



Global footprint of Nordic manufacturing firms

Citation

Heikkilä, J., & Virtanen, A. (2018). *Global footprint of Nordic manufacturing firms: An explorative archive study*. Paper presented at NOFOMA - The Nordic Logistics Research Network, Kolding, Denmark.

Year

2018

Link to publication

TUTCRIS Portal (<http://www.tut.fi/tutcris>)

Take down policy

If you believe that this document breaches copyright, please contact cris.tau@tuni.fi, and we will remove access to the work immediately and investigate your claim.

Global footprint of Nordic manufacturing firms

An explorative archive study

Jussi Heikkilä*

Aleksi Virtanen**

*) Tampere University of Technology, Industrial and Information Management, PO Box 527, FI-33101 Tampere, Finland, E-mail: jussi.heikkila@tut.fi, Tel: +358 50 3761090

**) Tampere University of Technology, Industrial and Information Management, PO Box 527, FI-33101 Tampere, Finland, E-mail: aleksi.t.virtanen@tut.fi

ABSTRACT

Purpose

A growing research trend has recently focused on movements of manufacturing across regional boundaries through offshoring, backshoring, reshoring and nearshoring. This approach depicts only a partial picture of what is going on in terms of global manufacturing strategies. More attention is required to understanding the various forms of building the global manufacturing footprints of firms in different manufacturing industries under different contingencies. The purpose of this paper is to compare the direct capital expenditures of large Nordic manufacturing firms in various parts of the world to other forms of building global presence, i.e. R&D expenditures and acquisitions and divestments.

Design/methodology/approach

We used archival research to study the different globalisation patterns of 40 large Nordic manufacturing firms, over the period of 2005-2017. Ten largest manufacturing firms were included from each of the four Nordic countries, i.e. Denmark, Finland, Norway and Sweden. The sources of data included LexisNexis news database, company financials and EU R&D scoreboard. For each of the 40 manufacturing firms included in the study, over the 12-year analysis period, data was collected to compare the direct capital expenditure, R&D expenditure, and acquisitions and divestments.

Findings

The research results indicate considerable differences in the way manufacturing firms develop their global footprints. Comparisons are made to highlight differences across industries. Illustrative case studies are provided and future research proposals given to enrich existing research on globalisation of Nordic manufacturing.

Original/value

A novel approach is taken to the recent research on global manufacturing movements. New avenues for research are searched.

Keywords: manufacturing, globalization, strategy, global footprint, explorative research.

1. INTRODUCTION AND RESEARCH METHOD

The research strategy in this study is archival research. The data is collected by using the news published in chosen media sources. The archival research strategy is applied in this research in order to achieve the longitudinal perspective of twelve years, i.e. 2005-2017. The data used is documentary secondary data. Comparable analyses related to manufacturing relocation and utilizing news archive databases as the source of data have been made by, e.g., Ancarani et al. (2015), Fratocchi et al. (2013) and Zhai et al. (2016).

The purpose of this study was to gather information and build a database of 40 leading manufacturing companies located in Denmark, Finland, Norway and Sweden. The database consists of information on:

- Capital expenditure
- Acquisitions and divestments, and
- R&D expenditure.

The sources of data included news databases, financial statements and annual reports and EU industrial R&D investment scoreboard. For each of the 40 manufacturing firms included in the study, data was collected to compare the direct capital expenditure, R&D expenditure, and acquisitions and divestments.

2. RESULTS

In total, 590 major capital expenditure investments were found for the selected 40 large Nordic manufacturing companies for the analysis period 1/2015 – 6/2017. The combined monetary value was 108.2 billion Euros for those identified investments for which the value was available (543 capital expenditure investments with the monetary value available / 590 capex investments in total; 92%). As for the R&D investments, 170 individual investments were found. The total value was 11.1 billion Euros for those R&D investments with monetary value available (89 R&D investments with the monetary value available / 170 R&D investments in total; 52%). For acquisitions, 502 acquisition investments were identified. The total sum was 102.6 billion Euros for those acquisitions with the investment sum disclosed or that could be approximated (411 acquisitions with the monetary value published or approximated / 502 acquisitions in total; 82%). Finally, 194 divestments were found in total. The total value was 53.8 billion Euros for those divestments in which the contract sum was published or it was approximated (150 divestments with the monetary value available or approximated / 194 divestments identified in total; 77%).

One company was found to dominate the investment values both in capital expenditure and acquisitions. The Norwegian Statoil in the oil and gas industry had a total of 56.8 billion Euros worth of capex investments over the analysis period, which counted for 52% of all the identified capex investments with monetary value available. Correspondingly, the value of Statoil's acquisition investments was 28.4 billion Euros for those acquisitions in which the value was disclosed or could be approximated. This value counted for 28% of the total acquisition value identified for the 40 companies included in the study.

Four distinct groups were identified in terms of their investment patterns. The first group consisted of companies in the high-technology intensive industries, e.g. Novo Nordisk in the pharmaceuticals and biotechnology and Ericsson in telecommunications and hardware. For these companies, R&D investments were manifold compared to their capital expenditure and net acquisition investments. The second group comprised companies with a good balance between R&D and capital expenditure investments. Typical examples of this group are

companies in the industrial engineering industry, such as Atlas Copco, Cargotec, Kone, Valmet and AB Volvo. In the third group, capital expenditure investments were the primary way of global growth, being dominant over the R&D investments and acquisitions. Such companies can be found in food and beverages, e.g. Carlsberg and Arla Foods, and companies making products based on direct raw materials, e.g. Stora Enso and UPM Kymmene in forestry and paper and Outokumpu in industrial metals. The fourth group consists of companies using net acquisitions as their global growth strategy, over the alternative strategies of capital expenditure or R&D investments. Such companies can be found in several industries, examples being Yara International in chemicals, Assa Abloy in construction and materials, Svenska Cellulosa in forestry and paper, and Wärtsilä in industrial engineering.

3. CONCLUSIONS AND DISCUSSION

The alternative strategies for building global footprints of the Nordic large manufacturing companies will be analyzed in this work-in-progress research project. The objective is to understand the various forms of building the global manufacturing footprints of firms in different industries under different contingencies. Various theoretical explanations are sought and the prevailing research stream of manufacturing relocation challenged and enriched.

REFERENCES

- Ancarani, A, Di Mauro, C, Fratocchi, L, Orzes, G (2015), "Prior to reshoring: a duration analysis of foreign manufacturing", *International Journal of Production Economics*, Vol. 169, No. 1, pp. 141–155.
- Fratocchi, L, Barbieri, P, Di Mauro, C, Nassimbeni, G, Vignoli, M (2013), "Manufacturing back-reshoring – an exploratory approach for hypotheses development". Paper Presented at the XXIV Riunione Scientifica Annuale AiIG. Milan, Italy, 17–18 October. Available at SSRN: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2333106.
- Zhai, W, Sun, S, Zhang, G (2016), "Reshoring of American manufacturing companies from China", *Operations Management Research*, Vol. 9, No. 3-4, pp. 62-74.