

# **UGSM-Monarch Business School Doctoral Research Plan**

The Creation of Meaning Between Corporations and Society:  
A Study of the Optimization of Lean Six Sigma Methodology  
Within The FMCG Industry

PROGRAM:	Doctor of Management
SUBMISSION DATE:	June 15, 2013
CANDIDATE:	Mr. Omar Muassess BA
PROPOSAL SUPERVISOR:	Dr. Nag Barin, Ph.D.
DISSERTATION SUPERVISOR:	Dr. Nag Barin, Ph.D.

## INTRODUCTION

A well designed supply chain is a main contributor to the success of business in the fast moving consumer goods (FMCG) industry. One well-know and respected method for supply chain optimization is known as Lean Six Sigma. Lean Six Sigma supply chain decisions include the sourcing of materials in a way that influences overall quality. It involves reducing costs to minimal levels through optimization policies to increase profits. It also provides services that lead to the satisfaction of customers and accordingly generates growth. Lean concepts in the supply chain take the form of the “Toyota Production System” (TPS) in manufacturing. Taiichi Ohno the architect of TPS believed that the elimination of *muda*, Japanese for waste, was fundamental for success of any company (Ohno, 1988). Ohno developed a list of seven basic forms of muda: 1. defects in production; 2. Overproduction; 3. Inventory; 4. unnecessary processing; 5. unnecessary movement of people; 6. unnecessary transport of goods; and 7. waiting by employees. (Goldsby, et al., 2006) Optimizing quality, cost and services through the supply chain by implementing Lean Six Sigma methodolgy may create significant competitive advantage (Stalk, 1988).

The contemplated research identifies the role of the supply chain in creating the above mentioned competitive advantage within FMCG companies through the use of Lean Six Sigma methods. The focus in particular is in maintaining reliability, quality and flexibility in the supply chain while simultaneously eliminating waste and at the same time keeping only the value added activities (George, et al., 2004). It is emphasized that cost savings are generated throughout the whole value chain in a corporate environment thus contributing to business profits. The research will cover the generation of these savings from procurement, manufacturing, storage and distribution. The research will also examine the continuity and growth of business by maintaining reliability, quality and flexibility of operations. The use of leading Six Sigma measures to drive performance and the characteristics of these leading measures are crucial elements of this research. (Bhagwat et. al., 2007)

As it can be imagined, in the area of cost reduction the supply chain has a large role to play. The supply chain in this perspective not only constitutes logistics but also includes procurement, manufacturing, customer services and physical logistics. Supply chain management in all these mentioned areas adds value to business and drives competitiveness when operational excellence is maintained. Important to supply chain management is the process of planning, implementing, and the controlling of working capital while ensuring supply to meet customer requirements (Cooper, et al. 1997).

Supply chain reliability builds trust and a positive image for the brands and products of a company in the eyes of its consumers (Christopher, M. and Lee, H.,2004). This can be ensured by management taking a long-term view moving the supply chain towards the creation of shared values and not merely by managing the supply chain as a driver of short term profit. One example of this is the reduction of pollution by building manufacturing units closer to raw materials and packaging materials resources. Hundreds of thousands of miles of goods transportation by sea and land can be avoided and accordingly considerable carbon emission from burning fuel can be eliminated. At the same time considerable money can be saved thereby enhancing the competitive posture of the company. As described by Kramer (2011) profits can be generated in different ways. Profit that involves a social purpose represents a higher form of capitalism and one that creates a positive cycle of company and community prosperity. This focus in turn creates even greater brand value.

Maintaining flexibility in the supply chain is essential in maintaining competitive advantage. Two areas are critical: 1. the availability of a portfolio of products, and; 2. the optimization of lead times. The ready availability of a portfolio of products generates business growth. This will not only require manufacturing capacity of finished products it will also require flexible raw material suppliers, packaging materials as well as services. The optimization of lead

times to match the expectations of customers requires the possibility to change the delivery times as required (Sánchez, A. M. and Pérez, M. P. 2005).

Maintaining quality in the supply chain is a critical factor for FMCG corporate multinationals. Quality assurance is extended to suppliers, not only to guarantee the quality of finished products, but also to ensure the development of suppliers in rural areas. In this perspective keeping quality enhances the creation of shared values in the society where these companies operate. Maintaining supply chain quality also includes the possibility of tracing products distributed in batches. This can help to rescue the reputation of a company and maintain food safety in the case of food product recall. In this perspective Marsden et al. (2000) illuminates the type of relationship between the producer and the consumer and the role of this relationship in constructing value and meaning.

In summary, the contemplated research will examine the following:

1. The exploration of supply chain reliability, flexibility and quality, as factors that contribute to the role of the supply chain as a competitive advantage in FMCG multinationals corporations;
2. The balance between efficiencies in operations and the factor of low cost as an essence to creating competitive advantage;
3. The use Lean-Six Sigma in the supply chain to optimize cost and ensure greater efficiency;
4. The development of a new model or framework that will identify the key elements within the construction of value and meaning between corporations and society through the implementation and optimization of Lean Six Sigma methodology.

In summary, competitive advantage of FMCG low cost operations is viewed as the efficiency of the supply chain to maintain reliability, quality and flexibility. The right balance of leading

measures obtained through Lean Six-Sigma methodology can enable both low cost operation and the maintaining of reliability, quality and flexibility in order to optimize competitive advantage (Solberg, et al., 1997). Moreover, the optimization of the supply chain can create greater meaning between corporations and society further enhancing and reinforcing brand value. It is believed that research focussing on the creation of meaning between corporations and society through the implementaiton of Lean Six Sigma methods has thusfar not been adequately researched and therefore presents an opportunity to create new knowledge within the domain.

## PROVISIONAL RESEARCH QUESTION

Given the above discourse a provisional research question has been developed as:

What are the characteristics of a new framework or model based on the implementation of Lean-Six Sigma methods that identifies how FMCG companies can create greater meaning between themselves and society while simultaneously enhancing their brand value?

## RESEARCH METHODOLOGY

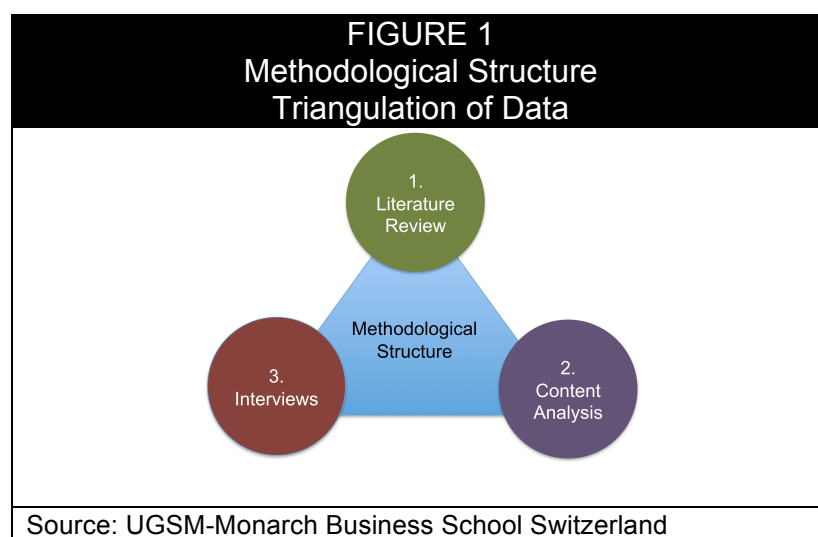


Figure 1 shows that the aim of the contemplated research is to respond to the provisional research question by way of a triangulation of research data, being: 1. literature review of existing seminal academic authors (desk research); 2. content analysis of existing corporate data (desk research), and; 3. interviews with primary stake holders in industry (field research).

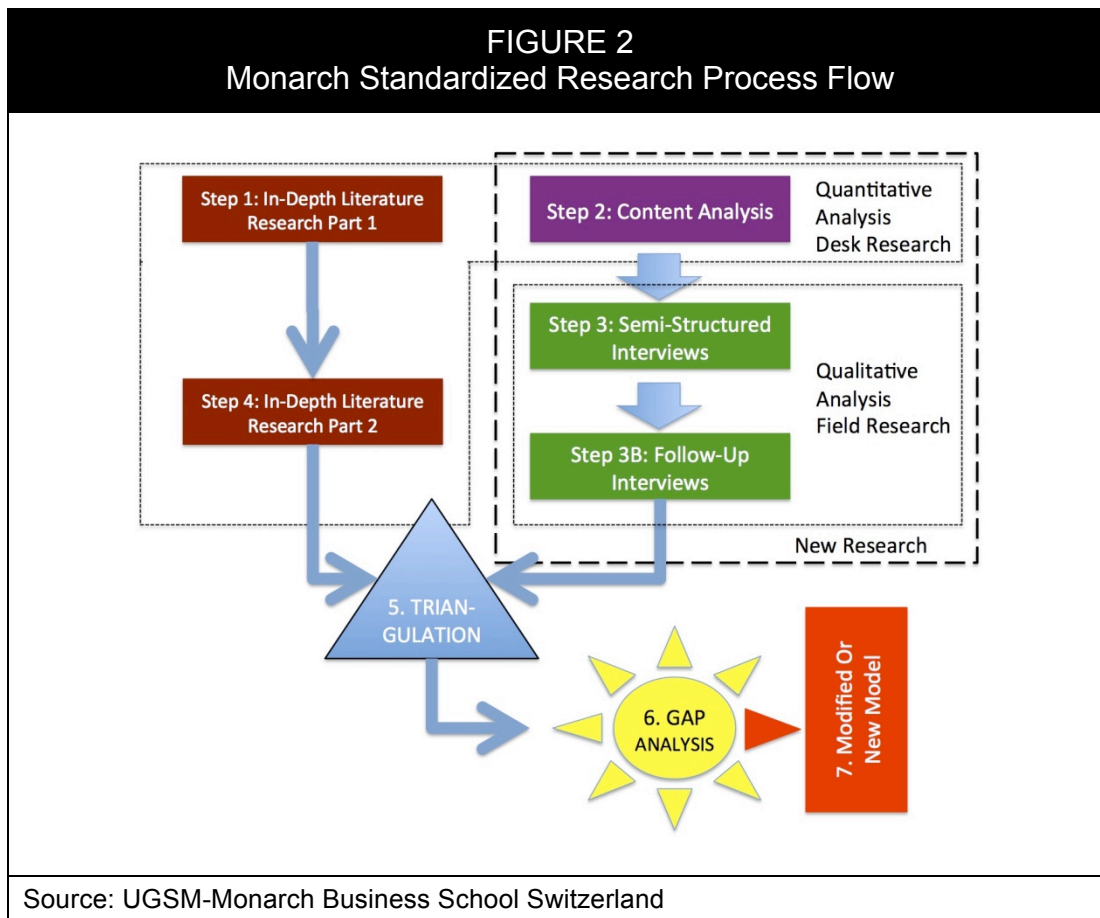


Figure 2 illustrates the steps within the Monarch Standardized Research Process Flow that will be followed within the contemplated research, as:

1. **In-Depth Literature Review-Part 1:** In-depth review of the seminal authors within the domain of Intellectual Capital will be the first step completed in order to provide a solid academic foundation to the research.
2. **Content Analysis:** An analysis based on data obtained from annual reports, white papers, supporting commercial documents and other commercial data sources will be examined.

3. **Two-Step Semi-Structured Interview Process:**

Step 1. **Preliminary Interviews:** The development of preliminary interview questions will be informed by and synthesized from the review of the literature and content analysis. Stakeholders to be interviewed will be industry participants considered knowledgeable with respect to the research at hand. A minimum sample of thirty (30) unique participants will be interviewed. Interviews will be held in person at a location amenable to the subjects and are expected to be approximately thirty (30) minutes in length. Telephone interviews will be used in the case that physical interviewing is impossible due to resource or time constraints. Interviews will be tape recorded unless objected to by the participant in which case manual notes will be taken.

Step 2. **Follow-Up Interviews:** of a more specific and narrow view informed by the first round of interviews, content analysis and literature review will be concluded with a smaller sub-set of 15 respondents obtained from the first round sample. These interviews will seek to uncover deeply held personal beliefs and understandings on the research subject that will further uncover

important aspects in responding to the provisional research question.

4. **Step 4-In-Depth Literature Review-Part 2:** A second more in-depth literature research review will be completed to further refine the scope and consideration of the existing knowledge within the academic field to add more expertise and specificity to the research analysis.
5. **Step 5 & 6 - Triangulation of the Data & Gap Analysis:** A triangulation of the data will be considered and analyzed in order to determine whether or not the existing academic knowledge is congruent with the practical application of the field on a commercial basis. The result of this analysis should dictate whether or not a “Knowledge Gap” exists between the academic (theoretical) and the practical (applied) domains.
6. **Step 7: Development of New Model:** Building on the Gap Analysis a thorough analysis of the existing frameworks within the academic domain will be made. This analysis will inform whether or not the existing frameworks sufficiently address the requirement for practical application within the industry and whether or not they may be further improved or modified.

The contemplated research is expected to conclude over a 36 month period. A breakdown of the time allocation by the different phases of the research is outlined in Table 3 below.



TABLE 3 Provisional Research Timeline													
		Year 1				Year 2				Year 3			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
PART A	Pre-Literature Review	■	■										
	Literature Review Part 1			■	■	■	■						
	Research Plan		■										
	Chapter 1			■									
	Chapter 2 & 3				■	■	■						
	Content Analysis				■	■							
		Official Submission of Chapters 1, 2, 3 and Slide Presentation To Obtain Authorization To Continue On To Field Research											
PART B	Interviews Part 1							■					
	Literature Review Part 2							■	■	■	■		
	Interviews Part 2									■			
	Data Analysis									■	■		
	Chapter 4, 5, 6											■	
	Manuscript Perfecting										■	■	
	Submission												■

Source: UGSM-Monarch Business School Switzerland

The research will be privately funded. No requests for supplementary grants, assistantships or scholarships will be made. The total budget of the project is approximately 11,500 Euros. No additional resources or funding will be requested of UGSM-Monarch Business School Switzerland. The budget is presently funded and research may begin immediately upon approval.

TABLE 4 Research Budget	
	In Euros
Conferences	1,000
Hotel Accommodations	1,500
Travel	4,000
Books & Articles	1,500
Statistical Software	1,000
Proof Reader	1,000
Miscellaneous Expenses	1,500
<b>TOTAL</b>	<b>11,500</b>

## BIBLIOGRAPHY

1. Bhagwat, R. & Sharma, M. K. (2007). Performance measurement of supply chain management: A balanced scorecard approach. *Computers & Industrial Engineering*, 53(1), 43–62. Elsevier.
2. Christopher, M. & Lee, H. (2004). Mitigating supply chain risk through improved confidence. *International Journal of Physical Distribution & Logistics Management*, 34(5), 388–396. Emerald Group Publishing Limited.
3. Cooper, M. C., Lambert, D. M. & Pagh, J. D. (1997). Supply chain management: more than a new name for logistics. *International Journal of Logistics Management*, The, 8(1), 1–14. MCB UP Ltd.
4. George, M. L., Rowlands, D. & Kastle, B. (2004). What is Lean Six Sigma? McGraw-Hill New York.
5. Goldsby, T. J., Griffis, S. E. & Roath, A. S. (2006). Modelling lean, agile, and legible supply chain strategies. *Journal of Business Logistics*, 27(1), 57–80. Wiley Online Library.
6. Kramer, M. R. (2011). Creating shared value. *Harvard business review*, 89(February), 62–77. Harvard Business School Publication Corp.
7. Marsden, T., Banks, J. & Bristow, G. (2000). Food supply chain approaches: exploring their role in rural development. *Sociologia ruralis*, 40(4), 424–438. Wiley Online Library.
8. Sánchez, A. M. & Pérez, M. P. (2005). Supply chain flexibility and firm performance: a conceptual model and empirical study in the automotive industry. *International Journal of Operations & Production Management*, 25(7), 681–700. Emerald Group Publishing Limited.
9. Solberg, L., Mosser, G. & McDonald, S. (1997). Why are you measuring? *Journal on Quality Improvement vol*, 23(3), 135–147.
10. Stalk, G. (1988). Time-the next source of competitive advantage. Harvard Business Review.