

BEING SUCCESSFUL AS A SUPPLY CHAIN MANAGER IN FASHION

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Abstract

This paper presents the findings of a research project on the competencies which supply chain managers in the fashion industry need to rely on, in order to perform successfully in their job. In this research project 21 supply chain managers in the fashion industry in the Netherlands have been interviewed. Together they are responsible for the distribution of goods towards 1,550 owned/franchised outlets and towards about 6,600 re-seller outlets, which is about half of all fashion retail outlets in the Netherlands. The results give a clear picture of the competencies required of a logistics and supply chain manager in the Dutch fashion industry and point to how these competencies have been acquired in practice.

Introduction

Each year over 3,200 students in the Netherlands follow a bachelor's programme in Logistics c.q. Supply Chain Management at more than 15 different institutes for higher education. In collaboration with representatives from these institutes, as well as with industry representatives the Dutch Landelijk Platform Logistiek (LPL, 2010) has defined a competency-profile that all Dutch bachelor programs must meet (Beroeps- en competentieprofiel logistiek). This profile contains a body of elements that all programs must have in common, while leaving room for tailoring the individual curricula. The LPL formulates the general logistics competencies as:

“developing, managing and executing logistical processes in a professional manner”,

and defines a competence as:

“a set of abilities, which someone has to possess in order to carry out a specific task, or solve a problem, or handle a situation in a given professional context” (Van ‘in Beweging zijn’ naar ‘in beweging blijven’ Werkgroep Verbreding Bachelor-opleidingen HTNO, 2002).

Furthermore the members of the LPL have agreed that:

“a logistics graduate must be able to function as a supply chain professional at starter/ beginner level and he or she must have the potential to develop onto the level of ‘advanced’ supply chain professional” (“beroeps- en competentieprofiel logistiek”, 2010).

Any logistics bachelor program also needs to adhere to the European requirements of the Dublin Descriptors for First Cycle Programs (Shared ‘Dublin’ descriptors for Short cycle, First cycle, Second Cycle and Third Cycle Awards, 2004, Appendix 0), which states that:

“graduates ... have competences typically demonstrated through devising and sustaining arguments and solving problems within their field of study” (Dublin descriptors, 2004).

We are convinced that, while business strategies and business practise have become much more complicated than in the past, and logistics practices have become much more diverse – logistics not only is applied in production, retail, trade or transport, but for example in health care as well, or event organisation – we need to investigate what the actual requirements are on logisticians in business practise. These seemed to change over time. And these seemed to be different in different contexts.

Since 2004, we investigate at HAN University of Applied Sciences what competencies are required from our bachelor graduates when they enter and operate in the field of Logistics. With the introduction in 2005 of competency based learning at the logistics curriculum of HAN University of Applied Sciences, we define competencies as a combination of knowledge, skills and attitudes, in line with the definition suggested by the Dutch Education Council (Onderwijsraad, 1993). This definition will do, in order to analyse requirements in business practise, in such a way that it is able to translate its results into improvements of our study program. Our aim is, besides making sure that our students meet entry level expectations, to also prepare them to develop any further into senior management positions in the supply chain. In terms of the 5 stage model for learning processes, as developed by Dreyfus and Dreyfus (1986), this means that our graduates have arrived at the first level of ‘novices’, or at best at the second level of ‘advance beginners’ when they start work. Although according to Dreyfus and Dreyfus (1986), having had practical experience is a prerequisite to move to the next stages (Level 3: competence, Level 4: proficiency and Level 5: expertise) our first aim is to explore what we might do as part of our bachelor program, to help our students progress to the advanced learning levels of ‘competence’ and possibly ‘proficiency’ and ‘expertise’, after graduating.

Both from a theoretical point of view (Christopher, 2005) and based on trends observed in relevant supply chain research (Hofman, 2011) one would expect that at least some of our older graduates have developed from logistics positions in a narrow sense, into SCM positions where they are of decisive influence on corporate strategy. An investigation amongst our graduates showed that hardly no one amongst them has developed into a function of SCM (Glöckner, Pieters & Weijers, 2007). Graduates of other universities of applied sciences do not seem to be very different in that respect. Some colleagues suggest that this has to do with top management underestimating the role of logistics. Since several years, logistics professionals plead for a position in the board room (VLM, 2009). We are not convinced. Our research showed that, in general, logistics graduates hardly seem to be able to develop onto management level. Is that true, and if so, why, that is our question. It is therefore relevant to know on which competencies supply chain managers who work for successful companies, can rely. This was the primary question of our research.

The underlying purpose of the research was to find out how we might provide our logistics graduates with a better foundation, which enables them to develop into a management role that matches with their company's strategic direction. In 2010, we formulated the following four research questions. The answers on the first two of them are addressed to in this paper:

1. What competencies are required of supply chain professionals in business practice – not only in terms of professional knowledge and skills, but also and especially in terms of behaviour and attitudes?
2. How are these competencies developed in practice?
3. In what ways can such competencies be developed in a bachelor education program? – to be addressed to in a next paper.
4. What key factors of supply chain management may contribute to the success of a company? – to be addressed to in a next paper.

In this paper we focus on the question which competencies the interviewed supply chain manager considers important in his own role and on how he or she has learned these: how did he develop his competencies, when did learning occur and what have been key learning moments, according to him? In a next research step we investigate the other relevant functionaries within the companies and their views on the role of SCM.

We have chosen to carry out our research in the fashion industry, for several reasons:

Firstly, the pressure on the supply chain in the fashion industry is very high. This trend can be seen in many industries, but in fashion this pressure seems particularly high (Aquino & Draper, 2008):

- The supply chain is strongly driven by consumer demand – this demand is very unpredictable;
- The products usually have a (very) short life cycle;
- The chains are global;
- ICT plays an important role in the supply chain.

These characteristics set high standards in terms of required response times, flexibility, delivery reliability and level of service. Such standards can only be met if the supply chain is well designed and closely fits the business and marketing strategy. The work done by the supply chain manager, therefore, seems vital to the success of the organization.

Secondly, we chose to focus on the fashion industry because there are several successful company strategies. Zara's strategy, for example, is highly successful, but so is Zeeman's or Benetton's, even though they work with very different supply chain concepts. The fashion industry is complex in the sense that some companies merely are retailers, others combine retail with production, or with wholesale. Some focus on the trendsetters' market, others on fashion, Basics and/or Never out of Stock (see Figure 1).

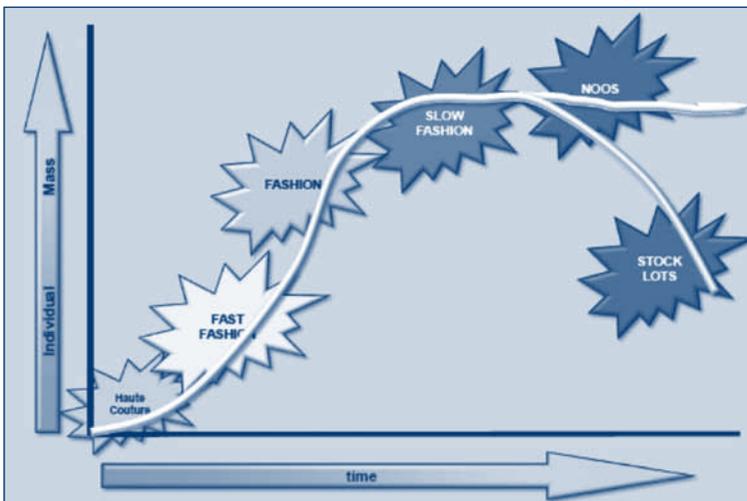


Figure 1: *Market Positioning of fashion segments (Time in this graph stands for how long a products remains fashionable)*

Our research is in its first stages. In this paper we present the results of the first two research questions.

Research method

In the first phase of our research we interviewed 21 supply chain professionals working at fashion companies in the Netherlands. For these interviews a questionnaire was created, containing the following topics:

1. General information about the company;
2. General information about the supply chain professional;
3. Questions about competencies and the development of competencies
 - a What knowledge needs the SC manager to have, in order to carry out his/her job adequately or successfully?
 - b What behavioural competencies does the SC manager need to show, in order to carry out his/her job adequately?
 - c How has the SC manager developed his/her competencies?
 - d What events occurred which lead to important learning experiences?
 - e What learning activities has the SC manager gone through?

Given the exploratory nature of this research project, we used open questions in the interviews. We asked the interviewees to tell us what knowledge and skills they think are required in order to be successful in their own job as well as which behavioural attitudes. We also wanted to understand how they had developed this knowledge, the skills and the attitudes.

In our selection of the companies we have tried to include a diverse selection of companies, in terms of strategy, market sector, size, geographic reach (national, international) and how fast their collections are taken through the supply chain. In Figure 1 this is indicated with the terms 'fast-fashion, fashion, slow-fashion and never-out-of-stock (noos)'.

The SC managers interviewed were very willing to participate in our research. The interviews about the professionals' personal development and the role and method of logistics in their companies yielded a wealth of information which has not all been included in this paper. In this paper we focus on the question which knowledge, skills and attitudes were seen as necessary to be successful in their jobs, as well as how the interviewees had developed these.

Any specific context appears to be important for the required knowledge, abilities and attitudes. That is why we start with a short case study of one of the interviewees – we here call him George – who describes what he thinks is necessary to be successful in his job, as well as how he has acquired some of those competencies.

Results 1: A case study

Background

After completing secondary school, George worked as a sports teacher. Over the years he acquired relevant logistics, customs and management knowledge at bachelor level in different part-time courses, while already working as a warehouse manager. George has been a logistics manager for approximately 20 years, of which the last 11 years at his current company. His boss is the financial director of the company. In his current role he is responsible for all inbound transportation, meaning from the Far East, for warehousing and for distribution towards its fashion retail outlets. Over the years he has collaborated with his colleagues at procurement on getting deliveries of suppliers changed to FOB conditions, and as a result he has extended his influence upstream. He is now in a position to negotiate with suppliers to deliver prior to the agreed delivery date. For the past seven years his responsibilities upstream have been extended into areas which traditionally were considered as part of the procurement function only.

Relevant behaviour

When we asked George which behavioural competences he would look for, in case he had to recruit his successor, he explained how in his current role he has to be able to convince both the members of the management team of a good idea, as well as the people in the warehouse. In order to do so, he needs to be patient and persistent. “The management team always wants a proof in the form of an ROI calculation”, George says, “however in some specific cases you only can have assumptions”. He often involves the finance director to define the most realistic assumptions, as a basis for his calculations. He takes care that they always both agree on the numbers. George adds that timing is important too: “If results are miserable, the moment is not there to ask for an investment. That’s how it works”. George has learned that people in the warehouse highly appreciate it when he involves them. So he does. As a result the acceptance of what needs to be changed is very high. “Paying attention to your people is key”, according to George, “you must be a people manager”. For George this is another key requirement of his job: the ability to speak to people at the highest and at the lowest level in the organisation about a very wide range of subjects, ranging from purely business oriented, to technical and personal issues

like illness, or abuse at home. George says: “Management is a job in itself. At my first management course I learned that you have to listen to your people and that they have good ideas too. But I still make mistakes: I still move too fast. If people have not been informed and feel passed by they will think ‘apparently you can do it without me, so it is up to you alone’. In fact it is up to me to take the first step towards them; it is easier for me to go away to the people who work in the warehouse, than it is for one of them to come to me. I have to take the effort and for instance sit with them at lunch time, or just go to the warehouse and drink my coffee over there together with them.”

Key learnings

We asked George what he would describe as ‘key learning experiences’ in his career. His experience with the introduction of Radio Frequency in his warehouse has been key for George. He and the other members of the project team had based the RF introduction on the current picking lists. So they based the programming of RF on the same logic of the old system. Within half an hour after the RF system went live, the order pickers came into his office to tell him that the new system was not working. It turned out that the order of the order picking lists, which in the old situations had been handed to the order pickers in person, in practice not always was the same as the order in which picking was done, for very good reasons as he found out. But the members of the project team previously had assumed that the order that pickers followed in practise, would be the same as the order as printed on the order picking lists. And they had incorporated this assumption in the programming of the new RF system. It took a lot of effort to change the RF programming. Ever since this experience, George involves three or four order pickers in any change track, as a way to make sure he understands how things really work and taps into the know-how and experience of the order pickers. He says: “If you don’t involve them, they may just go and prove to you that it won’t work”.

Another key experience of George occurred when travelling together with his purchasing colleagues to the Far East in order to learn what could be done to improve the ordering and delivery processes of the suppliers. He found out that crucial aspects, which he had assumed that his purchasing colleagues knew about, were not part of the negotiation. For example they appeared not to understand the consequences of changes in packing units, or pre-labelling on logistics. “Our purchasers appeared to consider pre-labelling as ‘too expensive’, but they appeared not to understand the consequences further down the chain,” George says. This learned him a lot about his own role and the role of the purchasing managers. As George explains, even though purchasing is not his responsibility, he does make sure he is involved when agreements are made with suppliers which impact on the supply chain.

First set of conclusions

In fact, George describes in different ways his role as being both broad (from the joint agreements with his purchasing colleagues with suppliers, to managing inbound transport, warehousing and distribution to the shops) and in a certain sense deep: he needs to be able to make ROI calculations for very different kinds of changes, some of which require in-depth technical know-how, for example when changing to Radio Frequency in the warehouse. Furthermore George stresses the importance of being able to deal with people at all levels in the organisation and of being accepted as a discussion partner by his purchasing colleagues. He also shows us that he is aware of the question how people in the warehouse look at him, and he adjusts his behaviour accordingly: he spends time with them on a regular basis – with lunch break, coffee-breaks – because he realises they will find it harder to step out to him than the other way around. He gives us an insight in how learning, for him, has come about. In the examples he gives, it is when things were not the way he thought they were, that he ‘learned’ something and from that moment on, he did things differently. Peter Jarvis (in Illeris 2009, p 27) describes this as ‘learning’ and the outcome of the learning as ‘the changed person’:

“We all have new sensations in which we cannot take the world for granted – we enter a state of disjuncture, and immediately we raise questions: what do I do now? What does that mean? (...) Many of these queries may not be articulated in the form of a question, but there is sense of unknowing. (...) Conscious experience arises when we do not know and when we cannot take our world for granted. Through a variety of ways we give meaning to the sensation and our disjuncture is resolved “ (Peter Jarvis in Illeris 2009, p 27).

First of all, this case study gives us an idea of the type of behavioural competencies a supply chain manager must have. It is this kind of information we obtained in the interviews: the supply chain managers talked to us about their own every day work experience and what they had learned from it. In the next section of the paper we summarise these findings.

Results 2: Background of Supply Chain professionals in the Dutch Fashion Industry

Educational background

Of the 21 supply chain managers whom we interviewed, 33% had a university degree and 52%, graduated from higher professional education (bachelor degree). Two interviewees

had started work after secondary school and one interviewee finished senior secondary vocational education (MBO).

| Highest educational level | Number of interviewees |
|--|------------------------|
| University (master) | 7 |
| Higher professional education (bachelor) | 11 |
| Secondary professional education (MBO) | 1 |
| Secondary school | 2 |

Table 1: *Educational background*

Seven of the eighteen SC managers with an higher professional (HBO) or university education had studied Logistics, another seven Economics in another sense. Three obtained a engineering degree and one graduated in computer sciences.

Responsibilities

In order to gauge the SC manager's influence on a company's policy it is helpful to indicate the level of the SC manager's position in the organization. We distinguished four different levels.

| Job level | Number of interviewees |
|--|------------------------|
| 1. Managing co-director with supply chain responsibility / Owner | 3 |
| 2. Member of the management team (reporting to the managing director or company owner) | 8 |
| 3. Department manager (reporting to a member of the management team) | 9 |
| 4. Other | 1 |

Table 2: *Interviewees' job levels*

Most interviewees hold a position in a management team or heads a department, so level 2 or 3. Additionally, we asked if their field of work was national, European, or worldwide. Although all SC managers deal with global inbound chains, seven of them have responsibility for national outbound flows only, seven have European responsibility for outbound flows and seven for global outbound flows.

A SC position is also characterized by the width of responsibilities for the different supply chain management processes, as defined in the SCOR model. The results show the division below:

| Plan | Source | Make | Deliver | Return |
|------|--------|------|---------|--------|
| 14 | 4 | 5 | 20 | 18 |

Table 3: *Interviewees responsibilities according to SCOR model*

All SC manager are responsible for Deliver and Return and most are in some form responsible for planning inbound flows and distribution. Source and Make are only part of the SC manager's responsibilities if the company has its own production. If the company is a retailer, purchase and production rarely are the responsibility of the SC manager.

Experience in SC positions

We were also interested in understanding how long the interviewees had worked in a SC role and how long they have been working at their current company.

| Years | Holding an SC position | Working for the company |
|--------------|------------------------|-------------------------|
| 0 - 5 | 5 | 7 |
| 5 - 10 | 4 | 6 |
| More than 10 | 12 | 8 |

Table 4: *Number of years in a supply chain position and with their current employer*

So, the majority of the SC managers interviewed are highly experienced supply chain managers. Also, the SC managers often have worked for many years in their current company.

Second set of conclusions

Our research suggests that it is quite possible for bachelor level students to progress to senior supply chain management positions in the Dutch fashion industry. An economics related degree is a good preparation. It takes more than ten years of relevant experience to reach a senior supply chain management position, and it seems to help to stay for a relatively long period of time, say at least five years, at the same company. The majority of SC managers in the Dutch fashion industry are responsible for Plan, Deliver and Return, with a clear tendency to influence Source decisions, since consequences of policies at that

stage of the chain will be felt strongly further downstream. The majority of the supply chain managers we interviewed are either member of the management team or report to a member of the management team.

Results 3: Key Competencies of Supply Chain Professionals

Required competences

The interviewees were asked which knowledge they considered necessary for having success in their jobs. We clustered the respondents' answers in table 5. Of course, any clustering contains an element of interpretation. For example, all answers mentioning costs have been grouped under knowledge about business economics. We realize that other combinations are possible as well.

| Knowledge domain | Number of interviewees who mentioned this knowledge domain |
|--|--|
| Essential | |
| Business economics | 17 |
| Information and communication technology (ICT) | 16 |
| Warehouse Management | 13 |
| Very important | |
| International trade/customs procedures | 11 |
| Commercial knowledge | 9 |
| Knowledge of processes and process control | 8 |
| Important | |
| Transport | 5 |
| Purchase | 5 |
| Performance indicators | 4 |
| Recent technological developments | 4 |
| Overview of the chain | 4 |

Table 5: *Knowledge domains that SC managers in Fashion consider as important for performing well in their position*

Notably, but not surprising, having knowledge of business economics and ICT scored highest. An important task of a SC manager is of course to make sure the chain works at

low costs. In order to manage this process, insight into cost structures is essential, and so is knowledge of ICT systems.

We also asked the interviewees to describe which behavioural competences they need to be able to rely on in order to be successful in their job. We clustered their answers in table 6. Some respondents formulated different terms for similar behaviours. We realize that other combinations are possible as well, and that a further clustering is still possible.

The vast majority of our interviewees considered it essential to be able to deal with people as well as being flexible and having an action oriented/problem solving approach. Otherwise having success is not possible. Most of the respondents consider it very important to have an intrinsic motivation to pro-actively improve the 'way things currently work' – and this requires curiosity, being able to motivate others, having a vision, and the ability to deal with stress.

Third set of conclusions

All interviewed SC Managers consider it essential, not just to merely rely on technical knowledge – like ICT, Economics (Finance), Warehouse Management – but also to be a good people manager, communicator and team player. In order to progress his career up to senior levels, he needs to have an intrinsic motivation to continuously and pro-actively improve supply chain processes, and to be curious enough to find out relevant information – technical or not - in case he does not already have it available. His job requires flexibility and the ability to handle stress in order to deal with the daily surprises at an operational level.

| Behavioural competency | Number mentioned |
|--|-------------------------|
| Essential | |
| Dealing with people/socially capable | 15 |
| Being flexible | 13 |
| Using a problem solving, action oriented approach | 13 |
| Very important | |
| Showing a high level of intrinsic motivation | 9 |
| Anticipating, being pro-active | 8 |
| Communicating at different levels | 8 |
| Curiosity | 8 |
| Being able to motivate others | 8 |
| Being able to think strategically, having a vision | 8 |
| Immunity to stress | 7 |
| Important | |
| Customer oriented | 6 |
| Being able to think and work in a multidisciplinary way | 6 |
| Willingness/ability to cooperate | 6 |
| Serving as a role model | 5 |
| Having a sense of responsibility | 5 |
| Empathy | 5 |
| Patience | 4 |
| Being able to listen | 4 |
| Tenacity | 4 |
| Other | |
| Eye for detail | 3 |
| Analytical skills | 3 |
| Language skills | 3 |
| Being able to translate strategy to a tactical and operational level | 3 |
| Being able to delegate | 3 |
| Self-knowledge | 3 |
| Willingness to change | 2 |
| Being passionate about one's job | 2 |

Table 6: *Behavioural competencies which SC managers interviewed regard as important for performing well in their position*

Results 4: Developing the right competencies

We asked our interviewees how they had developed the competences which they said they needed in their job. The intention of this question was to explore to which extent we might be able to develop such competences already during our LE bachelor program.

Learning experiences

Although in general learning was seen as a continuous process, some critical events stood out as “learning experiences”, mostly because they were characterised by a greater change, or a period of greater novelty than other periods. These critical events appeared to be very different. It could be a reorganisation, the closure of a Distribution Centre, the building of a new Distribution Centre, a legal affair one had had to deal with, or an international working experience. Or entering a new function, as a period of intense learning. Some respondents learned a lot from one particular critical event, for others repetition had taught them a lot, being involved over and over again in a similar activity. A third important source for learning appeared to be not a single critical event, or a series of events, but ‘exposure’ to senior colleagues who helped them to reflect on occurring processes and their behaviour, by showing their observations, having conversations, helping them to learn from mistakes.

Learning behaviour

Some interviewees described that they had learned a lot from behaviour that had been rewarded. For instance for some a career promotion had been a push to repeat the behaviour that had led to this promotion. Or, in case “being somewhat self-willed” had led to success, this behaviour tended to be repeated. But also behaviour which was disapproved, also led to learning, in the sense that that behaviour tended to be moderated as a consequence. No matter whether this disapproval had had the form of performance reviews, or had been given ad-hoc. There seemed to be consensus that an “open mind” is a key prerequisite for learning: having a certain curiosity, a willingness to learn and a willingness to go to the bottom of things. Asking questions was seen as an important feature of having an “open mind”.

Learning Activities

All respondents appeared to have followed additional training after they had started working. As one respondent phrased it, this additional training is used “to fill in the blind spots”, either on personal initiative, or because it is part of the management development curriculum of his company. So, with a few exceptions, the additional training covers many different areas. For none of the respondents the additional courses seemed to be the

key source for further acquiring and developing their competences. Some interviewees categorised the types of training, which they had followed as either “technical courses” or “personal development” courses.

| Technical courses | Number |
|--|--------|
| Important | |
| ICT | 4 |
| Financial indicators | 3 |
| Other (in alphabetic order) | |
| ABC Analysis; Activity Based Costing; APICS; Employment Law: “How To Deal With The Worker’s Council; Import/Export Documentation; Project Management | All: 1 |

Table 7: *Technical Courses followed by SC Managers*

The technical courses followed most often were ICT and key financial indicators.

| Personal development courses | Number |
|--|--------|
| Important | |
| leadership/management skills | 7 |
| change management | 4 |
| performance reviews | 3 |
| negotiation skills | 2 |
| Other (in alphabetic order) | |
| conflict management; consulting skills; difficult conversations; effective communication and presentation skills; personal effectiveness, time management; report writing; sales training. | All: 1 |

Table 8: *Personal Development Courses followed by SC Managers*

In the personal development category leadership/management skills was mentioned most often, followed by change management, performance reviews and negotiation skills. Various other courses have been mentioned, some of which, one could argue, could also be part of a leadership/management training.

The majority of respondents visited conferences and seminars as a way to keep up-to-date with developments in the supply chain.

Fourth set of conclusions

Experiences which foster learning, appear to be quite diverse. In many cases the learner is confronted with something new, something he has never had to deal with before. But that does not count for everyone. For some respondents, a repetition was the specific context in which they had learned a lot ('practice makes perfect').

All interviewees reported that receiving 'feedback' had taught them a lot. No matter whether they received this feedback directly in a one-to-one situation, or indirectly, as in the case of a career promotion, as a result they displayed the related behaviour more in case of a 'positive' feedback, or in case of a 'negative' feedback less often. This points to the social aspect of learning and the role of 'important' other people in shaping behaviour.

As far as the personal aspect of learning concerns, the attitude of 'wanting to learn' and 'having an open mind', was considered essential by many respondents. Learning activities, in the sense of following a formal course, seem to occur 'just-in-time', with a focus on ICT and Financial knowledge. This might be explained by the fact that as a supply chain professional moves up, he needs to have a better understanding of the implications of supply chain activities on the financial results of the organisation. It is not surprising that ICT is one of the formal courses taken, since it is a field of knowledge which develops continuously and quickly. The personal development activities in the areas of leadership/management skills and change management seem to support the finding that a good SC manager needs to be a good people manager and that good SC management is about continuously improving and thus changing it.

Overall conclusions and recommendations

1. The first question of our research was: What competencies are required of supply chain professionals in business practise – not only in terms of professional knowledge and skills, but also and especially in terms of behaviour and attitudes? In this research we found that:
 - a. The supply chain managers we interviewed are professionals with a high level of intrinsic motivation and curiosity. This is both the image which the supply chain managers have of themselves and the impression they left with us in the interviews.
 - b. All supply chain managers but one have substantial experience in both supply chain management and in the company. Knowledge of the specific business context seems greatly important for a successful supply chain manager.

- c. A successful supply chain manager must have classical logistics knowledge. In addition he must have a firm grasp of finance and accounting as well as information technology. Finally knowledge of the business context – international trade, customs procedures – is important.
 - d. Having knowledge of logistics, finance & accounting and information technology in itself is not enough. A successful supply chain manager seems to distinguished himself by a particular attitude towards learning, change and people: he is a flexible, curious person with a problem solving, action oriented attitude and able to work well with, and motivate people at different levels in the organisation.
2. The second question of our research was: How are these competencies developed in practice? On the basis of our research we may conclude that:
 - a. Most interviewees regard their initial degree as ‘entry tickets’ to their careers and see their practical work experience as defining learning experiences. Such experiences might either be new situations in which interviewees were challenged to find a way to deal with a particular situation, or a repetition, which then led to the sense of becoming ‘really good’ at something.
 - b. The importance of feedback in shaping behaviour is seen as important by several interviewees. If a particular kind of behaviour (for example being somewhat strong willed) was rewarded, they tended to repeat it, and similarly tried to abolish it in case a certain behaviour had been discouraged by for instance a boss.
 - c. Successful supply chain managers describe a certain kind of personal ‘learning behaviour’ which they consider key to their success. This includes having an open mind or a certain curiosity, a willingness to learn and a willingness to go to the bottom of things.
 - d. Learning activities include both technical courses (especially ICT and Financial Indicators) and personal development courses (mostly leadership/management development and change management), which were taken on an ‘as needed’ basis.
3. Our third question was: In what ways can such competencies be developed in a bachelor education program? We address this question in a next phase of our research, but on the basis of our findings we can formulate the following preliminary suggestions:
 - a. Since the interviewees consider their degrees ‘mere’ entry tickets for their careers and locate most of their learning in practical work experience, it is critical to offer relevant work experience to our students while still at school. At our university, in terms of practical work experience, students currently do an internship in the 5th semester and a thesis in the 8th semester, which both are a full-time, 4,5 month practical work experience. Given the importance the interviewees attach to their practical work experience the question arises, if there is more we can do, to make it

possible for them to acquire practical experience, while still at school – or to help them learning more from work experience.

- b. The interviewees clearly described the type of behaviour which is required to progress to and operate at the senior supply chain manager level. Such behaviours include an openness towards learning, an ‘open mind’, a certain curiosity and a willingness to go to the bottom of things. It should be our aim to develop in our students these attitudes. If we take seriously what our interview partners have said about the role of feedback in shaping behaviour, this requires from us, as teachers, that we reward appropriate learning behaviour and at least inform students of inappropriate behaviour.

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