

Improving human resource management in logistics

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Abbreviations used :

IR = industrial relations ; SCM = supply chain management

SC = supply chain ; HRM = human resource management

SUMMARY

This paper concentrates on the roles, skills and critical success factors for logistics professionals, with emphasis on the situation in the UK. It reviews previous work in this field, and then reports on the findings of work recently undertaken at the University of Huddersfield, UK, using a variety of methodologies previously used for similar research work in other sectors of management such as retail or marketing. A wide range of skills are identified as important in logistics management. A contrast is made between those skills required for operational management roles and those more appropriate in planning/analysis roles. The need to gain experience in both of these roles along the career path in logistics, and the implications of this for skills acquisition and development, is explained. Finally, plans for further research are set out.

INTRODUCTION AND BACKGROUND TO THE RESEARCH

In the UK and elsewhere, logistics management is an increasing area of employment opportunity across a wide range of industries. It offers rising salaries, varied and interesting work and great scope

for personal and career advancement. Many areas of logistics - particularly transport and warehouse operations - remain highly labour intensive. This has major implications for human resourcing, not only of operatives but also for management and planning roles. For these and other reasons, successful human resource management (HRM) is now fundamentally important to successful logistics.

It is the area of management skills that is the key focus of this particular paper, which discusses research currently under way at the University of Huddersfield to evaluate the role, skills and critical success factors for UK logistics professionals. The HRM element is proving to be a fundamental part of this research.

The ongoing and final outcomes of this research are of great relevance and have implications for many groups including :

- human resource and personnel managers for their strategies, recruitment and training,
- senior management for benchmarking their human resources,
- individuals for their own personal development,
- management and recruitment consultants for advising clients and candidates,
- professional institutes for developing their programmes,
- educators and trainers for course and staff development,
- students choosing courses and modules to study,
- careers teachers and advisers for counselling their clients.

This paper will consider :

- why the research is being undertaken,
- its benefits to various groups, including human resource managers,
- results obtained so far from a literature review, group discussions with current and future logisticians and interviews with logistics recruitment consultants, and
- the future direction of the research including a UK based industry wide questionnaire.

FINDINGS FROM RECENT LITERATURE

In Europe very little in-depth research about HRM in logistics and distribution has been undertaken. The recent works of Pfohl (1993) and Lennon & Zweers (1994) suggest that educated logisticians play

an important role in the successful implementation of logistics in companies. Pfohl set out job profiles for logistics and discussed the relevant skill, knowledge and qualification requirements. To achieve this he reviewed the literature, which included analyses of recruitment advertisements and surveys, and also undertook further research including new surveys and a Delphi study. On the basis of this work he outlined several job profiles in purchasing, production, storage, forwarding, logistics, sales and administration, but no breakdown of the type of companies involved in his research was included.

His findings summarised the main logistics activity fields as including :

- production control and planning,
- operations scheduling,
- organisation,
- distribution,
- counselling,
- planning,
- management information systems,
- purchasing,
- materials management,
- warehousing/inventory management,
- transport management.

Pfohl also listed 25 skill, knowledge and qualification requirements for logistics. The top 15 of these were :

- 1 - information technology (IT),
- 2 - finance,
- 3 - distribution systems,
- 4 - material supply planning,
- 5 - order processing systems,
- 6 - warehousing techniques,
- 7 - forwarding,
- 8 - materials requirements planning (MRP),
- 9 - transport planning,
- 10 - personnel management and development,
- 11 - sales and marketing,
- 12 - materials flow methods,
- 13 - warehouse planning,
- 14 - languages,
- 15 - general management skills.

Lennon & Zweers surveyed senior logistics executives, based on 22 personal interviews and 22 postal questionnaires. Of the 44 companies involved, 22 were UK based, 10 Belgian, 7 Dutch, 3 Swiss, 1 German and 1 Swedish. The majority (almost 60 %) were manufacturers. The remainder were retailers and specialist distribution companies. Lennon & Zweers were interested in the role, skills and experiences of senior logistics executives. Their research outlined the logisticians' prime responsibility fields as :

- outbound and inbound transportation,
- warehousing,
- distribution depots,
- returned goods,
- finished goods inventory management,
- production planning,
- customer order processing.

They suggested that as logistics has become increasingly important as a route to competitive advantage, so the role of the logistics executive has become more important, and they went on to list 13 skills and personal factors highlighted as being important by the 44 senior executives surveyed. These are shown below in order of importance :

- 1 - ability to manage change,
- 2 - vision,
- 3 - communication,
- 4 - leadership,
- 5 - strategic approach,
- 6 - integrating supply chain,
- 7 - planning,
- 8 - track record/experience,
- 9 - adaptability,
- 10 - luck,
- 11 - creativeness,
- 12 - IT experience,
- 13 - hard working.

RESEARCH AT THE UNIVERSITY OF HUDDERSFIELD

Research currently under way at the University of Huddersfield builds on such previous research, and uses a variety of methods to investigate the role, skills and personality characteristics of successful logistics and distribution managers.

GROUP DISCUSSIONS

Group discussions were held with eight groups of existing and future logistics and distribution professionals. This method followed that used by O'Connor & Davies (1989) with students and existing managers to assess the interpersonal skills required for careers in retailing. The groups surveyed at Huddersfield involved students on part-time (vocational) and full-time (undergraduate) courses in transport and distribution. 74 skill and knowledge factors emerged from this work, and the most frequently occurring of these are shown in Figure 1. The most important factor – mentioned by all groups – was communication skills.

Figure 1 : Most important skills from the 8 group discussions

Skills	Times occurring
Communication - at all levels - up, down and sideways	8
Leadership	7
Educated in distribution - degree, professional qualifications	6
Adaptable/versatile/open to new ideas/flexible	6
Job knowledge and experience	6
Morale builder/motivator	6
Organisational skills/well organised	6
People management	6
Business knowledge/understanding and industry awareness	5
IT literate, awareness and knowledge	5
Supply chain and distribution understanding	5
Delegation	5
Enthusiastic/hard worker	5
Foresight/forward planning/ logical thinker	5
Personal integrity/ethics/honesty	5
Social skills/etiquette	5
Understanding people/listener	5

GRADUATE CAREERS GUIDES : CONTENTS ANALYSIS

Another methodology has been to undertake contents analysis of graduate careers guides in order to analyse the skill and knowledge requirements of graduates entering the distribution industry. This follows Middleton & Long (1990) who used this method to assess the critical skill issues involved in education and training for careers in marketing. In the Huddersfield research, three general graduate careers guides were reviewed. These were :

- AGCAS 1993, which provides specific information on distribution careers and profiles of graduates who have been successful in distribution.

- Roget 1992, which included entries for companies taking graduates into distribution. It listed 42 retailers and manufacturers requiring such graduates. Of these 17 listed the specific skills and knowledge they required. Nineteen distribution companies were listed, of these seven specified the skills and knowledge they required.

- Prospects 94, a similar publication to Roget 1992. It listed 26 retailers and manufacturers requiring graduates for distribution. Thirteen of these specified the skills and knowledge required. Of the eight distribution companies listed, five gave the skills and knowledge they required.

Ten careers booklets for individual companies were also studied. Overall 58 different skill and knowledge requirements were extracted. The aggregated results are shown in Figure 2. The 'number of times occurring' shows how many times each factor was mentioned, and gives a good indication of importance.

Figure 2 : Most important skills and knowledge from the careers guides

Skills	Times occurring
Lead and influence others	30
Planning ahead	24
Motivated	24
Communication with people at all levels	24
Take early responsibility	22
Drive and energy	21
Interpersonal skills	20
Business awareness	17
Problem solving	16
Geographically mobile	16
Numerate	15
Confidence	15
Learn new skills quickly and use them	14
Academic record	14

Figure 2 indicates that for graduates entering distribution companies, retailers and manufacturers, general business skills and particularly management and personal skills are important. It is interesting that 'Understanding the principles of distribution' occurred only nine times, and was in 21st position on the list.

INTERVIEWS WITH RECRUITMENT CONSULTANTS

Recruitment consultants who specialise in finding logistics personnel on behalf of individual companies provide another important source of information on the role of logistics managers and the skills and personality characteristics required for such positions. Ten of the main UK distribution related recruitment consultants were interviewed. The interview schedule was modified after the two initial pilot interviews, leaving eight useable interviews for analysis.

All eight recruitment consultants saw logistics and distribution being about getting the right quantity of goods to the right place, at the right time, in the right quality at the right cost. One consultant estimated that there are about 23000 distribution professionals in the UK. Importantly he also introduced a distinction between two different roles, suggesting that around 80 % of distribution management time is spent on managing people (either in transport, warehousing, inventory or systems environments, or dealing with customers and personnel in other functions such as marketing or production). The other 20 % of time is spent on planning and analysis. This is a key distinction that the rest of this research programme will attempt to address.

Figure 3 summarises the responses by the consultants to a series of questions on the skills and personality required to become a successful distribution manager. The number of times occurring represents the number of the interviewees who stated each skill factor.

Figure 3 : Skills and personal factors for distribution management

Skills	Times occurring
Planning and development	8
People manager and developer	8
Look right - imposing, presence, smart, personable, professional	8
Influence other people	8
Financial - control management accounts, budgets, costs, cash flow, profit and loss	8
Communication - upwards, downwards and sideways to customers and departments	7
Strong but fair	7
IT and systems literate	7
Right experience	6
Positive	6
Numerate	6
Work under pressure	5
Negotiating - unions, customers, suppliers	5
Interpersonal	5
Integrity	5
Graduate calibre	5
Determination	5

Business skills such as planning and finance were seen as important, as were general and personal skills including managing people, communication and appearance. Although all the recruitment consultants stated they would not normally recruit people into distribution without experience, distribution related experience and skills are not at the top of the list.

JOB ADVERTISEMENTS : CONTENTS ANALYSIS

Contents analysis of job advertisements, as undertaken by Middleton & Long (1990) in their study of the critical skill issues in education and training for careers in marketing, offers a way of investigating the key distinction discussed earlier - the distinction between the skills required for operational management and those needed in planning and analysis roles. Focus (now Logistics Focus), the Journal of the Institute of Logistics and Distribution Management (now Institute of Logistics) is acknowledged by the industry as the main place where logistics and distribution jobs are advertised in the UK. All the jobs advertised in the ten issues from May 1992 to June 1993 were evaluated. Analysis was undertaken on this information to :

- assess the range of jobs covered,
- gain an overall skills and knowledge list from all the advertisements,
- summarise the role of the logistics and distribution professional,
- distinguish where possible between operational and planning roles.

The 235 jobs shown in Figure 4 include advertisements placed by the recruitment consultants, but exclude jobs in Eastern Europe, those where no role or skills were given, production roles and marketing jobs. 24 different job categories were identified, though there is some overlap, and a problem that the same title can mean several different things. However, Figure 4 attempts to quantify the number of each of these jobs and also the type of organisation recruiting.

Figure 4 : Job types by employer

Title	Third Party	Retail	Manufacturer	Wholesaler/ distributor	Not stated	Total
Contract manager	12					12
General manager	10	2				12
Business development manager	14					14
Analyst	6	2	3	1	3	15
Sales manager	5					5
Operations manager	9	5	6		1	21
Distribution manager	9	7	5	3	2	26
Engineering manager					2	2
Warehouse (depot) manager	10	2	4		4	20
Transport manager	6	1	2		1	10
Inventory controller	1	1		2	1	5
Shift manager	7	4	2	1		14
Graduate trainee		1			3	4
Supervisor	2	2				4
Materials (supply) manager	1	3	1	1	2	8
Project manager	14	2	4	1	4	25
Consultant					4	4
Customer service manager			1			1
Logistics (SC) manager	1	2	2	1	1	7
Logistics director	1		2	1		4
IT systems	2	1			2	5
Returns manager					1	1
Operations planner	6		1			7
Distribution director	2		2			4
Managing director	5					5
TOTAL	123	35	35	11	31	235

Figure 4 shows that the main job types featured in the advertisements included projects manager, business development manager and analyst as well as distribution manager, operations manager, warehouse (depot) manager and shift manager. This underlines the significance of the distinction between planning and operational management, and the emphasis now being placed by many companies on planning and strategy. Another point to note is that over half of the jobs were offered by external logistics and distribution

providers, in line with the recent trend of many companies to out-source parts of their logistics.

With regard to the contrasting roles of planning and operational management, Figure 5 summarises the main statements in the job advertisements relating to the role of the distribution manager and project manager, two of the most common job types shown in Figure 4.

Figure 5 : The role of the distribution manager and project manager

Distribution Manager

- Manage distribution, liaison with suppliers, shops and personnel.
- Manage distribution people, facilities and budgets for the warehouse and fleet.
- Plan/implement future strategy.
- Responsible for all aspects of inventory, warehousing, distribution and customer service.

Project Manager

- Analysing data, reviewing options and recommending solutions.
- Planning layout, design, implementation and performance development of existing and future operations.
- Logistics and supply chain projects and operational support.
- Planning and evaluative project work for the warehouse and transport.

The role of distribution manager is very largely an operational role, with an emphasis on day to day management and getting things done through people and communication. This contrasts very strongly with the role of project manager, which involves much more planning and analysis and IT work. Those interested in a career in logistics and distribution should be made aware of such different skill requirements and opportunities. Overall the majority of the roles shown in Figure 4 do appear to have an operational bias, but even the operational roles involve some degree of planning of future strategy : hence the need to be able to plan ahead is important.

Overall, 235 job advertisements contained 52 different skills and knowledge factors. The top 15 of these are set out in Figure 6. Distribution, general business and management skills all emerge as important factors. Despite the views of the recruitment consultants expressed earlier, the need for specific distribution related skills and knowledge emerged more strongly than from the group discussions and the analysis of the graduate careers guides. Experience in distribution was cited as relevant in 230 out of 235 cases - far more often than any other single factor.

Figure 6 : The 15 most important skills and knowledge shown in the job advertisements

Skills	Times occurring
Experience in distribution	230
Graduate calibre	100
Warehouse design, scheduling and systems	62
Age	59
People manager	46
Communication, written and verbal, at all levels	46
Motivated	37
Computer literate	37
Interpersonal	36
Designing and implementing logistics solutions	34
Systems driven warehouse and stock management systems	30
Commercial flair	27
Analytical	27
IR and discipline in unionised environment	25
Customer service and client orientated	24

Returning once again to the key distinction between operational management and planning/analysis roles, interpersonal skills, industrial relations skills, the ability to manage people generally and experience with particular systems can be expected to be especially relevant for operational management roles. Communication skills, computer literacy, analytical skills and the ability to design solutions are perhaps more likely to be associated with planning and analysis roles.

COMPARISON OF FINDINGS

In Figure 7 the main skills and knowledge factors to emerge from the paper overall are compared. The main factors identified in the earlier papers by Pfohl and Lennon & Zweers are summarised in the first two columns. The results from the various methodologies used in the Huddersfield research are shown in the four columns on the right hand side.

Pfohl's logistics management activity fields and Lennon & Zweer's prime responsibility fields compare quite closely with the Huddersfield findings from the job advertisements and the interviews. One notable difference is that Pfohl's findings show logistics as being more production planning and purchasing based. This may be a result of the samples used in the research or it may reflect the fact that logistics is more production and technology orientated in many German organisations.

In the Huddersfield analysis - the four columns on the right hand side - it is noteworthy that the only factors listed in all four columns are communication, planning and design, interpersonal skills and education. Experience, people management, self

motivation and IT literacy feature in three of the four columns and must also be regarded as important.

When comparing the Huddersfield findings with those of Pfohl and Lennon & Zweers, it is interesting to note that education is mentioned in neither of the earlier studies, despite the fact that Pfohl and Zweers were both involved in education at the time of their respective research projects.

Overall Pfohl's findings appear to be much more logistics and distribution specific than those of Lennon & Zweers and the Huddersfield research, which are orientated more towards general and interpersonal skills. Given the increasing internationalisation of logistics, it is also interesting to note that importance is given to languages only in Pfohl's skills and knowledge list.

Figure 7: Matrix comparing the results from various studies

Pfohl	Lennon & Zweers	Group discussions	Careers guides	Job advertisements	Interviews
IT literate	change agent	communication	leadership	right experience	planning
Finance	vision	leadership	planning	graduate calibre	appearance
Systems	communication	educated	motivated	W/h design & operation	manage people
Supply planning	leader	adaptable	communication	people manager	influencer
Order processing	strategic	experience	responsible	communication	financial
W/h techniques	integrates SCM	motivator	drive & energy	motivated	communication
Forwarding	planning	organisational	interpersonal	IT literate	strong but fair
MRP	experience	people manager	business aware	interpersonal	IT literate
Transport planning	adaptable	business aware	problem solving	distribution design	experience
People manager	lucky	IT literate	mobile	W/h systems	positive
Sales & marketing	creative	SCM knowledge	numerate	commercial flair	numerate
Materials flow	IT literate	motivated	confident	analytical	calm
W/h planning	hard worker	planning	quick learner	industrial relations	negotiating
Languages	—	integrity	academic record	customer service	interpersonal
Management	—	interpersonal	team worker	change agent	integrity
Procurement	—	etiquette	extra curricular	business development	graduate
Product'n planning	—	listener	practical	determined	determined

(w/h = warehouse)

CONCLUSIONS AND DIRECTIONS FOR FURTHER RESEARCH

This paper has summarised the findings from a range of sources on the typical roles and skills involved in a career in logistics and distribution. There are some similarities between the findings of Pfohl, Lennon & Zweers and the Huddersfield research, but the differences that exist are important, especially given the current rapid expansion and internationalisation of logistics. Educators and trainers, professional institutes, senior management, individual managers, personnel and human resource managers, management and recruitment consultants and students should regularly review and update their own awareness of these issues, in order to understand the changing human resource requirements of the logistics and distribution industry.

In the UK the role of the logistics and distribution professional appears to remain very much an operational one. However, longer term planning and strategy are clearly becoming more important. This means that communication and interpersonal skills, analysis skills, distribution planning, numeracy and

IT skills are important now and will become even more significant in the future. In Germany the role of the logistics professional is already seen as more technical, covering areas such as production scheduling and purchasing.

The key issue that research has not addressed properly to date is the distinction between operational management roles and planning/analysis roles. In the future, successful career progression to senior logistics executive level is likely to require experience in both these areas along the way. Examination of the career progression of Huddersfield transport and distribution graduates shows that after initial training followed by a placement with line management responsibility such as warehouse shift manager, a move is often made into a planning/analysis position. Such sideways or upwards moves between operational management and planning/analysis are not uncommon in other areas of industry (for instance in railway management). The development of such career paths suggests that graduate recruits must be equipped with a wide range of management and analytical skills if they are to succeed in the logistics industry.

Based on these findings a questionnaire survey of the UK logistics and distribution industry is being undertaken. Its results will allow much more in-depth evaluation of the particular skills and knowledge required and success factors for each role, at various levels of management. This will help to improve the generalisability, validity and reliability of the early results outlined in this paper, and will provide a framework for future skills and knowledge analysis in logistics. HRM in logistics will be greatly aided by this research.

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