GLOBAL SUPPLY CHAINS AND RISK MANAGEMENT: A NECESSARY APPROXIMATION

Mohammed Amine Balambo  
*University Ibn Tofail Kenitra, Morocco*

Mohamed HAOUARI  
*CRETLOG -Aix -Marseille University, France*

Abstract:  
If the literature recognizes the vulnerability of International Supply Chains and the risks to which they are exposed, it is however astonishing, to note the lack of conceptual frameworks and empirical results which can provide a clear comprehension of the concept of risk and risk management in the supply chains, and in the relations between their actors (Manuj and Mentzer, 2008; Zsidisin 2003, Jüttnert et al., 2003).  
This paper aims to make the outline of a profit-sharing to the Management of the risks in The International Supply chains, while making it possible to present a state of the art of the literature on the question, while spreading out the prospects offered by such a discipline in the analysis for Global Supply Chains.

Keywords:  

Introduction:  
It is understood that the process Supply Chain Management (SCM) is currently undergoing a major expansion. Beyond the change in the rules of global competition, it operates a real upheaval in the management of organizations becoming an integrative First of intra-organizational philosophy, while offering new inter-organizational perspective (Cooper, Martha C. and Lisa M. Ellram 1993) and reticular (Paché G; Paraponaris C. 2006), ranging up to become a new paradigm of inter-actor relationships (R. Speckman; Kamauff J.; Myhr N 1998).  
However, with the globalization of Supply Chains, inter-actor relationships are characterized by a high degree of complexity. Complexity deriving its origin in the multiplicity of stakeholders, the length of the channel, contextual and cultural differences between organizational members .... Such an increase in organizational and operational complexity pushes companies to take into account new constraints that increase their vulnerability and make them more vulnerable to a multitude of risks. These risks are caused not only the external environment or the internal organization of each actor, but also the interactions between the various actors in the supply chain (Juttner et al. 2003).
However, if the literature recognizes the vulnerability of International Supply Chains and the risks they are exposed, however, it is surprising to note the lack of conceptual frameworks and empirical results that can provide a clear understanding of the concept of risk and risk management in supply chains, and relations between the players (Manuj and Mentzer, 2008; Zsidisin 2003 Jüttner et al, 2003).

To the draft of a sharing in Risk Management in Global Supply chains, allowing to present a state of the review of literature on the subject, while spreading the opportunities offered by such this paper aims to discipline in the analysis of Global Supply Chains.

1. Risks and Supply Chains in the context of Global sourcing:

Companies are in obligation to adjust to an environment increasingly tumultuous to succeed, in some cases, to survive. The establishment of firms in developing, where the conditions of production costs are more favorable country seems capital. In this context marked by the proliferation of offshoring in emerging countries that international supply chains have emerged, SC marked by a high degree of complexity, not only because they involve more partners, but also because that they are required to work on several territories.

A literature review on International Supply Chain Management (ISCM) reveals the lack of no pattern or a theoretical construct that allow analyze this phenomenon (Connolly et al, 2005), which paradoxically knows proliferation in a globalizing world.

Although challenging at national or regional level because of its inherent difficulties, the concept of SCM is to confront new challenges but also opportunities in an international context.

Apart from the increased logistical complexity, challenges such as cultural factors, language, regulatory requirements, customs, and differences in regimes’ s taxes are add to the challenges facing the International Supply Chain Management (Deloitte 2005 Handfield and Nichols Jr, 2004; Mattsson 2003).

1.1. What is Global Supply Chain? :

The demands of globalization and competitive pressures arising have imposed the deployment of new strategies based primarily on spatial fragmentation processes.

International fragmentation of production resulting in cross-border networks inter-firm and intra-firm led to the development of International Supply Chianes, you can benefit from this division.

While globalization is changing the global economic landscape, the International Supply Chain Management is the most appropriate medium for a large share of firms, even if the No business is not internationally may that there is a part of its suppliers or clients that operate across borders where it s implanted.

Despite the existence a significant part of firms a great template that works to international (Benetton, Nike, Wal-Mart, Dell ...) and theoretical developments that have accompanied (Networks, systems of information [EDI, Intranet, ERP ..]), the SCM in a global context remains an unexplored field (Connolly et al, 2005), which n no known structure or theoretical framework that the part of a wider context.

Throughout our literature review, we noted the lack of a unanimous definition of this concept, but each author defined the international supply chains according to its approaches and disciplinary affinities (Balambo, 2012; 2013).

However, commonalities exist between the different definitions (Deloitte, 2005; JR Handfield and Nichols, 2004; Mattsson, 2003), which put the focus on additives challenges facing international management Supply chains and with which we can say that the International Supply Chain Management: is a global flow management, an inclusive philosophy of the members of the international supply chain, where:
The competitive arena is bigger, not only geographically but in terms of number of customers, suppliers, and potential competitors. Complex challenges, differences in regulators, multiple legal systems, cultural differences, and the multiplicity of regimes add to these complexities.

We consider international supply chains as a form of more complex organization, which differs from supply chains domestic, regional, or continental given the challenges mentioned above, and also differ from international supply chains traditional in their degree of integration and interdependence between partners.

1.2. Risk: a multidimensional concept

That what is the risk? The word risk appears to be commonly used to refer either to either an event both in terms of probability appearance, or consequences. In the literature, we do not really find consensus language, because there are a multitude of definitions of risk. These definitions are often the object of confusion, vary depending on the domain and the context in which the risk is studied. Khan and Burnes (2007) mention that after Bernstein (1996), the word risk has its roots in the Italian word which means 'Risicare Oser'.

March and Shapira (1987) relied on the contributions of decision theory, defines risk as a change in the distribution of outcomes as possible, Their likelihoods, and Their subjective values. This definition suggests that the risk is mainly associated with the variance of the results (positive or negative), and their probabilities.

Finally, Mitchell (1995), the image Andersson and Norman (2003) proposed the following formula to estimate the risk events from the probability of loss occurrence P (lossn) d the importance (or impact) loss L (lossn): Risk n = P (lossn) * L (lossn). However, as has been shown before by the results of March and Shapira (1987), most managers refuse to take the risk, seen as a multidimensional concept, a simple quantifiable construction.

The literature on supply chain shows that the authors use the terms supply risk or supply chain risk which can be translated into logistics risk or risk of supply. Lavastre and Spallanzani (2008) suggest that the first (supply risk) is very concerned and operational supplies, deliveries, orders and very short-term operational management of flows, while the second is more strategic and transverse, and concerns management, implementation and organization of flows between partners a supply chain and its effects will affect the supply risk. After Zsidisin (2003), and there are few definitions of risk in a logistics context. Zsidisin et al (2004) suggest that Supply risk is defined as the probability of an incident associated with inbound supply from individual supplier failures or the supply market occurring, in icts All which outcomes result in the Inability of the purchasing firm to meet customer demand or because terrorism threats to customer life and safety. This definition puts emphasis on events that may occur upstream and that can cause a failure of the business to meet consumer needs or may have an impact on his life or safety.

Harland et al (2003) suggested that the supply risk is part of 11 types of risk that may affect the activity organization. These authors have adopted the definition of Meulbroek's (2000) defines supply risk as adversely affects inward flow of ANY type of resource to enable transactions to take place; 'aussi termed as input risk'. This definition, which is located in the logic of the previous (upstream), incorporates both the idea flow and limit the impact risk to inability of the business function, which prevents logically meet consumer demand.

Other authors have proposed definitions of Supply risk based on the general definition of risk proposed by March and Shapira (1987), with direct resonances of decision theory. Thus, Jüttner et al (2003) propose to define the (supply risk) as" Any Risks for the information, material and product flows from original supplier to the delivery of the final product for the end user. After these definitions, logistics risk, the picture of risk in general, appears as a multidimensional concept and as Zsidisin (2003) suggests," Supply risk is a multi-faceted concept, since its scope includes risk sources and outcomes."
After the overview of these definitions, we propose to define risk in a supply chain context as the combination of the probability and impact of an event that may affect the mastery of physical flows and/or information of an organization and/or its upstream and downstream partners in a supply chain, which can cause an inability to meet the needs of the end consumer.

1.3. Control of Supply Chains: with what risks?

- **Traditional Risks internationalization:**
  The first risks a Global Supply Chain faces are inherent in the process of internationalization of all first risk related to contextual barriers: the politico-legal environment has an undeniable influence on the fate of the whole process business the specificity of each legal system, political turbulence and its consequences, which can add risk related to financial environment, including monetary policy and exchange rate fluctuation and rate of interest. It adds to this risk related to cultural, diversity of attitudes and values and problems of understanding and collaboration that result. In a study on cultural differences in supply chains a car manufacturer and its suppliers, Aquilon (2003) finds the existence of a difference in conceptions and definitions among different cultures that led to problems in collaboration. Before this, the global supply chains appear as structures that must reconcile two completely contradictory objectives: Maintain a level of integration for good collaboration between members of the supply chain, and transcend cultural barriers resulting from differences in national cultures and business arising, develop interactions, coordination, collaboration and cooperation among individuals, teams, functions involved in the international supply chains, which means to communicate, to work together to develop interfaces shared structures, to have some compatibility or congruence, strategic, organizational, structural and cultural (Barratt, 2004).

Risks related to the geographical distance also still present, especially in terms of timeliness and responsiveness to markets. The delivery performance depends on its speed. Delivered in a shorter time than competitors strengthens competitiveness period. It also depends on its reliability refers to the strict observance of delivery times to their regularity. Any business is doomed to extinction if it ignores the time factor. This factor is made difficult in an international context, the problems of geographical distance, time differences, and perceptions over time (cultural variable), make it more difficult reactivity deliveries. Not to mention the importance of the risk of damage and terrorist risks.

Besides these many sources of risk, there are a number of challenges, including difficulties relating to obtaining safe and truthful information in the foreign market, the problems related to customs and excessive documentation, but also technological differences and differences of systems of information developed by each partner, all these problems are exacerbated in developing countries.

All these risks and challenges increase risk as preached by the new institutional economics, especially in terms of transaction costs due to the opportunistic actors ...

- **Risks steering Supply Chains:**
  At the massive outsourcing giving rise to forms of reticular organization characterized by a constant search for increasing productivity, lower cost, often with short termist logic, while having branded products and high complexity technisation the Supply Chains are often faced with the risk of rupture flow. Disruptions that may affect the flow of information, materials, or products.

Five types of risks faced by a supply chain are usually highlighted, in particular, and increase its vulnerability to know (Zsidisin et al 1999, Mason-Jones and Towill, 1998.): Demand, supply, the environment, process and control.

According to the Anglo-Saxon literature two levels of risk can be identified, the risk of an operational nature (Supply Risk) which relate to the immediate flow management in terms of...
orders, deliveries, and of supplies that were grouped by (Chopra and Sodhi, 2004) into nine categories: breakdowns, delays, systems, forecast, intellectual property, commodities, money receivable, inventory and capacity. Besides this risk category are add the tactical-strategic risks (Supply Chain Risk) that enable the management and control flows between the partners, which has a direct impact on operational risk. This great diversity of risks that organizations are exposed, will determine the attitude that they will adopt towards risk. This attitude is strongly influenced by the degree of uncertainty, positive or negative perception of risk, as well as other factors such as the sector’s activity, the behavior of individual managers, experience with previous risk (Harland et al (2003), and March Shapira (1987), Berglund (2007)). Williams et al (2006), people appear to differ in their attitudes toward risk. Individuals seem to be consistent risk-takers or risk-avoiders. The same distinction was adopted by Harland et al (2003) also suggest that organizations or individuals have the choice between accepting the risk (and choose to handle it) or on the contrary the avoid. However, and as we have presented above, the risk is inherent in all things whatever its nature. It is simply impossible in any economic environment, to avoid exposure directly or indirectly (exhibition suppliers or customers). It is suggested, joining the proposed L inhabitant Tinguely (2001) that it is possible but cannot ignore the risk of avoid. Ignore the risk does not mean denying the idea that there but otherwise is to recognize its existence and consider that it can affect the business and results of an organization, but without taking any action to manage it. In sum, the literature suggests that the risk’s cannot be avoided, it can be ignored or managed. However, and in an unstable environment and expose organizations to a multitude of risks, it is difficult to think that they can remain indifferent to them. L approach to risk management and becoming more and more like an effective way to deal with the risks faced by organizations.

2. The globalization of Supply Chains: What place for Risk Management?

2.1. Risk Management: Evolution of the concept and Definitions
The concept of risk management (or risk management) n is not new and has certainly made its appearance in the late 1950s in the United States in the financial sector, in relation to issues of insurance (Mayer N. Humbert JP, (2006), Tchankova (2002)). Subsequently, the concept of risk management has been extended to other areas, including the environment, project management, marketing, and logistics, which particularly interests us. If risk management is sometimes considered a simple fad, L head and Tinguely (2001) suggest that risk management such that it is seen today is distinctly different from that she represented there 50 years, in the sense that it has evolved from an approach that considers the risk that in internal organizations, an approach that incorporates risk in a broader and more strategic vision. This evolution d due to the increased instability and uncertainty in the environments in which organizations must operate, and for many of the business idea of a stable external environment has ceased to exist (Tchankova, 2002). This instability of the environment and volatility mean that businesses have become exposed to a multitude of totally unpredictable risks. In this context, the question about the interest of risk management does not arise. Moreover, its implementation is recommended by some reference works such as the work of the Basel 2 and the International Organization for Standardization (ISO) launched since June 2005 a procedure for implementation is the publication an ISO standard (ISO 31000, risk Management, principles and guidelines for implementation) which is being finalized and should s itself as the international framework for risk management.
Unlike the risk, there seems to be a consensus on the definition of risk management. We have chosen to present several definitions that show the convergence of conceptualizations of risk management. Khan and Burnes (2007) adopt the definition of Fone and Young (2000) that The management of risk must be considered as a function of the company that seeks to identify assess and manage risks in the context of the objectives generals the organization. This definition goes beyond the concept of risk management come a simple management tool to define such a function by whole-that must exist independently of the other functions of the organization. Harland et al (2003) suggest that Risk management should incorporate scenario planning and the use of experts and studies Delphi groups, in addition to forecasting methods based on statistical forecasting. It will depend on the attitude of the organization: an organization can take several positions towards risk: reactive, defensive, proactive and analytical. From these definitions, we can conclude that risk management n is not necessarily synonymous with ducking or risk avoidance, but that management will depend on the attitude that select the organization adopt towards risk . Indeed, if companies are inevitably lead to cope with risk, what is important is to identify, evaluate and try the right attitude to these risks. In this sense, inhabitant Tinguely (2001) suggest that Risk management is not about seeking gold Avoiding risk. It is about Optimizing risk exposures.

2.2. Models of Risk Management in Global Supply Chains

In recent years, researchers have begun to explore how risk management models, derived from other disciplines can be applied in the context of supply chain (Harland and Brenchley (2001), Harland et al (2003) and Wendel Norman (2002)). Harland et al. (2003) proposed a grid to manage risk in a logistics network consisting of 6 phases: mapping the logistics network (or supply), risk identification, risk assessment, risk control, formulation of a collaborative strategy risk management in the network and finally the implementation of this strategy. For Beckett (2005), mapping the supply chain is a pre-condition for the risk management of the supply chain to the extent that it helps to understand the structure, strategy and accountability of actors in the supply chain networks . The main limitation of this grid is that it does not take into consideration the different perceptions that network actors have different risks they are exposed Zsidisin (2003). For Stemmler (2007), the risk management process generally includes the identification of the source of risk, analysis and evaluation of the consequences of risk, action research, and finally, control risk. Another limitation that we can blame the two models (Harland et al. (2003) and Stemmler (2007), is the lack of mechanisms for monitoring and reviewing the different steps performed. In fact, risk management is an iterative, cyclical and permanent, s must ensure the accuracy of evaluations, the relevance of the priorities and decisions as well as the effectiveness of the measures implemented. Finally, Manuj and Mentzer (2008) proposed a model of a risk management in the global supply chain consisting of five phases. The model presented in the form of process consists of five iterative phases: Risk Identification, Risk Assessment, Strategy selection of appropriate risk Implementation of the risk management strategy and finally Risk Reduction Supply Chain . The interest of this model lies in the fact that he believes that the process of risk management n is a sequential process in which an element affects only the next. C is a multidirectional, iterative process in which n any element has an immediate and direct impact on others. However, the peculiarity of this model, is that it allows you to understand risk management as
a whole. This feature translates to adopt different strategies depending on the context and the risks involved. These contributions suggest that each model of risk management must be based on a logical sequence of determining the context in the presence and risks that it generates, to assess these risks and establish measures in order to reduce the importance in respect of the probability of occurrence, or the impact or both. White (1995) suggests that different models of risk management proposed in the literature tend to follow an approach consisting of three phases: Hazard Identification: Starting an appreciation of the context, its purpose is to identify all risks which are likely to occur. Risk Analysis: Its purpose is to understand and estimate the probability of occurrence and impact of the most significant risks. And finally, Risk Treatment: Its purpose is to determine the most appropriate to undertake for each risk (or combination of risks) action as well as the most appropriate party to manage each identified risk.

The interest of the establishment of such an approach goes beyond the benefits that it can bring to the supply chain (in terms of performance of the whole chain and each of its actors). Indeed, it would also be interesting to examine how risk management might affect relations between different actors in the chain, and what impact does it have on the sustainability of its relations. Thus, it would be legitimate to ask to what extent risk management could she afford to establish a common vision to different actors in the chain? And what role can it play in improving the level of trust between the two partners? And if the risk management actually allowed to improve the confidence, do not she will indirectly promote, the appearance of opportunistic behavior? Therefore you can also ask to what extent the structure of relationships in the chain can it encourage (or not) the appearance of specific types of risk. These questions serve to demonstrate the different perspectives offered by risk management in the Analysis of Global Supply Chains.

However, if this ambitious approach has some interest in the context of supply chain, its practical application is confronted with various obstacles. Manuj and Mentzer (2008) emphasize the difficulties associated with increased complexity of global supply chains. To Harland et al. (2003), another difficulty is, the identification and measurement of risk, not for a single actor, but for all players in the supply chain. The last obstacle is the cost of the procedure to the extent of its impact on the performance of each player and the entire chain.

**Conclusion:**

In this paper we have all of first tried to better understand the concepts of risk and risk management, and L object of our research is born of a fact that we have done from the literature review. Indeed, it seems clear that if the work that focuses on supply chain management in general and on global supply chains in particular, have experienced strong growth in recent years, the scientific and professional community, recognize that there is little studies that can provide conceptual frameworks and empirical results for a better understanding and application of risk management in the context of supply chain. An alternative to the difficulty of application of risk management in supply chains, is the concept of resilience. Indeed, several recent studies show the resilient supply chain as a means of reducing the vulnerability of supply chains. To Sheffi and Rice (2005), resilience is the ability to rebound after a breakup. Christopher and Peck (2004), resilience is an ability to restore a system to its original or optimal level after perturbation. Finally, Waters (2008) goes further to suggest that "a resilient supply chain is more vulnerable to the occurrence of risk that it acquires not only an ability to manage risk, but what is more important, better positioning the competitors face the" impact break.
This paper has been intended to be the "draft of a" risk-sharing concept in Global Supply Chains, to establish a state of the "art that can provide a clearer picture on concepts that remain highly polysemous such as concept of global Supply Chain, risk and risk management. This observation s "requires is the shortage of work on risk management in the Francophone Research in Logistics and Supply Chain Management, which appears naturally curious. In the continuation of our work, particular attention will be given to the concept of organizational resilience and particularly the resilience of Supply Chains and the contribution of risk management to his expectations.

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