areas of Documentary Credit Operation in which discrepancy might occur.

[*] Interalia Article 2; Article 7(a), Article 8(a)(c) and Article 15 ; Article 14 and Article 34 of UCP 600

Finally, different existing risk management models will be analysed in order to define the most suitable model in managing the risk of discrepancy in Letter of Credit Operation.

2. Discussion

2.1. Risk Management Review

Scholars believe that roots of the word risk goes back to Italian work *riscare* which means 'to dare'. According to Christensen to dare in South Europe of renaissance period could be: "a concept of action with uncertainty, potential benefit and possible injury or loss" (Christensen, 2006). In early 20th century, Knight recommends to separate concepts of risk and uncertainty from each other (Bergami, 2011). According to him, uncertainty will apply to the condition in which chances cannot be calculated and it is not possible to define the probability of an event. In late 20th century and early 21th century, the area of risk management has been subject of research for many scholars and interestingly, many of them attributed risk to a predictable or not predictable event with clear negative consequences (Marshall*, 2001; Koller*, 2007). Above mentioned scholars agree to refer to negative consequences of an event as Risk while positive consequences are considered as opportunity. As an outcome, risk is generally considered as a negative issue which comes from reality that "too many organisations risk is a four letter word that they try to insulate themselves from" (Merna, Al-Thani, 2005).

Consequently, scholars such as Borge, Chorafas and Sadgrove provide definition for risk based on negative aspects of risk including: "risk means being exposed to the possibility of a negative outcome" (Borge, 2001), "risk as the chance of injury, damage or loss; a hazard" (Chorafas, 2001) "risk – the possibility that a hazard will cause loss or damage" (Sadgrove, 2005) and "risk is the possibility that an event will occur and adversely affect the achievement of objectives" (Committee of Sponsoring Organisations of the Treadway Commission, 2004). Such negative bias towards meaning of risk has affected definitions of risk management provided by scholars as well. For example: "risk management is the practice of protecting an organisation from financial harm" (Blake, 2003) and, "as being concerned with identifying and managing a firm's exposure to financial risk" (Kaen, 2005). Some scholars point at opportunity in providing definition for risk management: "risk management is the application of analysis techniques and the definition of measures to quantify the amount of financial loss (or gain) an organisation is exposed to" (Gorrod, 2004) and "if you approach risk management as a discipline …you are concerned with the opportunity for gain as well as loss" (Frame, 2003).

Despite the fact that there are many credit risk evaluation methods developed for banks in order to help them in valuation of their different products, no model as such has been developed from the point of view of exporter. (Pridotkienė et al., 2006). Many of such models which are designed only to meet requirements of bank will not benefit exporter as evaluation of risks incurred by exporter as each party to the letter of credit has different interests in LC transaction. However, before, studying applicability of existing risk management techniques and their application to mitigate of risk of documentary discrepancy in LC from the perspective of exporter, it is necessary to find out major types of documentary discrepancy and their areas in LC operation in which exporter might face with such risk.

2.2. Complex Operation of Documentary Letters of Credit

Basically, the process of issuing a Letter of Credit starts with request of Buyer (applicant or Account Party) to his bank (issuing bank) in order to issue a credit in favour of the seller (Beneficiary) based on the underlying contract of sales between parties. As a result, issuing bank will contact beneficiary in his country in order to inform him about opening the credit in his favour. Due to a geographical distance between issuing bank and beneficiary, advise of the credit to beneficiary will generally takes place via a correspondent of issuing bank in beneficiaries country(advising bank). The responsibility of advising bank is only informing beneficiary about issuing credit in his favour and it does not have any obligation of payment towards beneficiary (UCP 600, Article 9.a).As a result, the legal nature of relationship between issuing bank and advising bank is considered as relationship between agent and principle[*].

[*] *Gian Singh and Co Ltd v Banque de l'Indochine* [1974] 1 WLR 1324, 1238

Beneficiary seller at this stage must compare terms and conditions of the credit with terms of underlying contract. In case of any existing discrepancy at this stage, beneficiary is entitled either to reject the credit or require amendments. After approval of the credit by beneficiary, issuing bank will enter into a contract with Beneficiary to provide him with price of merchandise in return of complying documents required in the credit. As a result, any given credit will have at least three parties. Namely, Issuing bank, Beneficiary and Applicant. However, in practice number of parties might be more than three. It might happen that issuing bank asks advising or any other bank in the country of seller to provide credit on her counter which is a very appreciated option for beneficiary who will be paid in his own country rather than the country of the buyer. In this case, the bank which provides credit on her counter is considered as Nominated Bank (UCP 600 –Article 2). In some occasions, seller might ask for higher guarantee for payment which is already provided by issuing bank. In this case a confirming bank will add her irrevocable commitment for payment of the credit to beneficiary in addition to issuing bank. After receiving approval from seller, the buyer will require issuing bank to open a credit in favour of exporter. In case of issuing bank's agreement to issue the credit, Importer (account party) will pay bank the price of goods sold to him in return of receiving confirming stipulated documents in the credit presented by beneficiary to the bank (UCP 600 – Article 7). If parties decide to advise the credit to beneficiary via bank in his own country, then the advising bank will contact the beneficiary in order to inform him about the issuing of the credit in his favour. At the time that credit requires involvement of Nominated Bank or Confirming Bank, there will be a separate contract between Beneficiary and Nominated or Confirming Bank and Issuing Bank and Nominated /Confirming Bank. Advising Bank might or might not accept to act in the capacity of Nominated and /or Confirming Bank.

As a result, beneficiary ships goods for account party and presents confirming stipulated documents in the credit to the issuing bank, Nominated Bank or Confirming Bank. Nominated Bank will check presented documents and in case of conformity, they will pay beneficiary based on the authorization in issuing bank (Längerich, 2009), transfer documents to issuing bank and wait for reimbursement (UCP 600, Article 7(C). Issuing bank also check documents and in case of their conformity will reimburse Nominated or Confirming Bank , debit the account of applicant and inform him to come and receive his documents.

As it was mentioned earlier, most of the time credit will require the involvement of Nominated Bank and Confirming Bank as Issuing bank is not located in country of Beneficiary and it is difficult for him the confirm the authenticity of signatures by issuing bank (Längerich, 2009).

Above mentioned figure can illustrate complexed process of LC operation as it has been explained before.

Among different steps in LC operation, steps 4 (advise of LC to beneficiary), 5 (shipping goods to applicant) and 6 (submitting documents to bank) have crucial role in encountering with risk of documentary discrepancy. At the stage of advising LC by advising bank to beneficiary, it is recommended that beneficiary should check all terms and conditions of LC against underlying sales contract in order to confirm their compliance.

In case of non-compliance between them, beneficiary should ask for amendment and define deadline for submission of amendment by issuing bank. Beneficiary is also recommended to check list of necessary documents to be tendered according to terms of the Credit. In case of any problems with documents, beneficiary should immediately inform applicant for corrections. While all problems with LC format have been solved, beneficiary is supposed to ship goods to applicant and tender complying documents in timely manner to bank in order to receive his payment. Preparation of documents can be a difficult job as only some of them like invoice and packing list are produced in-house and under exporter's discretion while some very important documents including transport documents, certificate of origin, independent inspection certificates and other legalized documents are issued by third parties and beneficiary has no control on accuracy and length of time taken for their preparation.

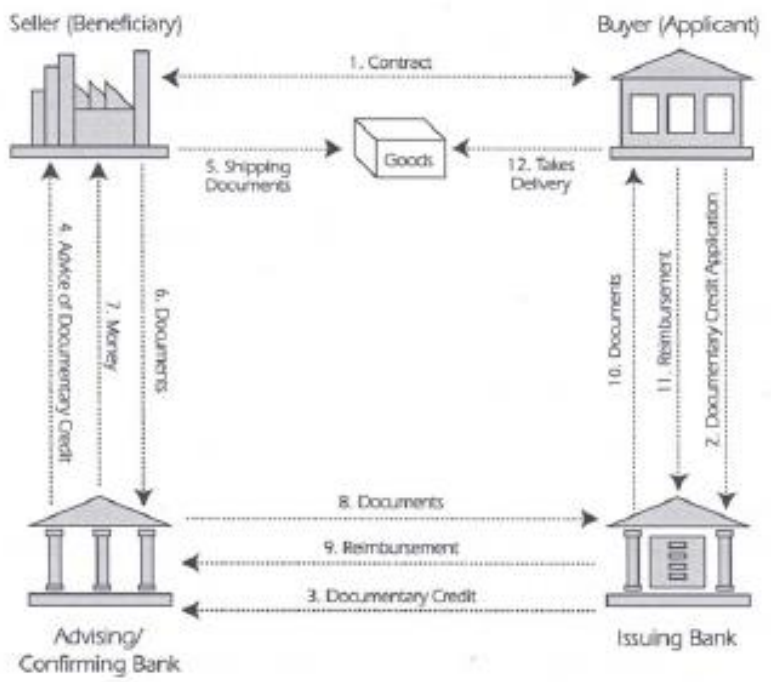

Fig. 1. Letter of Credit Flow (Wickermerante and Rowe, 1998: 1.6)

2.3. Main cases of documentary discrepancy

Baker, Jimenez, Mehta, as well as Wickermerante and Rowe are among scholars who explored major areas of documentary discrepancy in international LC operation (Baker, 2000; Jimenez 1997; Mehta, 1999; Wickremeratne & Rowe, 1998) In addition to examples which have been already analysed about possible areas of document discrepancy, findings of above mentioned researchers, provide more details on the subject matter as:

Missing the deadline for shipment of goods and documents, incomplete documentary presentation, data conflict in presented documents, wrong information on commercial invoice, using incorrect currency in insurance policy, issuing the insurance policy after shipment of goods, presenting non legalized documents, presenting documents with incorrect format, and presenting unsigned documents.

Also Mann in his study of 500 five hundreds Letters of Credit provides most in-depth inquiry into the letter of credits discrepancies. "The documents presented in the 500 transactions I examined conformed to the Letter of Credit only 27 % of the time" (Mann, 2000). Outcome of Mann's study is in accordance with findings of ICC regarding global rate of documentary discrepancies*. Despite the fact that Mann comments on waiving almost all cases of documentary discrepancy by applicant buyer, and his findings are criticized by other scholars in the field, but the Table 1 where he concludes that sources and types of documentary discrepancy in LC transaction is valuable contribution for identification of and prevention of such risk for exporter beneficiaries (Bergami, 2011).

* Discrepancy can be considered as a significant risk for exporter as according to ICC global rate of documentary discrepancy in LC transaction is about 60-70 %. Documentary discrepancy rate in USA is considered about 73 % while in UK it has been estimations are amounted up to 50–60 %. For detailed data please visit: ICC Thailand 2002, *Examination of documents waiver of discrepancies and notice under UCP500*, ICC Thailand, (viewed 15 July 2015) http://www.iccthailand.or.th/article2.asp?id=9 (visited 10 January 2017); SITPRO Ltd. 2003, *Report on the use of export letters of credit* 2001/2002, SITPRO London. 2005, Letters of credit – an introduction, SITPRO Ltd,(viewed 10, January 2017)

Table 1. Sources and types of documentary discrepancy in Letter of Credits (Mann, RJ, 2000):

Type of discrepancy	Occurrence	Percentage
Defective Documents	293	85%
Missing Documents	75	22%
Late Shipment	62	18%
Late Presentation	48	14%
Expired	36	11%
Overdraft	16	5%
Incorrect Shipment	14	4%
Partial Shipment	7	2%
Other	2	1%
Total Discrepancies	**554**	
Total Discrepant Files	**365**	
Files Not Examined	**22**	
Files Examined	**343**	

2.4. Risk Management Techniques and possibility for their application to LC operation

The notion of modern risk management is in an ongoing development from early 1960s, due to changes in global market demand and technology developments. In reference to Sadgrove (Sadgrove, 2005), Pitinanondha comments on three different eras of risk management (Pitinanondha, 2008). Referencing to Pitinanondha's work shows change in attitudes of businessmen from considering risk as an internal problem to an internal and external issue resulted in changing in risk management techniques from reactive strategies by using insurance to proactive strategies by taking preventive measures. However, as it has been mentioned earlies, scholars strongly criticize literature on Documentary Discrepancy Risk Management in Letter of Credit operation for being limited to the bank's perspective and neglecting the exporter's perspective on the issue (Pridotkienė et al., 2006). Therefore, in this section, current research will try to review different risk management models and their applicability to management of risk of documentary discrepancy in Letter of Credit Operation from the perspective of exporter.

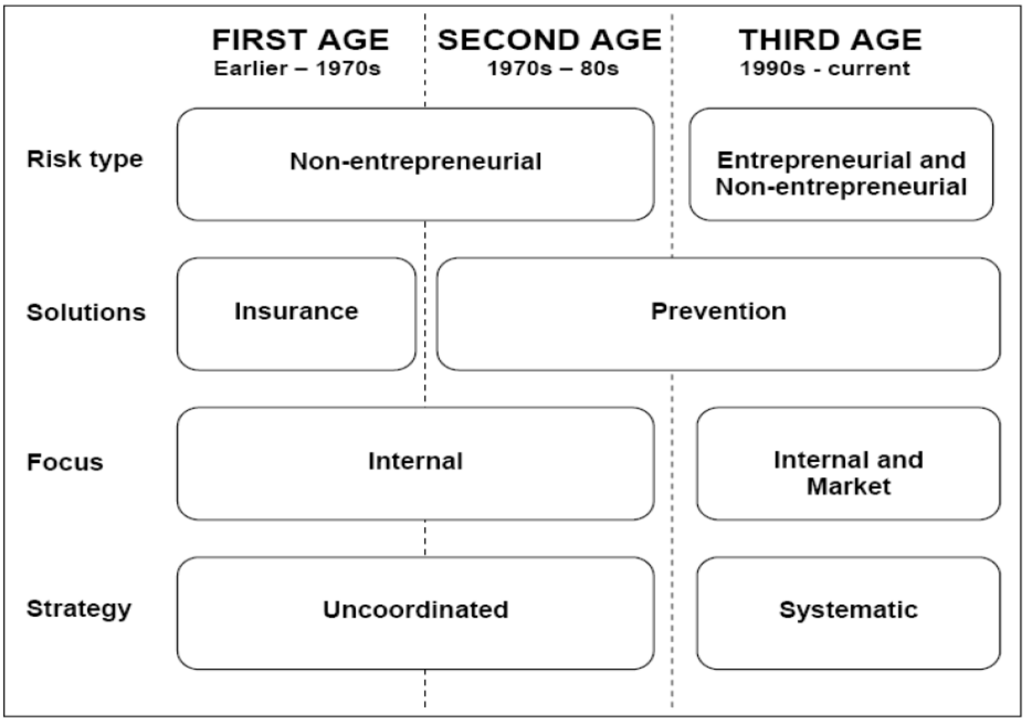

Fig. 2. Different ages of Risk Management by Pitinanondha (Pitinanondha, 2008):

4.1. COSO Framework

Failure of high profile companies during 1970's and 1980's in USA was the result behind formation of Committee of the Sponsoring Organizations of the Treadway Commission in 1985. With primary focus on causes of fraudulent financial reporting, COSO was commissioned to study enterprise wide risk management and governance problems. "Internal Control-Integrated Framework report" was the final outcome of COSO project which was published in 1992. In its final report, with focus on internal control, COSO offers a corporate governance framework at enterprise level in five main areas of controlling environment, risk assessment, controlling activities information and communication and monitoring (Committee of the Sponsoring Organisations of the Treadway Commission, 1992). However, COSO report admits that internal controls are not sufficient for bad judgments and wrong decisions. COSO framework also received other criticisms for being too much focus on financial reporting and not requiring enterprise to report their internal control process (Root, 1998; Miccolis, Shah, 2000) in conclusion in the context of Letter of Credit Operation, COSO framework is not proper measure to be in place for exporter for managing the risk of documentary discrepancy due to its general and vague nature , not providing any details on implementation method, its focus on financial reporting and excluding risk management from its internal control definitions.

4.2. Development of Enterprise Risk Management Models

In development of risk management techniques, it seems that ERM started to emerge as a concept for managing the enterprise risk in a consistent and comprehensive framework during 1990s (Dickinson, 2001). ERM takes a holistic approach to interconnections among strategic, operational, financial and hazard risks from the perspective of an organization (Scherz, Macaky, 1998).Reason behind emergence of ERM was failure of some high profile companies due to traditional approach of managing risk via "Silo Thinking" as an expression for decision making by irrelevant organizational unites and negligence towards overall effect of decisions on the organization as a whole. Below we will study approaches of some ERM techniques to risk management and their applicability to the risk of documentary discrepancy in Letter of Credit Operation.

4.2.1. Integrated Business Management System

In 1999, by following ERM principles, Statzer introduced the Integrated Business Management System (BRMS) (Scherz, Macaky, 1998). However, due to difficulties related to organizational culture and management, he recommends the organizational implementation of BRMS to be commissioned to a third party. BRMS takes a macro level approach to risk management without considering components of the model. In the context of LC transaction, BRMS model completely ignores external and internal contributing factors to the risk of documentary discrepancy which are out of exporter's control system. As a result, BRMS does not bring significant value to documentary risk management in LC operation for exporter.

Enterprise Risk Measurement

Dickinson argues about the possibility to measure the outcome of firm's strategy in terms of enterprise risk (Dickinson, 2001). For this purpose he introduces the external and internal factors which can cause failure for enterprise to achieve its intended goals. According to him, resources, activities and processes are determining elements of strategy which are subject to external (market demand, technology development, industry structure and competition) and internal (human error, fraud , payment systems and bottle neck in production process)factors (Dickinson, 2001). Despite the fact that few elements of Dickinson's model like human error and payment methods are relevant to documentary discrepancy risk in LC transaction, but model does not provide any detail on aspects of LC operation including bank and country risks. Therefore, Dickinson's model cannot be useful for exporter to reduce the probability documentary discrepancy in LC transaction.

AZ/NZS 4360 (Australia-New Zealand Risk Measurement Standard of 1995)

AZ/NZS 4360 is the first global risk management standard which was introduced by Standard Australia and Standard New Zealand jointly in 1995. The standard is a "generic framework for identification, analysis, assessment, treatment, and monitoring of risk" (Joint Standards Australia/Standards New Zealand Committee OB/7 on Risk Management, 1995). Standard directly opposes the COSO framework by considering risk management as an integral part of management process. While supporting ERM concept, Standard defines its elements of risk measurement and management as: Establishing the context, identifying the risk, analysing risks, assessment and prioritizing risks, treating risks and finally monitoring and review of the process. Unfortunately, standard elements like risk treatment have only limited application to discrepancy risk inherent to documentation process in LC operation and other risk components like country , bank and customer risks are left unattended. Therefore, it is possible to say that implementation of AZ/NZS 4360 standard will not benefit exporter regarding documentary discrepancy risk in LC operation.

Updated version of COSO Enterprise Risk Management 2004

The COSO Enterprise Risk Management Framework was introduced in September 2004 after revision and updating of the Original COSO 1992. Five components of COSO 1992 were increased to eight components in COSO 2004 as following: Assessing internal environment, objective setting, event identification, risk assessment, risk response, information and communication and monitoring (Committee of Sponsoring Organisations of the Treadway Commission, 2004a). COSO 2004 was also accompanied with an application techniques volume which was aimed to facilitate the implementation of framework (Committee of Sponsoring Organisations of the Treadway Commission 2004b). Despite the fact that some elements of COSO 2004 like key external indices might be applicable to LC transaction country economy but, it cannot be useful in terms of managing the risk of documentary discrepancy in LC operation for exporter as COSO 2004 does not have any reference to country risk or bank risk. COSO 2004 has also been criticised for not providing details, too much focus on company objectives, negligence towards allocation of roles, training systems, placing external audit in place and contingency planning (Sadgrove, 2005)

Australia-New Zealand Risk Management Standard 2004

Parallel to development of COSO 2004 in the United States, Joint Australia – New Zealand Risk Management Standard was revised which resulted in introduction of AS/NZS4360:2004 (Joint Technical Committee OB-007 Risk Management 2004, Risk management AS/NZS 4360:2004). AS/NZZ2004 has been considered by some scholars as "model of clarity. It is brief… complete and refreshingly well written" (Kloman, 2003). In order to make AS/NZS 2004 more effective than its predecessor, some changes were implemented including addition of risk identification process to risk assessment step, replacing strategic and organizational contexts with internal and external contexts in Establishing the Contexts segment and addition of Where, why and when questions to Identifying the Risk Segment. Additionally, within the Risk Analysis segment, identifying the estimating controls replaced determining existing controls, level of risk was determined rather than being estimated and finally, notion of Residual Risk was added to the Treat the Risk segment. AZ/NZS 2004 was criticized for being repetitive and consisting of too many steps (Sadgrove, 2005). AZ/NZS 2004 suggests about sharing the risk as one of the risk management measures and provides contracting and insurance as examples for risk sharing methods. However , in the context of Letter of Credit Operation , as third party organizations which are involved in the process of issuing documents like government organizations and transport companies will never accept liability to discrepancy in documents. Additionally, transport companies have their own terms and condition which in some occasions are subjected to international conventions. Therefore, it is impossible to contract out the risk of discrepancy to the third party as it is argued in AZ/NZS2004. Besides, in LC transaction, issuing banks guarantees payment to beneficiary in case he tenders complying documents. Therefore, in any condition, beneficiary is responsible for documentary discrepancy as third parties do not have any obligations towards bank. It is only one solution for reducing risk of discrepancy by using contracts which is contracting out documentation process entirely which is possible but not popular. Insurance is another suggestion of AZ/NZS2004 to reduce risk of documentary discrepancy which is possible but very costly.

In conclusion, AZ/NZS2004 provides a very general but effective risk management method at organizational level. However, taking a general approach to risk management prevents it to meet specific necessities of Letter of Credit operation and as a result its implementation for the propose of managing risk of documentary discrepancy in LC operation is not recommended.

Turnball Framework

Roberts introduced The Turnball framework in 2005 as another Risk Management Model bases on ERM which links between COSO 2004 and UK Turnball Report of 1999 (Roberts, 2005) Main principles of Turnball Framework are Risk Identification, Assessment and Response, however, framework just gives general approach to its principles by focusing on internal controls, governance and growing shareholder value without providing any details on implementation methods. Therefore, like many other risk management models which are discussed so far, Turnball Framework will not have justification to be used for managing the risk of documentary discrepancy in Letter of Credit Operation.

Other Risk Management Models

Within last two decades, on the basis of Enterprise wide risk management concept, different risk management approaches have been developed. However, many of them suffer from lack of details which reduce effectiveness of such models in practice. ERM is considered to be "systematic and disciplined approach to managing risk throughout the organisation … fundamentally a transformation process that changes the way an organisation perceives and manages risk" (Funston, 2003). Therefore, lack of detailed guidelines results in introduction of simplified methods which will create problems while being linked to decision making process (Ward, 2003). Among others, it is possible to name following risk management models which none of them has any applicability to managing the risk of documentary discrepancy in Letter of Credit Operation: integrated risk management by Association of Insurers and Risk Managers in Commerce (AIRMIC) introduced in 1999; enterprise-wide risk management by DeLoach introduced in 2000; the business risk management process by Hodgkinson introduced in 2001; enterprise-wide risk management by Mottershead and Godfrey introduced in 2001; UK Risk Management Standard, by The Institute of Risk Management, ALARM – The National Forum for Risk Management in the Public Sector and The Association of Insurance and Risk Managers introduced in 2002, and ISO 31000:2009 by The International Standard Organisation (ISO), introduced in June 2009.

The Business Risk Model (Mc Namee, 2000)

Based on the significant role of internal audit and internal auditor's position in organizational risk management and in accordance with ERM principles, McNamee introduced the Business Risk Model. In McNamee's model, risks facing an enterprise are divided into three groups of Ownership, Behavioural and Process Risks (McNamee, 2000). Despite the easy format of model it has the capability to offer a powerful tool for risk management in an organization.

Ownership Risks: According to McNamee, such risks are "associated with acquiring, maintaining, and disposing of all assets, except human assets" (McNamee, David, 2000). Since there is possibility of insuring some of these risks, it is recommended to follow the option of transferring or sharing them in the process of organizational risk management. He further divides ownership risks into four subgroups: A) External Threat: Risk elements which are out of organizational control while being capable of affecting business objectives of the organization. Examples of such risks include: financial market, customer demand, environmental forces like economic and political situation. B) Custodial Risks: Such as damages in the course of storage or transportation and obsolescence of products are risks which are relevant to owning of the product. C) Hazards: McNamee considers Hazards shared with process risks and define them as risk of loss due to human made disaster, fire or accidental loss. D) Opportunity Costs: Costs of making problematic decision on accusation and disposition of assets (McNamee, 2000). McNamee considers them shards with behavioural risks while providing examples such as: expensive procurement of an asset, disposing an asset in a not proper manner and selling an asset below the market price.

1. Behavioural Risks: Risks "associated with acquiring, maintaining and disposing of human assets" (McNamee, 2000). While McNamee divides them into two groups, he comments on high level of difficulty to manage them. A) Dysfunctional Work Place: Issues like sexual or racial harassment, sabotage, safety and health problem in work place, high level of employee stress which are also connected with process risks. B) Productivity Loss: Problems like poor leadership, lack of discipline and sub-optimal work structure which can result in poor worker commitment.

2. Process Risks: Three groups of risks which are associated with using assets in order to achieve objectives. A) Errors, Omissions and Delays: in the process of business, these risks are random differences of machine or human performance. B) Productivity Loss: Like conflicts in schedules and objectives, problematic control system and process design, wrong working regulations are connected with Dysfunctional Work Places as well as Behavioural Risks. C) Frauds: Including secret commotions, bribery and bid rigging are outcomes of intentional misrepresentation conducted by business partners (McNamee, 2000).

Some of the elements used in the Business Risk Model of McNamee have high level of relevancy to risk of documentary discrepancy in Letter of Credit Operation while some other relevant elements are missing and other elements of model do not have any relevancy to the LC transaction. For example mishandling of documents, fraud, omissions, delays and errors are quiet relevant to documentary discrepancy in LC operation while international trade risks like banking, foreign customers and sovereign risks are missing in the model. Also, Custodial risks, stock obsolescence, opportunity costs and natural hazards which are among main elements of the Business Risk Model do not seem to have any relevant to LC transaction *per se*.

Therefore, it is possible to conclude that no risk management model designed to deal with documentary discrepancy in Letter of Credit operation. However, the Business Risk Model of McNamee is the model which has been modified by Bergami in the framework of Export Letter of Credit Business Risk Model and adapted to Unified Customs and Practice for Documentary Letter of Credit in order to reduce risk of documentary discrepancy in LC operation (Bergami, 2010).

Export Letter of Credit Business Risk Management (Bergami 2010)

By adapting the Business Risk Management of McNamee 2000, Bergami tries to overcome the problem of absence of risk management model applicable to problem of Documentary Discrepancy in Letter of Credit Documentary Operation (Bergami, 2010). By keeping the same structure of the model, in practice Begami just replaces ownership risks in McNamee's framework with Environmental risks and its relevant subsections. As it is clear from Figure 3, Bergami's Export Letter of Credit Business Risk Model consists of three risk groups including Environmental Risks, Behavioural Risks and Process Risks.

1. Environmental Risks: Consist of four main sub categories of risk including country, customer, and bank risks as well as opportunity costs which are in common with behavioural risks. A noticeable fact regarding environmental risks in LC operation for exporter is existence of possibility to insure them. Therefore, showing reluctance insurance company to insure either of environmental risks in a transaction can be a good sign for exporter to come out to the deal or look for a proper risk management method.

Fig. 3. Export Letter of Credit Business Risk Model (Bergami, 2010)

1. A - Customer Risk: Choosing Letter of Credit as a method of payment in international trade is a sign for existence of some problems regarding the customer. Either customer does not have a trading history with exporter or the amount of transaction is too high for credit standing of the

customer or payment period in underlying contract is longer that exporter's expectations. Therefore, exporter requires customer to overcome such risks by providing a Letter of Credit from her bank. Inability of customer to provide the credit in accordance with terms of underlying contract and in timely manner will be a good sign for exporter either to walk away from the deal or require prepayment as the most secure method of payment.

1-B: Country Risk: Exporter is strongly advised to conduct country risk assessment in any single occasion of trade abroad as more than 90 % of losses in export trade are estimated to be result of country risk (ONDD, 2008). Different references which are useful in this respect can be OECD's Country Risk Assessment Model, World Bank's Doing Business, and reports of Transparency international. Exporter also can use some personalized models to define financial and regulatory risk in the country of destination including : Checklist approach , Delphi Technique, Quantitative Analysis, Inspection visits or combination of above mentioned techniques (Madura, 2006).

1-C: Bank's Risk: In operation of Documentary Letters of Credit, exporter generally works with issuing bank which is mostly located in applicant's country and his own bank which is considered as advising bank. By advising credit to beneficiary exporter, advising bank assumes the responsibility of authenticating credit. Otherwise, in case of advising bank's refrainment to advise the credit, exporter should start doubting about credibility of issuing bank. Beneficiary also can reduce the risk of issuing banks lack of credibility by requiring confirmation of credit by a reputable bank.

1-D: Opportunity Costs: Regarding opportunity costs, Bergami disregards similar elements in McNamee's Model like asset disposal by considering the irrelevant to LC operation. However, he comments on cost of discounting the credit as a potential risk for exporter (Bergami, 2010).

1- Behavioural Risks: Bergami considers three elements under behavioural risk which one of them is common with Environmental Risks and other is in common with Process Risks.

2.A- Dysfunctional Places: While McNamee's indicators of Dysfunctional Places like sexual and behavioural abuse or violent work place do not have direct relations with LC operation, stressful working environment has direct effect on level of documentary discrepancy in LC transaction.

2. B- Opportunity Costs: In the context of LC operation, opportunity costs might have origins either in internal documentation process of the exporter's company or in organizational processes of third party organizations involved in documentation process in the course of LC operation. Unfortunately, all costs of documentary discrepancy should be borne by exporter regardless to who is responsible for it. Therefore, exporter is recommended to prevent such costs by implementation of effective check and balance systems before submission of documents to the bank.

2. C- Productivity Loss: Exports should be aware of negative effects of employee's negligence on documentary discrepancy in LC operation. Therefore, exporter is recommended to apply sound training and audit systems to reduce risk of loss due to low productivity rate of employees which is common with Process Risk elements.

3- Process Risk: Bergami defines elements of process risk under six titles while one of them is common with Behavioural Risks while the other one is shared with Environmental Risks.

3. A: Hazards: In LC Operation, Hazards can be divided into two main groups of pre-shipment and post-shipment hazards. Pre-shipment Hazards are defined by Bergami as delays in delivery of products to carrier which results in missing the shipping deadline. Post-Shipment Hazards are damages which can happen to the cargo during the shipment or after reaching the destination when exporter is using delivery terms from Incoterms. Obtaining sufficient insurance policy is a recommended risk management method for such risks.

3. B: Errors, Omissions and Delays: Bergami relates such risks to documents of trade of trade and comments on such risk as outcome of organizational problem in exporter's company or their party issuer of documents. Errors are mistaken data used in preparation of documents. It is easy to correct them when errors are result of in-house processes of exporter's company, but when they are outcomes of third party mistakes, correction might be costly and time consuming. Omissions are missing data from documents which are easy be fixed in case documents are prepared by exporter's organization, but third party documents are generally difficult to be fixed. Delays can be due to organizational negligence of exporter in on time delivery of goods and documents or involvement of external factors like delay of vessel during lauding and shipment process. In either conditions, delay can be a serious risk for exporter (Bergami, 2011).

3.C: Fraud: Risk of fraud has been considered to be either result of false sales and shipping or misrepresentation of documents by unscrupulous exporter to the bank (Lister, Linda, M., 2007). Fraud in underlying contract or false sales and shipment will not affect the LC operation as principle of Independence separates the credit from its underlying contract. However, presentation of fraudulent documents can be a source of risk for exporter which can result in not payment of credit to him. Therefore, exporter is recommended to pay sufficient attention to authenticity of documents particularly third party documents and establish authenticity of all documents before submission of them to the bank.

3-D: Productivity Loss: In the context of the Business Risk Management Model, McNamee considers wrong working regulations and lack of control as examples of productivity loss (McNamee, 2000). However, in adapting the Business Risk Management Model to LC transaction, Brgami considers allocated resources to correction of discrepant documents as example of productivity loss. Bergami also refers to result of 2001/02 survey of SITPRO Ltd in UK which defines the cost of exporters to correct documentary discrepancies at the annual level of £113 Million (Bergami, 2011). Further, Bergami considers exporter's loss of not being paid by bank due to documentary discrepancy in the same category of productivity loss. Bergami comments on effectiveness of Letter of Credit Business Risk Management in managing risk of documentary discrepancy in LC based on the evidence from his research on Risk Management of Australian Exports to ASEAN via Documentary Letter of Credits (Bergami, 2011).

3. Conclusion

Documentary Letters of Credit are used in international trade in order to reduce the inherent risks of trade for exporters and importers. However, among other trade related risks for exporter, application of fundamental principle of Strict Compliance to LC operation which prevents effectuating of payment to beneficiary exporter in case of presenting discrepant documents to the bank as a source of risk for exporter. Since documentation process is not fully under the control or Exporter and some documents like insurance, transport and governmental documents are produced by third party organizations, exporter has no other choice rather than finding a solution to manage the risk of documentary discrepancy in LC operation in order to receive his payment on time. By studying different risk management methods and applicability of present ERM techniques to LC operation, current research tried to find an answer to the question of which risk management method can be used for the purpose of managing the risk of documentary discrepancy in LC transaction. Findings of the research supports absence of specific risk management technique among different ERM methods which can be applied to problem of documentary discrepancy in LC operation. The only exiting method is Export Letter of Credit Business Risk Model of Begami which is adopted from Business Risk Model of McNamee 2000, however, its effectiveness is need of further research.

References

Baker – *Baker B.* Exporting against Letters of Credit' available at http://www.qfinance.com/contentFiles/QF02/g1xtn5q6/12/3/exporting-against-letters-of-credit .pdf (visited 10 January 2017)

Baker, 2000 – *Baker W.* (2000). Dealing with letter of credit discrepancies. *Business Credit*, vol. 102, no. 10.

Bergami, 2011 – *Bergami R.* (2011). Risk management in Australian manufacturing exports: the case of letters of credit to ASEAN (Doctoral dissertation, Victoria University).

Bergami, 2010 – *Bergami R.* (2010). A risk management approach for export letter of credit transactions. *The Vindobona Journal of International Commercial Law and Arbitration*, vol. 14, no. 2.

Blake, 2003 – *Blake M.A.* (2003). Taking a holistic approach with enterprise risk management. *Rural Telecommunications*, vol. 22, no. 6.

Borge, 2001 – *Borge D.* (2001). The book of risk, John Wiley & Sons, Inc., New York, NY, USA.

Botosh, 2000 – *Botosh HMS* (2000). *Striking the Balance between the Consideration of Certainty and Fairness it the Law Governing Letters of Credit,* 183-271.

Chorafas, 2001 – *Chorafas DN* (2001). Managing risk in the new economy, New York Institute of Finance, Paramus, NJ, USA, p. 9.

Christensen, 2006 – *Christensen P.* (2006). Etymology of risk. *Iowa Seed & Biosafety*, vol. 22, no. 3, p. 10.

Committee of Sponsoring Organisations of the Treadway Commission, 2004a – Committee of Sponsoring Organisations of the Treadway Commission (2004a). Enterprise Risk Management – integrated framework: application techniques, American Institute of Certified Public Accountants, Durham, NC, USA.

Committee of Sponsoring Organisations of the Treadway Commission 2004b – Committee of Sponsoring Organisations of the Treadway Commission (2004b). Enterprise Risk Management – integrated framework: executive summary framework, American Institute of Certified Public Accountants, Durham, NC, USA.

Committee of the Sponsoring Organisations of the Treadway Commission, 1992 – Committee of the Sponsoring Organisations of the Treadway Commission (1992). Internal control – integrated framework, American Institute of Certified Public Accountants, Jersey City, NJ, USA. p.3.

D'Arcy, Murray& Cleave, 2000 – *D'Arcy L., Murray C. and Cleave B.* (2000). *Schmitthoff's Export Trade: The law and practice of international trade*, Sweet and Maxwell, London, UK.

Dickinson, 2001 – *Dickinson G.* (2001). Enterprise risk management: its origins and conceptual foundation, *The Geneva Papers on Risk and Insurance*, vol. 26, no. 3, pp. 363.

Frame, 2003 – *Frame JD* (2003). Managing risk in organizations: a guide for managers, Jossey-Bass, San, Francisco, CA, USA, p. 5.

Funston, 2003 – *Funston, R* (2003). Creating a risk-intelligent organisation, *Internal Auditor*, vol. 60, no. 2, p. 60.

Gian Singh and Co Ltd v Banque de l'Indochine, 1974 – Gian Singh and Co Ltd v Banque de l'Indochine (1974). 1 WLR: 1324, 1238.

Gorrod, 2004 – *Gorrod M.* (2004). Risk management systems: process, technology and trends, Palgrave Macmillan, Basingstoke, UK, p. 3.

ICC Thailand, 2002 - ICC Thailand (2002). *Examination of documents waiver of discrepancies and notice under UCP500*, ICC Thailand, (viewed 15 July 2015) http://www.iccthailand.or.th/article2.asp?id=9

Jimenez, 1997 – *Jimenez G.* (1997). ICC guide to export-import basics: the legal, financial and transport aspects of international trade, ICC Publishing, S.A., Paris, France.

Joint Standards Australia/Standards New Zealand Committee OB/7 on Risk Management, 1995 – Joint Standards Australia/Standards New Zealand Committee OB/7 on Risk Management (1995). Australian/New Zealand Standard: Risk management AS/NZS 4360: 1995, Standards Australia/Standards New Zealand, Homebush, NSW, Australia, p. 2.

Joint Technical Committee OB-007 Risk Management, 2004 – Joint Technical Committee OB-007 Risk Management (2004), Risk management AS/NZS 4360:2004, Standards Australia/Standards New Zealand, Sidney, NSW, Australia.

Kaen, 2005 – *Kaen FR* (2005). Risk management, corporate governance and the public corporation, in M Frenkel, U Hommel and M Rudolf (eds), Risk management: challenge and opportunity, Springer, Berlin, Germany, pp. 423.

King, 2003 – *King R.* (2003*)*. Gutteridge and Megrah's law of bankers' commercial credits. Routledge. p. 14.

Klein, 2006 – *Klein CH* (2006). Letter of Credit Law Developments, Jenner & Block LLP, Chicago, Il, USA.

Kloman, 2003 – *Kloman FH* (2003). Congestion versus clarity', *Risk Management Reports*, vol. 30, no. 10, p. 4.

Koller, 2007 – *Koller GR* (2007). Modern corporate management: a blueprint for positive change and effectiveness, J. Ross Publishing, Fort Lauderdale, FL, USA.

Längerich, 2009 – *Längerich, R.* (2009). Documentary credits in practice. Nordea.

Lister, 2007 – *Lister LM.* (2007). A practical approach to fraud risk, Internal Auditor, vol. 64, no. 6, pp. 61-65.

Madura, 2006 – *Madura J.* (2006). International financial management, 8 edn, Thomson South-Western, Mason, OH, USA. p. 141.

Mann, 2000 – *Mann RJ* (2000). The role of letters of credit in payment transactions, *Michigan Law Review*, vol. 98, no. 8, pp. 2494-2547.

Marshall, 2001 – *Marshall CL* (2001). Measuring and managing operational risks in financial institutions: tools, techniques and other resources, John Wiley & Sons (Asia) Pte Ltd, Singapore.

McNamee, 2000 – *McNamee D.* (2000). Targeting business risk. *Internal Auditor*, vol. 57, no. 5, pp. 46-51.

Mehr, Hedges, 1974 – *Mehr RI, Hedges BA* (1974). Risk management: concepts and applications, Richard D. Irwin, Inc., Homewood, IL, USA, p. 49.

Mehta, 1999 – Mehta R. (1999). Export letters of credit: eight steps to error-free compliance, *International Trade Forum*, vol. 99, no. 4, pp. 12-15.

Merna, Al-Thani, 2005 – *Merna T., Al-Thani FF* (2005). Corporate risk management: an organisational perspective, John Wiley & Sons Ltd., Chichester, West Sussex, UK.

Miccolis, Shah, 2000 – *Miccolis J., Shah S.* (2000). Enterprise risk management: analytical approach. Tillinghast-Towers Perrin, Stamford, CT, USA, p. 5.

ONDD, 2008 – ONDD (2008). Country Risks, Organisation for Economic Co-operation and Development 2003, Officially-supported export credits and the small exporter, <http://www.oecd.org/dataoecd/62/8/2634848.pdf>.

Pitinanondha, 2008 – *Pitinanondha T.* (2008). Operational risk management (ORM) systems - an Australian study', University of Technology Sydney.

Pridotkiene et al., 2006 – *Pridotkiene J., Snieska V., Snieskiene G.* (2006). The principles of exporter-provided trade credit risk model, *Engineering Economics*, vol. 2, no. 47, pp. 7.

Roberts, 2005 – *Roberts H.* (2005). Enterprise risk management: a long term solution for compliance, governance and sustained growth in shareholder value (White Paper), Entropy International, Lancaster, UK.

Root, 1998 – *Root SJ.* (1998). Beyond COSO: internal control to enhance corporate governance, John Wiley & Sons, Inc, New York, NY, USA, p. 122.

Sadgrove, 2005 – *Sadgrove K.* (2005). The complete guide to business risk management, 2 ed., Gower Publishing Limited, Aldershot, UK, p. 278.

Scherz, Macaky, 1998 – *Scherz MH, Macaky R.* (1998). Risky business. *Financial Executive*, vol. 14, no. 5, pp. 30-32.

SITPRO Ltd., 2003 – SITPRO Ltd. (2003). Report on the use of export letters of credit 2001/2002, SITPRO London. 2005, Letters of credit – an introduction, SITPRO Ltd, London.

Statzer, 1999 – Statzer, JH (1999), 'An integrated approach to business risk management', Professional Safety, vol. 44, no. 8, pp. 30-32.

Ward, 2003 – *Ward S.* (2003). Approaches to integrated risk management: a multi-dimensional framework, *Risk Management*, vol. 5, no. 4, p. 9.

Wickremeratne, Rowe, 1998 – *Wickremeratne L., Rowe M.* (1998). The complete guide to documentary credits, Chartered Institute of Bankers, London.