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Risk Management of Multinational Enterprises: Creating Global Strategic Responsiveness

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1. Corporate exposures

Corporate exposures originate from four main types of risk: i) insurable, ii) economic, iii) operational, and iv) strategic risks. With each type of risk, uncertainty, impact, and significance increases for multinational corporations (MNCs) (Andersen & Schröder 2010). This section dissects risk management theory related to economic, operational, and strategic risks and describes how MNCs can manage and hedge against the implied corporate exposures.

1.1. Economic exposures and their relation to operational and strategic risk factors

Floating exchange rates have been a central source of risk to MNCs since the breakdown of the Bretton Woods system in the 1970s (Bartram 2008). Specifically, economic exposures stem from the gains and losses incurred in the settlement of obligations denominated in foreign currency due to changes in foreign exchange rates (Andersen 2006). Underneath the overarching umbrella concept of economic exposures, Moffett, Stonehill, and Eiteman (2003) distinguish between transaction and operating exposure. Transaction exposure arises from existing financial obligations stated in foreign currency terms, while operating exposure is a consequence of future anticipated transactions not yet accounted for.

To further understand economic exposures in relation to other corporate exposures, one can investigate their respective origins from exogenous factors, beyond managerial influence, and endogenous factors related to internal firm activities (Andersen & Schröder 2010). By their nature, economic risks, comprising of exposures to financial rates, commodity price, and inflation rates, are exogenous due to their stimulus from the macro- and socio-economic evolution across interrelated national markets. Meanwhile, operational risks, related to production and manufacturing practices within the firm's global value chain, originate mostly from endogenous factors (Ibid.). Consistently, operational risks are connected to the organisation's ability to successfully execute operations while steering clear of fraud and severe process disturbance, such as BP's refinery explosion incident in 2005. Operational risks also relate to dangers of system breakdowns and tardy adoption of recent technologies. Taking a step further up the ladder of uncertainty, strategic risks occur, predominantly, due to exogenous factors such as changes in demand, sudden competitor moves, or emerging technologies in turbulent business environments (Ibid.). Empirically, we see that these can have severe adverse effects – as in the case of oil firms entering Venezuela, where failure to manage strategic and operational risks factors brought large MNCs to the brink of collapse (Müllner & Puck, 2018).

Whether exogenous or endogenous, risk factors are exceedingly interrelated. Traditional risk management was primarily occupied with insurable financial risks, however, today, there is an increasing focus on operational and strategic risks (Andersen & Young, 2020). Miller (1992)

proposes that trade-offs between exposures to various uncertainties have encouraged an integrated risk management perspective – a mitigation of economic exposures might stimulate unforeseen operational and strategic risks. For instance, it is common for MNCs to engage in risk-transfer activities to hedge against long-term economic exposures. Such activities can be exercised through multinational sourcing and production facilities, triggering the need for a combined focus on exogenous economic risks and endogenous operational risks (Andersen & Schröder 2010). Changes in operating exposure can, in turn, foster new strategic risks – for example, through a more concentrated competitive spectrum unfolding in a new region. Thus, different risk factors counterbalance each other as a result of their twofold interdependency: i) a change in one risk factor can lead to a change in another, just like ii) a management response to a risk factor can cause a change in another. In the shipping company, TORM (2022), such give-and-take effects are a source of major interest in contemporary risk management strategy.

1.2. Identifying, analysing, monitoring, and managing economic exposures

The process of identifying, analysing, monitoring, and managing risks lies at the heart of the generic risk management cycle (Andersen 2012). A firm's economic exposures can be identified as opportunities and threats of exogenous origin via a SWOT analysis (IRM 2010). Gap analyses allow an MNC to measure its exchange rate gaps, interest rate gaps, and liquidity gaps and monitor these in relation to the firm's benchmarks for risk appetite and tolerance (Andersen, Garvey, & Roggi 2014).

Foreign exchange rate gaps are a product of mismatches between foreign exchange rate denominated receivables and payables over time and the related currency exposure (Andersen 2006). Currency exposures can be analysed through the computation of the value-at-risk (VaR) – a quantification of the value a portfolio risks losing, given a pre-specified probability at normal market conditions. This measure also enables risk managers to choose their preferred level of conservatism by adjusting the applied significance level, where high levels indicate less conservative measures. Regression analyses, controlling for variables like interest rates, allow a further investigation of the relationship between cashflows and foreign exchange rates (Bartram 2008). Through such analyses, an MNC can obtain an enhanced understanding of its ability to efficiently hedge its currency exposures. Interest rate gaps develop due to mismatches between the maturity and interest rate basis of assets and liabilities reflected in re-pricing gaps with potentially adverse cashflow effects (Andersen, 2006). Interest rate exposures are often expressed as the net interest income effects caused by a one-percentage point change in the interest rate level. These exposures can be mitigated by the implementation of upper limits on repricing gaps and loan durations, according to managers' preferences (Ibid.). MNCs have three alternatives in their efforts to manage liquidity gaps and hedge against transaction exposures: i) transferring, ii) mitigating, or

iii) accepting risk. Moffett et al. (2003) describe contractual, operating, and financial hedges as the means of transferring and mitigating implied risks. Contractual hedges involve forward, money, futures, and options markets while operating hedges are “natural” and encompass the incurrence of revenue and expense positions in matching currencies to relieve exchange rate exposure. A financial hedge comprises an off-setting debt-obligation like a loan, or a financial derivative like an interest rate swap.

It is harder to analyse, monitor, and manage operating exposures as the associated cashflows have not yet been accounted for. Consequently, firms can only grasp the effect of future exchange rate fluctuations by analysing projected sales and costs for a given time horizon. Managers can analyse operational breadth and depth throughout the organisation to enhance awareness of its degree of operational dependency across foreign countries (Pantzalis, Simkins, & Laux, 2001). Based on the conclusions of their analyses, MNCs can decide to hedge their operating exposures by means of operational diversification and natural hedges. Further hedging could be achieved through supply chain configurations, to strengthen the flexibility and agility of the supply chain (Miller, 1992).

Regardless of any hedging efforts, a fundamental lack of clarity persists regarding their actual value. Hedging activities are performed to potentially shield MNCs from unnecessary losses, however, they can equally reduce potential gains from unhedged economic exposures. This means that hedging does not necessarily add value to the MNC. Further, effective risk management requires paying attention to all levels of uncertainty. In 2006, Lehman Brothers were “committed to a culture of risk management at every level” (Andersen 2010), yet nevertheless, botched their responses to multiple risk factors. From 2006 to 2007, the VaR more than doubled, and the leverage rate rose notably (Ibid.). Even though many of the risks affecting Lehman were industry-based, most financial institutions survived the 2008 financial crisis. Therefore, Lehman did not collapse simply because of mismanaged financial risks (RiskMinds 2010). Instead, inappropriate corporate culture and strategy lay at the heart of the downfall (Andersen 2010), which meant that a broadened perspective on corporate risk was necessary in order to tackle all corporate exposures.

1.3. Broadening the corporate risk perspective with ERM and SRM

Even though traditional risk management (RM) practices might be crucial to avoid the likelihood of downside losses, they are not sufficient to improve processing efficiencies and operating effectiveness. Instead, the more recent focus on enterprise risk management (ERM) implements an internal-process-oriented focus (Andersen & Schröder 2010).

Integrated frameworks like ISO 31000 (IRM 2018) and COSO (2004) have been put forth to guide MNCs in developing ERM practices. Both frameworks associate risk management with the

fulfilment of objectives: ISO 31000 considers risks as the effects of unclear firm objectives, while COSO attempts to identify unexpected events that can threaten the achievement of the firm's objectives through its cube framework, guiding the firm through different risk types via defined processes at distinctive business levels. Using the proactive identification methods of ERM frameworks like ISO 31000 and COSO, firms can mitigate operational exposures as the potential threats related to, for instance, GVC disruption are identified, analysed by means of impact-likelihood maps, monitored, and acted upon. However, these formal ERM frameworks exhibit noteworthy shortcomings. First, their scope is merely reactive, implying an inability to cope with non-linear black swan events like the COVID-19 crisis. Second, there are significant barriers to their implementation. For instance, COSO aims to incorporate all the different layers of an MNC – a highly complex governance task. But most importantly, ERM frameworks fail to consider strategic risks.

By blindly adhering to the principles of ERM frameworks, risk managers are in danger of overlooking strategic exposures (Andersen & Young, 2020). These are generally harder to identify and measure, which explains their underrepresentation in current risk management approaches. Thus, firms must employ a holistic strategic risk management (SRM) focus to extend conventional risk concerns to include various strategic risks that, in fact, imply the highest level of uncertainty (Andersen & Schrøder 2010). However, a risk management approach that effectively deals with strategic risks is yet to be developed, due to the unforeseeable and unquantifiable nature of such risks. Nevertheless, MNCs must be able to respond constructively to the occurrence of these events. In this regard, the adoption of a real options perspective may support strategic responsiveness (Ibid.). Real options encapsulate business opportunities that can be executed upon or disregarded according to market circumstances. This flexibility can boost risk management practices under unstable market conditions as the real options extend the range of adaptive responses in changing competitive conditions (Ibid.). It is such reflections that underpin LEGO's SRM approach, which arises from the continuous "preparation for uncertainty" and "active risk and opportunity planning" (Girard 2013). Here, real options put business opportunities in place that are similar to the options instruments employed in financial hedging.

1.4. Conclusion

Effective risk management acknowledges the interrelated nature of distinctive types of risk and addresses corporate exposures with a range of hedging instruments. Contemporary risk management broadens the traditional focus on economic exposures and forces MNCs to concern themselves with less predictable operational and strategic risks through formal frameworks and real options. Firms may choose to combine elements of both.

2. Organisational behaviour and cross-border investments

Cross-border investments are undertaken by MNCs in their efforts to scale globally and realise their economic aspirations. MNCs can use cross-border investments to diversify and retrieve new markets, talent pools, and customers. However, foreign market operations involve increasing costs, complexity, and uncertainty as a result of liabilities of foreignness (Young, Ghoshal, & Westney 1993), thereby connecting cross-border investment decisions to risk management. This section will look into the influence of organisational structure and core values on risk appetite, the affiliation between organisational behaviour and cross-border investments, as well as how they are conducted and subsequently shape the global value chain.

2.1. The influence of organisational structure and core values on risk appetite

Organisational structure and core values have been recognised by various scholars as significant contributing factors to MNC risk appetites and risk policies.

An MNC's organisational structure regulates the distribution of decision rights, intracompany communication links, and information systems, directing data and information from front-line workers to management and vice versa (Andersen 2012). An organisation capable of taking decentralised action is inclined to respond quicker to unanticipated events, however, only if the front-line staff is given the appropriate instruments to act in accordance with the overarching risk appetite and tolerance of managers. If not, the inconsistencies between the required action and actual response can lead to unfavourable decentralised decision-making (Damodaran 2008).

Generally, organisations with flat hierarchies are more responsive and flexible. Still, transparency and accountability are highly valued organisational virtues and MNCs should strive for them in order to preserve consistency between the managerial risk appetite and front-line responses. For instance, by employing open communication mechanisms, managers can augment the swift identification of risks and discourage groupthink, collective inaction and the “normalisation of deviance” that led to NASA's Challenger disaster in 1986 (Price & Williams 2018). Similarly, the timely identification and handling of endogenous and exogenous risks can occur naturally. The principal of open communication is essential, particularly across global value chains where effective communication is a requirement for agility. This is illustrated by Nissan's actions following the Fukushima incident, with several of its plants in close proximity to the disaster.

Core espoused values affect the corporate code of conduct and can be regarded as the general set of behavioural guidelines for the MNC (Schein 2004). These are, like the organisational structure, highly influential on an MNC's risk-taking behaviour and ability to respond to unanticipated events (Andersen 2014). Damodaran (2008) sees the act of rewarding and punishing appropriate and

inappropriate risk-taking behaviour as a key component of risk management. With respect to behavioural guidance, core corporate values implemented through managerial actions and deeds are an effective means of achieving responsible corporate risk behaviour and longer-term adaptability (Andersen 2017). As such, downside risks are reduced through greater organisational flexibility (Husted 2005). Yet, while the implementation of espoused values might be simpler across smaller organisations, MNCs are likely to have to handle the inconvenience of aligning core values across numerous countries – possibly with large psychic distances (Child, Rodrigues, & Frynas 2009).

In practice, the actual behaviour of the organisation is not always aligned with the espoused corporate values (Schein 2004). And even if it is, the organisational structure, values, and culture imposed by management might not be appropriate for dealing with turbulence in the external environment. For instance, Shim and Steers (2012) find that the contrast in Toyota and Hyundai's structure, values, and culture is part of explaining their successes and failures in handling their 2009 recall crises. Toyota's emphasis on stability through planning and work systems as opposed to Hyundai's attention to flexibility via acceptance of uncertainty resulted in Hyundai being able to change its course faster than Toyota as new opportunities and technologies emerged. While national cultures also played a role, organisational structure and values had a more pronounced effect on risk appetite, behaviour, and performance (Shim & Steers 2012).

2.2. Affiliation between organisational behaviour and cross-border investments

The fundamental determinants of risk tolerance and behaviour in an MNC are deeply rooted in its organisational structure and core values. Hence, the execution of cross-border investments is heavily linked to the structure and values of the MNC. Following this argument, MNCs can improve their handling of economic, operational, and strategic exposures through attention to intangible cultural features that reinforce a vigorous risk culture integrated via a healthy organisational setup. Since cross-border investments are conducted on the basis of an estimation of cash flows returned to the parent company in its own currency (Moffett et al. 2003), investment decisions depend directly on the risk appetite of the firm – its tolerance can, for instance, be modified by raising and lowering the projected cost of capital. This means cross-border investment decisions vary according to the culture of the parent company and how it perceives risk. Nevertheless, the opposite affiliation also applies.

Cross-border investments can affect the organisational structure and core values of the firm and complicate management's task in handling these. Naturally, cross-border investments make the organisation more decentralised and elevate the need for strong communication systems, defined roles and responsibilities, as well as control systems. For Toyota, the company had spent six

decades establishing a lean production and management system, famous for its high performing and learning organisation. Still, the 2009 crisis culminated in the recall of over 9 million cars worldwide due to deviation from the original organisational configuration. The case demonstrates how managerial ambitions geared towards global growth achieved via cross-border investments overtook the preservation of the Toyota Way¹ and triggered an organisational misfit (Camuffo & Wilhelm 2016). Having considered how aspects of organisational structure and core values interact with company risk appetite, investment policies, and cross-border investments, we can dig deeper into the practical considerations that precede investment decisions.

2.3. Conducting investment decisions

Even though cross-border investments are conducted on the basis of discounted cashflow (DCF) analysis (Moffett et al., 2003), MNCs must keep in mind the entailed increases in economic, operational, and strategic exposures. For instance, foreign exchange rate fluctuations or expropriation risks, as currently in Russia (Afanasieva 2022), can increase complexity. Foreign direct investment decisions are influenced by a combination of economic, behavioural, and economic considerations, but must also be justifiable through financial analysis.

MNCs can compare the attractiveness of investment options using capital budgeting methods like NPV, IRR, or the payback method (Moffett et al., 2003). Firms can also change the inputs in their models to consider uncertainty levels related to the FDI. An increased risk premium, decreased cashflow expectations, a shortened payback period, or a higher earnings multiple requirement can modify the analysis according to country-specific risks (Holmén & Pramborg, 2009). The models are quantitative by nature. Nevertheless, inputs will always be subject to behavioural biases. Further, some risks are very hard to quantify because they are qualitative. As such, many MNCs fall back on the payback method despite the fact that it does not recognise time value of money or cashflows incurred after the cut-off date (Holmén & Pramborg, 2009). Moreover, financial analysis is incapable of taking the strategic elements of cross-border investments into account, despite these being particularly important to the configuration of the firm's global value chain.

2.4. How cross-border investments shape global value chain resilience

Firms must configure their value chains with the aim of efficient resource optimisation. Although operational efficiency and global expansion are key aspirations, they must never be the sole objectives of the firm (Ghoshal, 1987). Increasing globalisation and complexity involve expanding liabilities in the form of risk exposure. Therefore, a firm needs to reflect upon how the resilience

¹ “Toyota Motor Company established a ‘lean’ production and management system (the Toyota Way), which has become an iconic template for a high performing and learning organization” (Camuffo & Wilhelm 2016).

of its global value chain will be affected by the cross-border investments it contemplates. Christopher and Peck (2004) define supply chain resilience as “the ability of a system to return to its original state or move to a new, more desirable state after being disturbed”. Therefore, an MNC can generate value chain resilience by assigning cross-border investments to maximise agility and flexibility. For instance, an agile value chain will be capable of redistributing particular business activities like manufacturing and sales between different regions in the event of exogenous disturbance and value chain distortions. As an example, the more operationally diversified firms were faster to recover and return to their original state after the 2011 Great East Japan Earthquake (Todo, Nakajima, & Matous 2015).

Breadth and depth analysis can be applied to assess the flexibility of a value chain based upon cross-border investment diversification. Firms can mitigate single-market exposure by virtue of a large range of cross-border investments with low concentration, translating into high breadth and low depth (Pantzalis et al. 2001). Part of the reason for the high level of diversity in a large MNC like LEGO (Girard 2013) is that natural hedges are less costly for large firms as opposed to smaller firms that exhibit lower geographical diversity. This difference is partly due to firm size as well as the fact that MNCs must cope with lower sunk costs when “going abroad,” since they most likely already undertake some sort of endeavour in the specific location. This means that “path dependency” can end up being a source of new cross-border investments, bringing global value chain resilience and flexibility (Banton, Khartit, & Kvilhaug 2021).

To mitigate the country-specific risks as well as the operating and strategic exposures that inevitably accompany a dispersed global value chain, the MNC must adopt a real options perspective to amplify flexibility, agility, and resilience. At LEGO, “if SKU2 is doing well but SKU7 is failing, all they need to do is repackage the bricks into the boxes of the one that's selling really well” (Girard 2013). In this case, LEGO has the real option to defer production, abandon the SKU, or alter the product, emphasising the resilience of the MNC’s global value chain.

2.5. Conclusion

Organisational structure and core values are interrelated with cross-border investment decisions due to their influence on risk appetite and tolerance. By their nature, cross-border investments involve more complexity and economic, operational, and strategic exposures. To effectively analyse and manage risk, MNCs must therefore: i) incorporate the augmented uncertainty in their capital budgeting analyses, and ii) study (and account for) how the breadth and depth of their foreign direct investments will shape their global value chain resilience.

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