

The Supply Chain Management of Maritime Labour and the Role of Manning Agents: Implications and Research Directions

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ABSTRACT

The maritime labour market has gone through tumultuous changes in the last fifty years. The advent of the FOC system in the post WW II era has precipitated in large scale internationalisation of the maritime labour market. The developing economies have successfully integrated in the global maritime labour supply chain as principal suppliers of maritime manpower. At the same time many developed and traditional maritime nations, while consolidating ownership and management interests in shipping, are confronted with the challenge of a shrinking maritime labour pool. In this context the management of the maritime labour supply chain has become a matter of crucial importance. The traditional focus on this issue is essentially macro in nature and is almost exclusively focussed on managing the supply by enhancing the recruitment of nationals. This approach is inappropriate given the nature of the supply and demand of maritime manpower. A more rational approach would be to concentrate on recruitment and retention at the micro level, with the ship operators taking the lead in determining the demand and planning supply. For this the role of the manning agents in developing countries need to be revisited. The paper argues for a new planning model for managing the supply chain of maritime labour. This planning model brings the ship operators, the manning agents and the seafarers in one loop in order to determine the most appropriate strategies for the promotion of optimum recruitment and retention. This framework recognises that the manning agent is an essential part of the ship management team. More importantly, this framework stresses on the human side of seafarers by acknowledging that an effective supply chain management of seafaring labour would not be possible without understanding the need of the seafarers from social, economic and cultural perspectives. This radical shift in supply chain thinking would require streamlining many contentious issues related with the governance structure of the current seafarers supply chain, the role of manning agents, the seafarers perceptions of job and profession and the factors which influence these perceptions. The paper argues for increased research on these issues in order to manage the emerging problem of supply chain management of maritime labour.

1. Introduction

The maritime transport industry has gone through tremendous changes in the last fifty years. New technologies have been introduced to improve operational and management efficiencies while globalisation has given rise to a competitive business environment in the face of

growing demands for maritime transport. The contemporary maritime industry, in spite of a clear trend of consolidation and co-operation among firms, remain highly competitive. Customer service has become a matter of pervasive focus for firms in the industry while specialisation, with respect to service and trades, has created distinct sectors within the industry. In this highly turbulent environment, with the perennial problem of mismatch between supply and demand, cost reduction has become the most sought after strategy in ship management. The development of the open registry system in the post WWII era is an outcome of such concerns.

The history of the development of the open registry system and its economic rationale have been well covered in literature. Among other economic and financial benefits, manning flexibility is generally accepted to be one of the key features of this system. The trends of flagging out and the expansion of the open registry fleet in the last four decades have contributed to a fundamental change in the structure of the maritime transport industry. The governance structure of the industry has become fragmented with traditional maritime nations in developed countries retaining the control on ownership and commercial management while shipboard labour is increasingly being supplied by developing countries through a multi tiered network of third party ship management companies and manning agents.

At a time when shipping growth trend remains strong, the adequacy of the future supply of maritime labour has become a issue of serious concern for the industry. The traditional maritime nations, major suppliers of officers and engineers in the past, have been suffering from an ageing and shrinking maritime labour pool. The adequacy of the supply of officers from developing countries remain unclear. Questions have been raised on the adequacy of the number of officers for manning the fleet of the future and the availability of shore based professionals with maritime expertise. Concerns have also been raised on the quality of seafarers, of both officers and ratings, coming from developing countries (Li and Wonham 1999). These concerns are valid and given the fragmented nature of the industry with a very nebulous governance structure, these represent a formidable challenge for the industry.

The paper revisits the industry's perception of the emerging manpower situation and the current governance structure. It aims to address the inadequacies of the current approach for the effective management of the maritime labour supply chain. In this regard the paper argues the case for the inclusion of the seafarer in any manpower planning model. The arguments highlight the role of the manning agent in the global maritime labour supply chain and presents an alternative view for a more effective management of future supplies of maritime manpower. These arguments are based on broad generic concepts of supply chain management. The paper, at the end, aims to stimulate research for identifying relevant criteria for developing an appropriate governance and operational model for manning agents which would help the maritime industry for meeting its future maritime manpower problem.

2. Supply Chain Management of Maritime Labour: Literature Survey

This interest in the supply chain of maritime manpower comes from significant changes in the maritime transport industry and the maritime labour market. These include, among others, the trend of flagging out and the emergence of Flag of Convenience or Open Registry fleet (Alderton and Winchester 2001), the trend of outsourcing of management functions (Mitroussi 2003) and the increasing reliance on developing countries for supplying maritime labour for the world fleet (Couper 2000, Lane 2001). The governance of the maritime labour

supply chain has become fragmented for a large segment of the industry that relies on maritime labour from developing countries (Couper 2000). The emergence of a global, albeit fragmented, maritime labour market, coupled with a diminishing pool of maritime labour in advanced maritime nations, has raised interests in critical supply chain issues for the maritime industry. Several studies have been initiated on maritime labour markets, the ISF and BIMCO survey on maritime manpower in 1995 and 2000 being the most significant in this regard (BIMCO/ISF 2000). These reports reveal the extent of internationalisation of the maritime labour markets and, with a clear indication of imbalance between supply and demand, provide a genuine rationale for the industry for taking interest in the supply chain management of maritime labour.

Literature dealing with globalisation and its impacts on the maritime labour markets often refer to manning agents but there is very little literature which deals comprehensively with the role of manning agents in the contemporary maritime labour markets. Couper (2000) and Lane (2001) acknowledges that manning agents have become indispensable in the new supply chain model of maritime labour. It has been stated that these firms provide valuable services (ILO 2002). The literature, however, raises strong concerns on the impacts of this new supply chain structure on critical human resource issues. These concerns, if justified, will have strong implications for the performance of the ship operators and for the sustainability of the industry. It has been argued that the current practice of seafarers employment, through manning agents, create an working environment which promotes insecurity, stress and poor motivation among seafarers (Couper 2000). These factors not only have strong implications for crew output and performance, these also contributes to a relatively high crew turnover (UK P&I 1996). The quality aspects of the manning agents services have also come under scrutiny. This is a legitimate concern given the increasing reliance placed on the manning agents for selecting and recruiting a quality crew with authentic certification, identification and qualification. (ILO 2002). Lane and Pillsbury (2001), discussing the proliferation of fraudulent certificates among seafarers from developing countries, also raise the question of involvement of the manning agents in the employment of seafarers with these certificates. It has been alleged that a loose regulatory framework in source countries, coupled with poor industry governance, has contributed to abusive practices by manning agents leading to substandard performance and often gross abuse of seafarers rights (Couper 2000, ILO 2002). The manning agents have been allegedly involved, in collusion with unscrupulous owners, in the employment of seafarers on substandard ships (ILO 2002) and in the abandonment of seafarers in foreign ports (Moran 1996).

The developing countries, the emerging supplier nations, have attracted considerable attention in relation to maritime labour markets in recent years. The concerns have been mainly centred on STCW and ISM compliance related issues. From the perspective of developing economies, the focus has been mainly on compliance with international regulations. In spite of the importance of the seafaring labour in many developing countries, a strategic focus on management has been lacking. Lane (2002) says developing countries have focussed on regulatory compliance and en masse production of seafarers for the worlds' shipping market. This has resulted in intense competition among supplier nations (Lane 2002). A parallel development of this has been the rise of crew manning agents in the labour supplying countries. The Philippines, a major maritime labour supplying nation, alone has over 300 manning agents registered with the ministry (Couper 2000).

Supply chain management is primarily concerned with matching supply with demand (Chopra and Meindl 2001). The business literature on supply chain management is focussed on

strategies for overall cost reduction and/or value enhancement of a firm's product. The key to effective supply chain management is integration of business processes between firms which providing input into the product as it travels from the raw material stage to the finished product (Simchi-Levi et al. 2003). Collaboration and co-operation has become the central theme in supply chain management. Christopher, for that reason, calls supply chain management as a the 'management of relationship'(Christopher 1998). The contemporary business literature provides numerous examples of firms building competitive advantage based on strategic partnership with suppliers. (Burt et al. 2003). Supply chain literature, however, is exclusively focussed on business firms engaged in the manufacturing, marketing and distribution of products or services.

The analytical techniques and the general business knowledge residing within the domain of supply chain management has not been applied in any case concerned with the management of human resource. And this is understandably so. The difficulties in applying generic business concepts for the management of the supply and demand of a 'thinking social' element is appreciable. There have been several attempts in the recent past to provide an analytical framework for estimating the supply and demand of maritime labour in various economies. These discussions have tended to focus on the implications of a dwindling national seafarer pool on the national fleet of Taiwan (Chin et al. 2001), Holland (Waals & Veenstra 2002), Greece (Sambracos & Tsiaparikou 2001), and Malaysia (Osnin 2001) and on the adequacy of supply of personnel with seafaring background for shore based employment (Gardner and Pettit 1999, Gardner et al. 2001, AMSA 2002, OECD 2003). These concerns have been justified in the light of domestic supply situations in countries with substantial interests in shipping. These discussions have focussed on the projected demand for seafarers and the current supply situation; and in most cases the argument has been for national shipping policies which support increased recruitment of seafarers. These attempts, despite their limitations, can rightfully be regarded as significant contributions towards our understanding of supply chain management issues concerning maritime manpower.

3. Supply Chain Management of Maritime Manpower: The Business Approach

The maritime industry needs to strategically approach the emerging problem of supply and demand imbalance in the maritime labour market and supply chain management can offer valuable insight into the problem. The challenge lies in the fragmented nature of the labour market, the unclear governance structure, conflicting interests of the different stake holders, the complex nature of the supply and demand; the interplay of complex socio-economic and cultural forces in the supply and demand and the difficulties in the application of human resource strategies for this industry. The logical direction in this analysis would entail a discussion on the current structure of the global supply chain and the governance structure, a look into the current practices for matching supply chain balance and to identify the inconsistencies in the approach with respect to the state of the industry. And finally this will look into the probabilities of applying supply chain management knowledge for effective management of maritime labour.

This concept of achieving critical supply chain balance is important from several perspectives. Firstly, the supply chain must be capable of supply enough seafarers, with appropriate qualification and experience, to man the diverse fleet at point of time. Furthermore, the number of seafarers at any specific time must be sufficiently large to allow

for career progression at sea and ashore, allow for unaccountable wastages, planned retirement. Ideally this need to be done with a minimum allowable surplus in order to reduce wastage in training and human resource development and to avoid the negative market turbulence associated with an unemployed workforce. In this context, the conventional supply chain management approach which focuses on the firm to achieve its strategic supply chain goal of matching supply and demand is more suitable. This requires ship operators, the lead or focal firms, to increase their participation in the selection, recruitment, training, mentoring and supporting the seafarer through his/her working life by creating a more collaborative relationship with the manning agents. The manning agents, in this model, become partners of the operators by transmitting the value of the operators to the seafarers by practicing state of the art human resource management and development techniques.

3.1 Maritime Labour Supply Chain and Governance

The modalities through which a seafarer may find employment determine the supply chain of maritime labour. The arrangements through which a seafarer may find employment varies as do the management structure of the ship owning interests. On a global scale, the ship owning and operating interests may remain merged within a single enterprise or be segregated with management functions outsourced to a single or a number of firms. Similarly, the seafarer may be directly employed by the owner/manager or by the manager or through a manning agent in source country. The UK P&I Clubs report on manning indicates that all these different practices of management and employment can be observed in today's shipping (UK P&I 1996). Fig. 1 below shows these different modalities and this in simple form is indicative of the different configuration the supply chain.

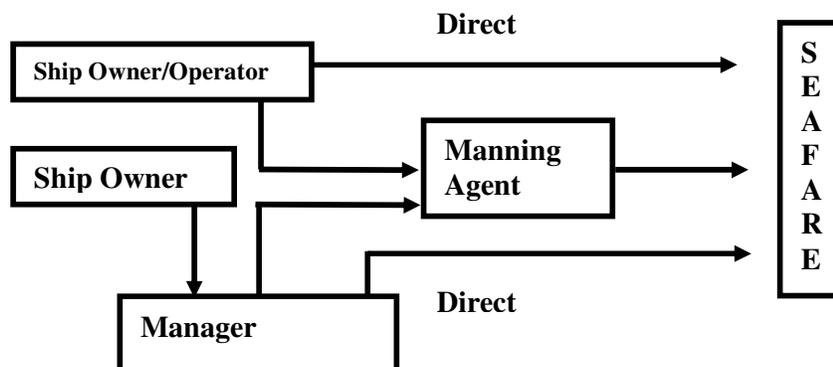


Figure 1: Maritime labour supply chain: Different modalities

The supply chains employing seafarers from developing countries invariably involve the manning agent. These particular configurations are important as these have serious implications for the management of the supply chain. The fragmented nature of management and governance is also evident as independent firms provide valuable input into the process of manpower supply and management. Though there are indications that manning agents in many developing countries have moved away from being simple a supplier of maritime manpower to a provider of higher value added services, such as training, recruitment, travel management, payroll management etc. (ILO 2002), the prevalent governance structure remains unclear. There are doubts about the existence of a

clearly defined responsibility and accountability regime which is strategically aimed at managing the long term strategic management objective of the lead firm.

3.2 The Nature of Supply and Demand

A discussion on the nature of supply and demand is very relevant in the context of the anticipated shortfall in supply of officers and ratings (if we are concerned about quality). Most discussion till date has been from a macro perspectives and driven towards recruitment as a means of matching supply with demand. The idea of matching supply and demand of maritime manpower is inherently challenging. While the estimation of demand, based on future fleet size and regulatory requirements for manning, is relatively straight forwards, the question of supply is much more complex. The supply must not only meet the demand on an aggregate basis, but must meet specific demands for specific ranks and for specific vessel types. Any future plan must be able to account for promotions, retirements and wastage. The industry do not have any specific rule for promotion and retirement, nor does it have input on the concept of wastage. This latter aspect remains a major uncontrollable source of uncertainty in the future supply of manpower. The discussions of Waals & Veenstra (2002), Chin et al. (2001) and Sambracos & Tsiaparikou (2001) provide valuable insight into the problems of estimating future supply of maritime manpower

3.3 Managing the Maritime Labour Supply Chain: A Critique

The traditional approach for the management of this problem, based on macro views, belies the reality of the nature of the maritime transport industry in general and the maritime labour market in particular. A competitive maritime labour market will continue to be dominated by seafarers from developing countries. So, realistically, the industry should be focused on training, recruitment and retention of seafarers from developing countries. Any recruitment drive in major maritime nations is unlikely, given the economic and social expectations of young people in advanced countries, to be successful. Furthermore, the need for developing seafarers for a career on specific vessel types, a growing trend, make a macro approach with aggregate demand and supply unworkable. It is important to stress that current discussions focus solely on recruitment and the need for retention of seafarers has not attracted any attention. Given that the international labour supply chain is in crisis with respect to adequacy of supply, retention should be given a better priority. For a career at sea, considerable investments in training and education are made at various stages by various parties (Leggate and McConville 2002), and a failure to retain this trained manpower represents a net loss for individuals and the industry. Retention of seafarers would not only reduce wastage in training and education, it also would contribute towards a stable work force.

The failure of retaining seafarers in the profession has been termed as 'wastage' and it has been generally agreed that the unknown element of 'wastage' of seafarers constitute a major uncertainty in manpower planning (Waals & Veestra 2002, Chin et al. 2001, Sambracos & Tsiaparikou 2001). In the context of maritime labour market, the extent and causes of wastage remain unexplored. In their discussions on Greek seafarers, Sambracos & Tsiaparikou (2001) state that a variety of familial and social factors contribute towards wastage. The traditional approach to seafarers supply chain management ignores the

influence of social factors on seafarers decisions to remain within the industry. Even though SIRC has carried out an impressive number of studies on the social aspects of seafaring and their families (Thomas et al. 2002), nothing has been done to establish the relationship between the attractiveness of a seafaring profession, wastage and the broader social and economic environment within which the seafarer lives and works. The traditional approach of supply chain management, in this way, ignores the most vital element of the seafarers supply chain- the seafarer.

3.4 The Business Model for Supply Chain Management: The Role of the Manning Agent

The business model for supply chain management of maritime labour need to shift away from the macro model of demand and supply management. The ship operators, like firms in other industries, need to be given the leadership in managing their strategic supply chain needs through a network of suppliers. This would mean a more tighter and collaborative governance structure of the maritime labour supply chain. In this context, the generic supply chain models based on collaboration and co-operation between independent firms, for the creation of value, should become the model for developing strategic partnership between ship operators and manning agents. The aim of the partnership would be to develop and retain a strategic human resource pool for ship operators with minimum wastage. This would require understanding of complex social issues related with employment and career progression, family commitments, security and general happiness with the job.

The key to retention of seafarers, along with other uncontrollable social and economic environmental factors, is positive perception of profession and the job. Human resource literature acknowledges the relationship between motivation and work performance (Ritchie and Martin 1999). Given the current contractual and irregular nature of employment of seafarers, developing a motivated work force, absolutely essential for minimising wastage and improving quality, is challenging. The perception of his/her profession to a seafarer, is formed by a multitude of factors. These include, along with remuneration and quality of work life, experience and interaction with the manning agent at various stages of his/her employment. (Fig. 2). Given the general negative feedback regarding the practices of manning agents (Couper 2000, ILO 2002, Lane 2001), it can be argued that manning agents, in their current form, contribute significantly towards wastage of maritime manpower.

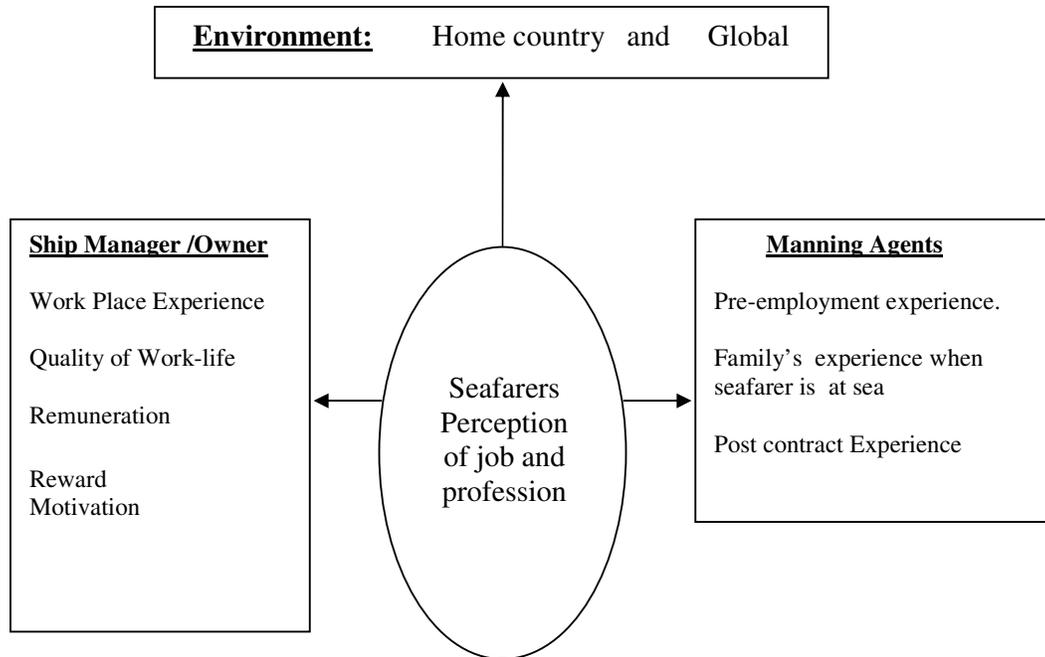


Figure 2: The Seafarers perception of job and profession

The role of manning agents in this context must develop to support the strategic human resource management of the lead firm. The usual transactional relationship between the ship operator and the manning agent need to give way to a new governance structure which makes the manning agents responsible for the manpower development with focus not only on recruitment and training but also on positive actions which lead to increased motivation, professional satisfaction and retention. This requires the inclusion of the seafarer in the planning process and aligning their personal aspirations with those of the employers. Contemporary human resource thinking supports this blending of quantitative with qualitative approaches for human resource planning (Craft 1980).

The shipping operators, looking for continued supply of quality seafarers, need to develop policies which recognise the importance of social factors in the long term supply of maritime labour. The planning and development process involves both ship operators and manning agents who jointly work together to provide the seafarer with a satisfactory work and life experience. The ship operators, as the lead firms, oversee the overall relationships in order to boost recruitment and to retain existing seafarers. The following figure depicts the conceptual framework of the new business model which brings the manning agent and the seafarer in the maritime labour supply chain management loop.

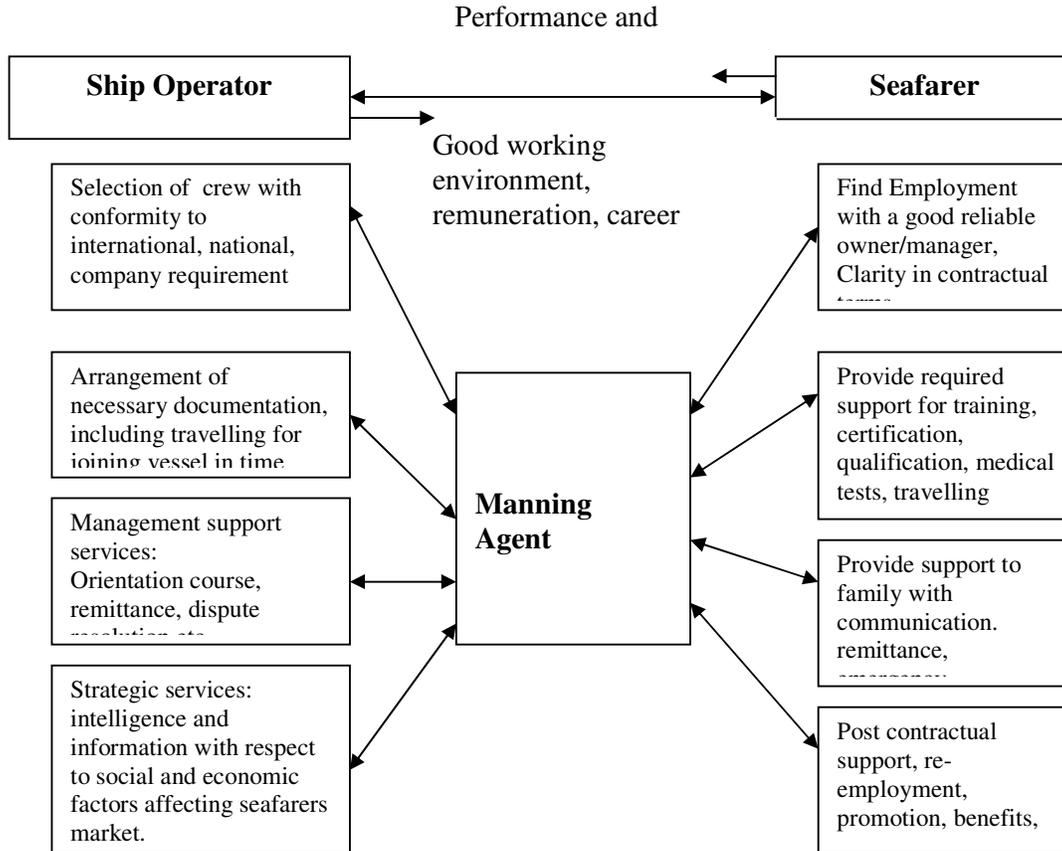


Figure 3: The role of the manning agent

3.5 Developing Countries, Manning Agents and Governance Issues

Developing countries, as suppliers of maritime manpower, need to critically review their policy regarding maritime manpower strategies and governance of manning agents. The general perception, in this regard, is suggestive of a weakness in the governance regime. This weakness is manifest in the stated inefficiencies of the current system, evident by the concerns coming from both shipping interests and seafarers organisations. At present the manning agents are mostly regulated by home countries. There are numerous ILO conventions dealing with maritime labour standards, social welfare of seafarers and manning agents. These, however, remain largely unratified (Couper 2000, ILO 2002). The home country authority, in most circumstances, exert regulatory control on manning agents based on national legislation. The ship operators, on the other hand exert commercial control, most often based on a strict contractual agreement. The concerns of conformity of the manning agents performance with international, flag state and corporate requirements are in many cases met by the process oriented ISO based standards.

The new planning model would see the developing country governments as mere facilitators, working in collaboration with the manning agents for creating the right

environment for recruiting and retaining an optimum maritime manpower base for employment on foreign vessels. While national authorities will be concerned with minimum regulatory standards for firms operating within their jurisdiction, business governance of the supply chain would be based on long term collaboration between the lead firms and the manning agents.

4. The Role of Manning Agents – Research Direction

The arguments raised by the preceding sections need serious attention and should stimulate extensive research on social and economic issues concerning seafarers. The research need to explore the state of the seafarer supply markets with attention on the seafarers' perception of profession and the extent and reasons of 'wastage' in each market. Along with economic and social factors, cultural influence on these parameters need to be assessed. The role of the manning agents in this context will provide valuable insight into the problem with identification of positive and negative factors attributable to the manning agents. Research would also be needed to identify ship operators which are relatively more successful in managing their seafaring manpower requirements. The question of how does a ship operator become an "Employer of Choice" need to be answered and the role of the manning agent in this achievement need to be identified. And lastly, the industry needs to establish how the maritime industry can develop a successful model of collaboration between a ship operator and manning agents supplying contract seafarers. The success of the model will need to be measured against motivation and loyalty oriented outcome.

These questions are vital and their answers will greatly enhance our understanding of complex supply chain issues surrounding the maritime labour market.

5. Conclusions

The current approach for managing supply chain management of maritime labour is flawed. The macro view concerned with managing demand by boosting recruitment, often in the context of national shipping policies, is inappropriate in the context of the nature of the global fleet and the fragmented nature of the maritime labour market. A more appropriate and economically sensible approach is to focus both on recruitment and retention. This requires radical upgrading of the maritime labour supply chain by bringing the manning agents within a tighter and a more collaborative governance structure. This type of collaboration between the lead firm and its supplier is at present a widely accepted model of relationship. The rationale for this is the concern for the adverse social factors inherent in contemporary labour supply chains and the way it encourages waste. This at the end means bringing the seafarer within the planning loop. Unfortunately, the industry lacks knowledge required for making this critical transition and extensive research, focussed on the social needs of the seafarers, is required. The aim of the research should be to understand the dynamics of the seafarers labour markets with seafarers view in perspective. The knowledge at the end can allow an effective policy to be formulated, jointly by the ship operator and the manning agent, to enhance job satisfaction, retention and professional longevity of the seafarer. These at the end will contribute positively towards achieving balance between supply and demand.

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