

ROLE OF EXPATRIATES IN AN INTEGRATIVE AND
COLLABORATIVE SUPPLY CHAIN AS AN EFFICIENT
HUMAN RESOURCE IN MULTINATIONAL COMPANIES
OPERATING IN INDIA

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ABSTRACT

Purpose – The Supply chain integration and collaboration is need of an hour to emphasise on resources optimisation and to create supply chain surplus thus the present paper tries to investigate the level of expatriate involvement in supply chain performance of multinational companies and explore how organizations can better utilize the expatriate talent for achieving supply chain efficiency and effectiveness.

Design/methodology/approach – A research study was explorative and descriptive with sample of twenty expatriate employees working in multinational companies in Bangalore. The survey was conducted by administering the questionnaire to evoke their opinion on three variables which would affect the supply chain efficiency.

Findings – The results showed that the expatriates were involved to a diminutive extent in supply chain planning and delivery co-ordination irrespective of their positions in the multinational companies.

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Research limitations/implications – The study was based on a small sample of twenty expatriates working in multinational companies of Karnataka. The context and process imposed constraints limit the application of findings to other multinational companies in general.

Practical implications – The study provides a framework for ascertaining the need of expatriates in gaining supply chain momentum of the firms operating in multiple regions. It also provides an understanding of collaborative planning initiatives in the supply chain management of multinational companies using expatriate talent for joint decision making and joint problem solving.

Originality/value – The study empirically verified the expatriate involvement in supply chain planning and delivery co-ordination. The study highlights the concept of using expatriate talent in supply chain planning who work in a concerted manner to share knowledge and expertise that leads to supply chain efficiency in Multinational companies.

Keywords – Expatriate; Supply Chain Planning; Delivery coordination; Judgement Sampling

INTRODUCTION

Firms in today's marketplace are looking for many ways of differentiating themselves from their competitors. Competitive advantage creation in the area of supply chain perspective is vital to expand growth potential of the company. The triumph of any supply chain management system (SCMS) depends on how well the complex network of suppliers, factories, warehouses, distribution centres, retailers and other system components are managed. In such a scenario it is necessary to forecast and estimate the demand, supply raw materials to the point of sale locations and reorganize the business structure if necessary. There should be flawless flow of information and materials in order to realize these goals in the system. Such a system can provide access to information, aid decision making and execution with the use of skilled manpower.

However, Companies are aggressively pursuing initiatives to better manage their supply chains (McLaughlin et al, 2003). Optimizing supply chain activities is critical to all industries since it saves money, increases throughput, decreases inventory levels and increases revenues, thereby

improving the organization's financial status (Ainapur et al. 2011). In that sense, many companies are expanding the scope of management of operations to manage upstream and downstream channels in their supply chain. Integration of various business processes is a vital part of building supply chain initiative. In multinational companies the integration is achieved through the participation of both human resources i.e., local as well as expatriates. Much contemporary research into expatriates and the expatriation process is debatably too rooted in the experience and perspectives of the industrialized world, and the analysis commonly found in the "globalization" literature. One implication of this is that there is little research into the dynamics of effective localization and the role of expatriates in the supply chain management process that is of any relevance to the developing countries in which many expatriates still work.

Furthermore, the conventional market-based buyer supplier relations have been transformed into an aggressive competition among cooperative sets due to the incorporation of supply chain management in contemporary business model (Patnayakuni et al. 2006). The supply chain efficiency greatly depends on the seamless collaboration of distributors, manufacturers and suppliers through the use of inter-organisational systems (IOS) and technological approaches (Pramatari 2007).

Additionally, building the right kind of supply chain is a strategic undertaking; it implies a different role and set of responsibilities for supply chain executives. These executives must become strategic thinkers, collaborators and orchestrators who optimize complex networks of global capabilities. In the present scenario, supply chain managers play a vital role in improving customer service, ensuring continuous flow of materials and information upstream and downstream the supply chain that leads to ecological balance (e.g., Handfiled et al. 1999, Goebel et al. 2003, Sheffi 2005). All the time more, Chief Supply Chain Officers have greater responsibility to create a Smarter Supply Chain of the Future.

The study in the present paper looks beyond the general view of supply chain management and focuses on the people aspect specifically in the multinational context. It attempts to determine the gaps found in the literature with regard to involvement of expatriates in supply chain planning and collaboration in order to realise potential benefits for the multinational companies.

To understand this new issue of involving expatriates in the supply chain integration and collaboration of the multinational companies, a multi-stage study was undertaken to address the following research questions:

- ✧ What is the profile of expatriates in Multinational Companies operating in Bangalore?
- ✧ What is the opinion of expatriates regarding Supply Chain Information System followed in multinational companies?
- ✧ To what extent the expatriates are involved in supply chain planning and collaboration in the multinational companies?
- ✧ Whether expatriates are involved in enhancing the supply chain performance through delivery co-ordination?

These questions and objectives are addressed in the next five sections: (1) Literature survey on supply chain management and expatriates; (2) the research methodology used in the study; (3) Major findings and discussions of the study; (4) Managerial implications; (5) Conclusion and scope for further research

LITERATURE REVIEW

Clegg & Gray (2002): According to them, more and more countries engage in global competition, the imperatives of globally competent human capital indicate that the market for expatriates is changing and becoming more demanding. As such the need for understanding the dynamics of expatriate related issues are ever increasing. While the research focus of those investigating the IHRM field has expanded significantly in recent years, expatriate management issues remain a critical concern.

Tahir and Ismail, (2007): In their article on “*Cross-Cultural Challenges and Adjustments of Expatriates: A Case Study in Malaysia*”, define 'expatriate' as an individual who is not a citizen of the country of which he or she is assigned to work in. In their opinion, the expatriates are used mainly to transfer knowledge from the home country to host country firms where they receive high respect. The role of expatriates is regarded as characteristically significant since they maintain the organisational structure and contribute to the philosophy of multinational companies (MNC's) without compromising the rules and regulations of work within the host country.

Wong et al., (2004): According to them, “A supply chain (SC) is a wide (national/global) network of suppliers, manufactures, warehouses, distribution centres and retailers through which raw materials are acquired, transformed and delivered to customers”. Supply chain management (SCM) deals with the coordination of manufacturing and logistics activities between autonomous decision making units. They further state that optimizing supply chain activities is critical to all industries since it saves money, increases throughput, decreases inventory levels and increases revenues, thereby improving the organization’s financial status. Thus, integration of various business processes is an integral part of building supply chain initiative.

Aitken et al. (2005): They express that there may be a range of different supply chain solutions for different customers and vigilant analysis is required to determine the design that is appropriate to a particular business strategy. Supply chain management is beyond just buying and selling; it helps a firm to maintain the competitive advantage over other companies. The strategic focus of supply chain management is still evolving and is a major challenge for managers and researchers.

S.A.Melnyk et al. (2009): In their opinion, supply chain management has gained momentum and is the order of doing business successfully in both domestic and international assignments. The supply chain system design is dynamic and changes from firm to firm and country to country. Further they noted that supply chain management lacks talent management due to insufficient supply of skilled, cross-functional trained supply chain experts. Models focusing on competencies required to perform various roles of supply chain need to be developed. Specifically global business proficiency need to be developed as trade scenario these days is dispersed across multiple countries. Training in the areas of strategic and operational levels of supply chain is needed. There is lack of industry-academic interface which needs to be strengthened. To become supply chain leaders, employee advancement through supply chain competencies, gaining cross-functional expertise is considered to be need of the hour.

Tan et al. (2002): They indicate that the important element of supply chain integration is inter-organisational decision making in collaboration with supply chain members and their involvement in the strategic decision making of the supply chain entities. Increasing global cooperation, vertical disintegration and a focus on core competencies have led to the concept that firms are linked in a networked supply chain. A truly integrated supply chain network requires commitment by all the members of chain. Buyers have to revamp their purchasing cycle to integrate externally with supplier's engineering teams and internally with product designers. Thus, they point out the need for involving all supply chain members in the business processes of the firm.

Wouters (2009): point out the concept of 'enabling performance management', emphasises the need for involvement of people at all levels, beginning with the establishment of metrics. Performance management dimensions - performance measurement, need of developmental approach, importance of delegating performance measurement at different levels of organisational hierarchy and the idea of 'metrics for people' are treated in detail. Thus, he suggested for longitudinal studies that focus on a holistic performance measurement system including the human side and organisational issues.

With these insights into literature review, justifies the need of robust human resources to enhance the supply chain performance, which forms the basis of this research work.

RESEARCH METHODOLOGY

Research problem

In today's business scenario, supply chain management is undergoing a major transformation from tactical nature to strategic nature. Increasingly managers, researchers and educators recognise the importance of supply chain management and its effect on the functional and corporate performance. The important success criteria for supply chain excellence includes collaboration, agility and flexibility and today's supply chain performance management still appears to be having difficulty in measuring the degree of collaboration, agility and flexibility. The present paper provides a clear understanding of the growing importance of human resources in the field of supply chain management.

Instrument

A structured questionnaire was prepared to collect data on the involvement of expatriates in the supply chain management of Multinational companies. The questionnaire was divided into two parts – Part A containing demographic details of the expatriates while Part B consisted of questions relevant to the expatriate involvement in supply chain management. The questions were both open-ended as well as multiple choice questions. The questionnaire was designed by identifying different parameters associated with expatriate deployment and supply chain management of multinational companies.

Sampling plan

Population: Employees of different multinational companies who are visiting/visited client site/onsite.

Sampling Frame: Expatriate employees of multinational companies of Bangalore

Type of Sampling: Judgement sampling, a non-probability sampling method was used to select the employees who have undergone expatriation. Judgment sampling is basically used along with process and subject matter familiarity to choose useful samples for learning about process performance and the impact of changes over time (Perla, 2012).

Sample size: 20 expatriate employees working in different multinational companies of Karnataka.

HYPOTHESIS STATED FOR THE STUDY

Hypothesis 1: There is no significant difference between the expatriate positions and their involvement in supply chain planning.

Hypothesis 2: Expatriate involvement in delivery co-ordination and supply chain performance is independent in the Multinational Companies.

IDENTIFIED VARIABLES FOR TESTING THE HYPOTHESIS

- ❖ Supply chain information system
- ❖ Supply chain planning and collaboration
- ❖ Delivery coordination

The statistical tool used for evaluating and interpreting the questionnaires into meaningful information for resulting analysis was Statistical Package for the Social Sciences (SPSS). One-

way ANOVA technique was used to test the significant difference between expatriate position and their involvement in supply chain planning. Pearson Chi-square test of independence was used to test the relationship between Expatriate involvement in delivery co-ordination and supply chain performance of the multinational companies.

FRAMEWORK OF THE EXPATRIATE ROLE IN A FIRM'S SUPPLY CHAIN EFFICIENCY AND EFFECTIVENESS

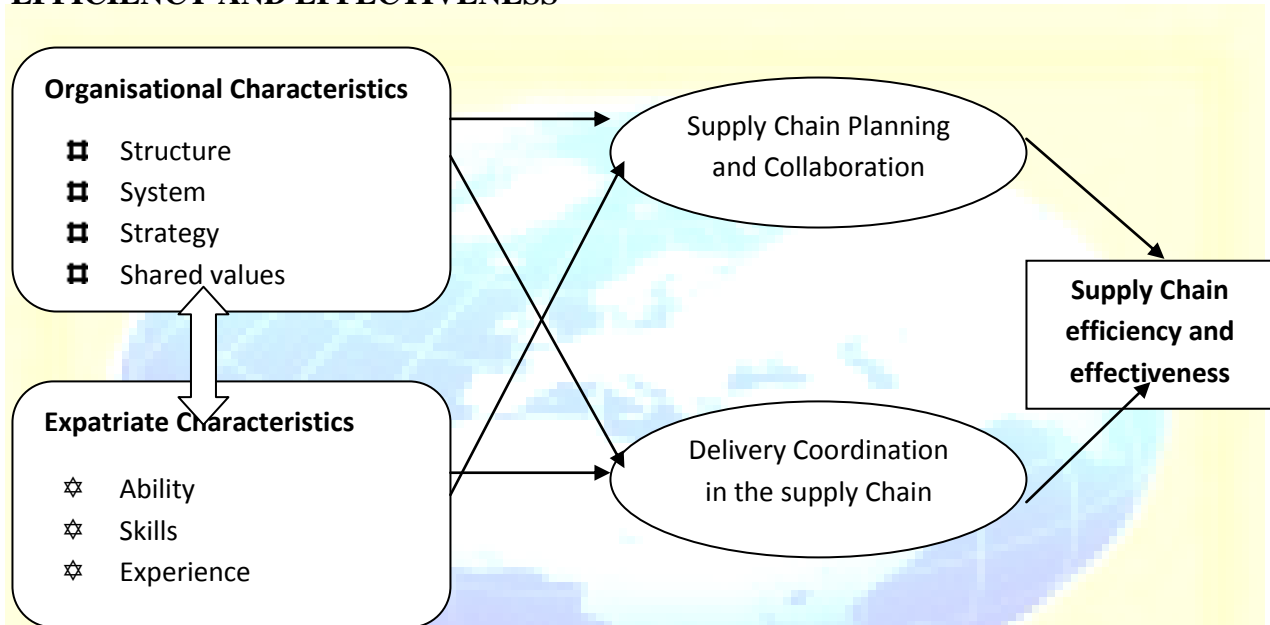


Fig.1: Framework of expatriate involvement in enhancing SC efficiency and effectiveness

RESULTS AND DISCUSSION

The data was collected from 20 respondents electronically during a three week period (March 2013). The descriptive statistics used for this research was age, experience and income per annum and from looking at the results, the mean age is 31 years with 25 and 40 years being the lower and upper age groups.

Table 1 - Profile of expatriates in the selected IT Industries

	N	Range	Minimum	Maximum	Mean	Std. Deviation
Age (Years)	20	15.00	25.00	40.00	31.0000	3.72756
Experience (in Years)	20	15.00	3.00	18.00	9.1500	3.71731
Income per annum (Rs.)	20	827000.00	598000.00	1425000.00	957864.60	231898.4
Valid N (list wise)	20					

Source: Primary Data

The table shows that majority of the younger generation participated in the investigation since age group of the respondents was below 40 years. Concerning the experience, there were respondents ranging from 3 years of experience to 18 years with a mean experience of 9 years. With respect to the annual income, majority of the respondents were getting an average annual income of around 10 Lakh rupees.

➔ **SUPPLY CHAIN INFORMATION SYSTEM**

From the survey it was found that majority of the respondents were satisfied with the various parameters of Supply chain information systems in the multinational companies. Rather, it was the enabler, the facilitator, the linkage that connects the various components and partners of the supply chain into an integrated whole. Electronic data interchange, on-board computers, satellite and cellular communication systems, warehouse-management software, enterprise-wide systems solutions, and now the Internet...these are among the information enablers of successful supply-chain management (Zigaris, 2000).

Table 2 – Opinion of Expatriates on Supply Chain information system

Supply Chain Information System Parameters	Highly Satisfied	Satisfied	Neutral	Dissatisfied	Highly Dissatisfied	Total
Infrastructural facilities	4	12	1	2	1	20
Training & development	3	10	2	3	2	20
Mutual respect & cooperation	5	9	1	4	1	20
Communication and information flow	4	10	3	2	1	20

Total	16	41	7	11	5	80
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Source: Primary Data

The benefits of information sharing have been proposed to depend on the predictability of demand. For example, Cachon and Fisher (2000) anticipate that information sharing can have a significantly greater value in situations with unknown demand, for example, early sales of new products or promotion situations. Also Raghunathan (2001) has proposed information sharing to be less beneficial in situations where demand is predictable, and where past demand can be used to form a reasonably accurate demand forecasts. Evans et al. (1993), in turn, maintain that the feeding of actual demand information forward in the supply chain provides greater benefits than lead time reductions.

➔ **SUPPLY CHAIN PLANNING AND COLLABORATION**

Supply chain management is an important domain of business in today’s corporate world that involves co-ordinated efforts of an organisation’s internal planning, manufacturing, and procurement from external suppliers and customers (Mclaren et al., 2002). To ensure timely availability of the products and services, there is a need for integration across and within organisations that demands collaborative efforts (Gimenez and Ventura, 2005). The following table indicates the extent of involvement of expatriates at different managerial positions in the supply chain planning and collaboration of the multinational companies.

Table 3 – Involvement of Expatriates in Supply Chain Planning

Expatriate Position * Involvement in Supply Chain Planning Cross tabulation					
Count					
		Involvement in Supply Chain Planning			Total
		Not involved	To some extent	To a great extent	
Expatriate Position	Entry Level	1	3	2	6
	Middle Level	2	5	3	10
	Top Level	0	1	3	4
Total		3	9	8	20

Source: SPSS output from the collected Primary data

ONE-WAY ANOVA					
Expatriate Position					
	Sum of Squares	d.f.	Mean Square	F	Sig.
Between Groups	0.703	2	0.351	0.657	0.531
Within Groups	9.097	17	0.535		
Total	9.800	19			

Source: SPSS output from the collected Primary data

Decision based on the Sample: Since p value (0.531) $>$ α (0.05), the significant relationship is not established between the two groups. Therefore null hypothesis (H_0) is accepted. Hence there is no significant difference between the expatriate positions and their involvement in supply chain planning.

Supply chain planning and collaboration, represents the use of Information technology for sharing planning-related information such as demand forecasts and other demand information, inventory information, and production capacity information, with the intention of increasing the effectiveness of the supply chain. Companies use different collaborative planning initiatives in supply chain networks depending upon the varying conditions in order to integrate the demand and supply plans, but the reasons for using different types of collaborative practice still lack clarity. If the conditions of applicability of these initiatives are known, then the companies can truly engage in the collaboration of expatriate talents and implement them to develop mechanisms for proactive managerial action.

➔ DELIVERY CO-ORDINATION

In order to benefit from the productivity of logistics and supply chain management, individual firms must develop their own personal action plan. The final step in a business is to develop a roadmap for implementing the proposed action plan for delivery of the goods to the final customer. Key to the success of an agile supply chain is the speed and flexibility with which these activities can be accomplished and the realization that customer needs and customer satisfaction are the very reasons for the network itself to exist. Achieving agility starts with the physical flow of parts, from the point of supply, through the factory, and shipment through agile distribution channels.

Table 4 – Involvement of expatriates in Delivery Co-ordination

Delivery Co-ordination * Involvement Cross tabulation					
Count					
		Involvement			Total
		Cannot Say	Completely involved	Not involved	
Delivery Co-ordination Parameter	Inbound Shipment	4	9	7	20
	Manage Delivery Requirements	1	11	8	20
	Selecting Carriers	2	7	11	20
	Total	7	27	26	60

Source: SPSS output from the collected Primary data

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3.889 ^a	4	.421
Likelihood Ratio	3.871	4	.424
N of Valid Cases	60		

a. 3 cells (33.3%) have expected count less than 5. The minimum expected count is 2.33.

Source: SPSS output from the collected Primary data

Decision based on the Sample: Since p value (0.421) > α (0.05), the significant relationship is not established between the two groups. Therefore null hypothesis (H0) is accepted. That is Expatriate involvement in delivery co-ordination and supply chain performance is independent in the multinational companies.

Expatriates are mainly deployed for knowledge transfer especially in technical areas. Expatriate assignment is valuable because it permits both direct control (e.g., behaviour and outcome monitoring) and indirect control (e.g., the dissemination of corporate culture and norms) of geographically remote and culturally dispersed subsidiaries, where a single control measure might not be sufficient. Home country nationals play a vital role in the delivery co-ordination due to their exposure to the various practices of inbound logistics and carrier selection. Innovation at every stage of supply chain is very essential. Every system has a scope for further

improvement. Supply chain leaders have to believe this and work accordingly to incorporate expatriate talent at different levels of supply chain.

An organised approach to warehousing and distribution is crucial to the continued growth of any business. With emerging technologies and the pressure to deliver a high level of customer service and turnaround of stock, tradition methods of warehousing and distribution are being replaced by those that are more sophisticated, aimed at reducing costs and maintaining that all important competitive factor.

Implementing a carefully structured, cost-effective approach to warehousing and distribution issues now, will inevitably see an organisation through to its long term business objectives and provide tangible financial pay backs. Developing the best strategy required is a complex issue. Here a wide range of parameters needs to be considered; business growth, purchasing, stock levels, customer requirements. The impact of changes over the next 5 to 10 years must be understood in order to assess the available options and develop appropriate solutions.

MANAGERIAL IMPLICATIONS

In the present day context there has been increased interest in supply chain collaboration that promotes inter-company cooperation in different business areas not only in domestic but also international assignments. Our study proposes to maximize the value of expatriates in improving supply chain efficiency of the multinational companies. It provides insights that could be of interest to managers working at different levels of the supply chain echelons.

The study provides a framework for ascertaining the need of expatriates in gaining supply chain momentum of the firms operating in multiple regions. Delivery co-ordination in the entire gamut of supply chain activities can be better managed through the use of communities of practice involving the expatriates of different origin.

An important implication to the managers is that the collaborative effort involves information sharing which helps in joint decision making and joint problem solving. With the passage of time global logistics and supply chain sector is experiencing ever increasing demand from users of all

kinds of services under one roof. As a preparatory step, the present study will contribute to several events of merger and acquisitions and partnering on special terms in the coming days.

CONCLUSION AND SCOPE FOR FUTURE RESEARCH

In today's global environment, surviving and succeeding requires that a company be able to understand and deal effectively with rapidly changing circumstances not only in one country but also in multiple cultures. There are three keys to managing this challenge: a powerful strategic vision, a responsive structure, and internationally skilled people. Since it is people who create visions, design structures, and implement policies and decisions, the ability to develop employees and to use what employees have learned is the core competence organizations require in order to become and to remain competitive today. In this direction, a study was conducted to know the involvement of expatriates in the supply chain integration of 20 selected companies in Bangalore. From the survey it was found that expatriates play a very important role in increasing the supply chain efficiency due to their multifaceted talents of working in many countries. It is important that, the impact of information technology on Supply Chain Management is much larger as it facilitates inter organizational communication and in turn reduces cycle times and develops collaborative work.

We also discovered that multinational companies supply chain needs differ based on their specific business needs and on their level of maturity within the region. One implication of this study is that there is little research into the dynamics of effective utilization and the role of expatriates in the Supply Chain process that is of any relevance to the developing countries in which many expatriates still work. From a supply chain design perspective, our study reports that still the need for expatriates in enhancing their supply chain efficiency requires extensive research. To this end, a model can be worked on the role of expatriates in the supply chain performance of IT industry as further research.

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