CHRISTOPH FLÖTHMANN & KAI HOBERG
CAREER PATTERNS OF SC EXECUTIVES: AN OPTIMAL MATCHING ANALYSIS
FIRST INSIGHTS
EXECUTIVE SUMMARY

This document provides an quick overview of our study “Career Patterns of SC Executives” and its first insights. We gathered 307 resumes of SC executives in the social network XING and classified these resumes in multiple dimensions. Based on the data we would like to understand the commonalities among the resumes and best path to a position as supply chain executive. We pursued two different clustering approaches: (i) optimal matching and (ii) ranking by tenure to head. Clustering in this context means grouping of similar individual career paths to career patterns.

The first (and more scientifically-advanced) approach is the optimal matching analysis with subsequent hierarchical clustering. As input we used our SC executives’ career sequences which only contained information about the functions they possessed before they became Head of SCM or higher for the first time. We could identify six different career patterns, which were labeled referring to the most-prominent function in this cluster.

The second approach we ranked the career sequences by their tenure to head from fast to slow ascent. This makes sense since we defined a steep career as our success measurement. We split the sample into three different groups: Top 25% (fastest to head of SCM), Middle 50% and Bottom 25% (slowest to head of SCM). Thanks to these clusters, we are able to expose differences in the CV characteristics, e.g. higher educational background of the top-performers.
WE APPLIED A METHODOLOGY FROM DNA-SEQUENCING TO IDENTIFY SCM CAREERES

Overview  Key Cluster Characteristics

Research Methodology

1. Data collection
2. Resume classification and coding into multidimensional standardized sequences
3. Definition of transformation cost based on inverse functional transition frequencies
4. Optimal matching analysis for similarity approximation
5. Hierarchical cluster analysis using Ward’s method
6. Visualization through Multidimensional scaling
7. Multinomial Logit analysis to identify significant differences between clusters

2. Resume Classification into Std. Sequences

Max Mustermann
Dipl.-Ing.
Head of Supply Chain Management EMEA
Multilever AG
Hamburg

Based on the gathered data we have good understanding of the background of SC executives.

Overview Key Cluster Characteristics

Data Summary

1. We evaluated 1,800+ CVs regarding their job titles, functions, industries, management levels, working experience and educational background.
2. We distinguished between 14 functions, 9 hierarchical levels and 9 industries.
3. We focused on analyzing 307 resumes of supply chain executives (with staff responsibility).
4. On average, SC executives possessed 15.7 years of business experience.
5. On average, they were appointed to their first SC executive position after 10.7 years.

Transition Frequencies - Functions

Based on the analysis we have identified six clusters of supply chain managers.

### Overview Key Cluster Characteristics

<table>
<thead>
<tr>
<th>Cluster</th>
<th>Percentage in Clusters</th>
<th>Years to SCM Executive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales representatives</td>
<td>12.1%</td>
<td>14.5</td>
</tr>
<tr>
<td>SCM devotees</td>
<td>20.8%</td>
<td>8.8</td>
</tr>
<tr>
<td>Logisticians</td>
<td>33.9%</td>
<td>10.9</td>
</tr>
<tr>
<td>Sourcing specialists</td>
<td>6.2%</td>
<td>16.2</td>
</tr>
<tr>
<td>Manufacturing experts</td>
<td>8.5%</td>
<td>11.1</td>
</tr>
<tr>
<td>Outsiders</td>
<td>18.6%</td>
<td>8.2</td>
</tr>
</tbody>
</table>

WE COULD DERIVE MULTIPLE INSIGHTS FROM EVERY CLUSTER

Overview  Key Characteristics (OMA – Six Clusters)

<table>
<thead>
<tr>
<th>Cluster</th>
<th>Characteristics</th>
</tr>
</thead>
</table>
| Sales representatives | - High amount of prior business experience in sales/marketing (50% of total experience)  
                          - Many careers with staff responsibility in other functions before joining SCM (70%)  
                          - Highest share of Business Administration & Economics graduates (73%) |
| SCM devotees          | - Vast majority of careers were spent in SCM functions  
                          - Second fastest ascent to head of SCM (mean 8.8 yrs)  
                          - For 79%, head of SCM was the first management position within their careers |
| Logisticians          | - Largest cluster, containing 104 careers (34% of total)  
                          - Only 6% had SCM experience before their appointment to Head of SCM  
                          - Being the largest cluster, many statistics near the overall average (=driving averages) |
| Sourcing specialists  | - Longest tenure to head (16.2 yrs) and vast business experience (19.1 yrs)  
                          - Smallest cluster (19 sequences), 83% of aggregated tenure to head in procurement  
                          - “Lowest” educational background with 29% apprenticeship & only 64% univ. graduates |
| Manufacturing experts | - 80% of aggregated career years spent in production  
                          - Largest (business-)engineering background (46%)  
                          - Experienced leaders: 38% of previous career years spent heading other functions |
| Outsiders             | - Largest share of former consultants (41%) & fastest tenure to Head of SCM (8.2 yrs)  
                          - Majority is heading the SCM-department in large enterprises (47%, > 10 BN € revenue)  
                          - Highest education: 91% university graduates, 12% of those with PhD |

WHO IS MANAGING OUR SUPPLY CHAINS?

BASED ON THE TENURE NEEDED UNTIL THE FIRST SC EXECUTIVE POSITION WE DISTINGUISH THREE CLASSES

Overview  Key Characteristics  
(By Time To Head – Three Clusters)

**Leaders  
(Top 25%)**
- Largest share of SCM and Consultancy experience
- Largest share of PhDs
- Majority works in medium-sized companies (Revenue 1 BN to 10 BN EUR)
- Majority under 35 years of age → steep careers more common in recent years

**Pacers  
(Mid 50%)**
- 56% headed other functions before
- The vast majority has between 11 and 20 years of working experience
- Well-educated: 85% with graduate degrees + 7% PhDs

**Laggards  
(Bottom 25%)**
- Majority works in large enterprises (> 10 BN EUR)
- Largest share of apprenticeships
- Largest share of non-SCM related field of studies
- Smallest share of former SC Managers and Consultants

WHO IS MANAGING OUR SUPPLY CHAINS?

FOR FURTHER QUESTIONS PLEASE FEEL FREE TO CONTACT US

Contact Details

**Christoph Flöthmann**
Ph.D. Candidate
Kühne Logistics University – The KLU
Wissenschaftliche Hochschule für Logistik und Unternehmensführung
Großer Grasbrook 17
20457 Hamburg
Tel.: +49 40 328707-304
Fax: +49 40 328707-209
E-Mail: Christoph.Floethmann@the-klu.org
Website: www.the-klu.org

**Prof. Dr. Kai Hoberg**
Professor of Supply Chain and Operations Strategy
Kühne Logistics University – The KLU
Wissenschaftliche Hochschule für Logistik und Unternehmensführung
Großer Grasbrook 17
20457 Hamburg
Tel.: +49 40 328707-276
Fax: +49 40 328707-209
E-Mail: Kai.Hoberg@the-klu.org
Website: www.the-klu.org

wimosc.the-klu.org