**Tables and Figures**

**Table 1 Comparisons of Gelsomino *et al.* (2016) and our paper**

|  |  |  |
| --- | --- | --- |
|  | Gelsomino *et al.* (2016) | Our paper |
| Time limit set | A specific time frame (2000-2014) | No time limit (1970-2016) |
| Keywords | A selected list of keywords and strings | A comprehensive list of supply chain related and finance related keywords |
| Journals | Major logistics and supply chain management journals and top finance and management journals | AJG 3, 4, and 4\* for content analysis;  No constrain for bibliometric analysis |
| Focus | SCF concepts and solutions | All aspects of SCF |
| Review methods | Content analysis | Bibliometric analysis, network analysis and content analysis |
| Findings | Definitions of SCF reflect the “finance oriented” perspective and the “supply chain oriented” perspective | The two perspectives of SCF are reflected in keywords selection.  Four clusters with different research focus are identified. |
| Gaps and future directions (Numbers refer to the sequences of contents in both papers) | Four gaps/directions: | Seven directions: |
| 1. No general theory of SCF |  |
| (2) Weak empirical-based holistic analyses on the application of SCF | (7) More researches using empirical and case study methods are needed. |
| (3) Few assessment models consider the impact of SCF programs on supply chain financial performance. | (1) SCF of multi-tier supply chains and more complex forms of trade credit policies need to be considered;  (4) More forms of financing mechanisms should be introduced. |
| (4) Lack of tools for choosing SCF solutions for different supply chains and objectives | (3) Scholars needs adjust and extend the research models for SCF practice, and the function of SCF changes |
|  | (2) Assumptions of models can be relaxed |
|  | (5) Combining SCF with sustainable supply chain management |
|  | (6) Combining SCF with specific industry sectors |

**Table 2 The search string and keywords**

|  |
| --- |
| **Supply chain-related keywords:** (supply chain) OR (value chain) OR logistics OR inventory OR procurement OR purchasing OR sourcing |
| **AND** |
| **Finance-related keywords:** finance OR financing OR (trade credit) OR (bank credit) OR (early payment) OR (dela\* payment) OR (advanc\* payment) OR (capital constraint) OR (financial constraint) OR factoring OR (limited liability) OR (cash conversion cycle) |

**Table 3 Inclusion and exclusion criteria in the refinement**

|  |  |
| --- | --- |
| **Inclusion criteria** | **Exclusion criteria** |
| Focus on SCF | Supply chain management not related to finance |
| Peer-reviewed journal paper in English | Finance not related to supply chain |
|  | Non-English language journals |

**Table 4 Top 12 journals contributing to SCF (N=348)**

|  |  |
| --- | --- |
| **Journals** | **Total** |
| International Journal of Production Economics (IJPE) | 39 |
| European Journal of Operational Research (EJOR) | 20 |
| Applied Mathematical Modelling (AMM) | 18 |
| International Journal of Systems Science (IJSS) | 13 |
| International Journal of Operational Research (IJPR) | 12 |
| Computers & Industrial Engineering (CIE) | 10 |
| International Journal of Information and Management Sciences (IJIMS) | 10 |
| Management Science (MS) | 10 |
| Journal of the Operational Research Society (JORS) | 8 |
| Asia-Pacific Journal of Operational Research (APJOR) | 7 |
| Yugoslav Journal of Operations Research (YJOR) | 7 |
| OPSEARCH | 7 |

**Table 5 Top 11 papers by local citation**

|  |  |  |
| --- | --- | --- |
| **Author (year)** | **Local citation** | **Global citation** |
| Goyal (1985) | 187 | 1309 |
| Abad and Jaggi (2003) | 60 | 300 |
| Chung and Liao (2004) | 59 | 233 |
| Teng *et al.* (2005) | 57 | 288 |
| Chung *et al.* (2005) | 54 | 189 |
| Huang (2007) | 51 | 209 |
| Teng and Chang (2009) | 50 | 189 |
| Sarker *et al.* (2000) | 49 | 350 |
| Liao (2008) | 48 | 176 |
| Ho *et al.* (2008) | 48 | 153 |
| Shinn and Hwang (2003) | 48 | 250 |

**Table 6 Top 10 papers by PageRank**

|  |  |  |  |
| --- | --- | --- | --- |
| **Author (year)** | **PageRank** | **Local citation** | **Global citation** |
| Goyal (1985) | 0.01638354 | 187 | 1309 |
| Jaggi *et al.* (2008) | 0.01065293 | 46 | 205 |
| Huang (2007) | 0.01061392 | 51 | 209 |
| Abad and Jaggi (2003) | 0.01048360 | 60 | 300 |
| Teng and Chang (2009) | 0.01030263 | 50 | 189 |
| Buzacott and Zhang (2004) | 0.01016512 | 37 | 579 |
| Huang and Hsu (2008) | 0.01007087 | 47 | 156 |
| Liao (2008) | 0.00999925 | 48 | 176 |
| Ho *et al.* (2008) | 0.00972325 | 48 | 153 |
| Chung and Liao (2004) | 0.00964314 | 59 | 233 |

**(Note: Local citation: citation within the 348 papers; Global citation: citation in all databases)**

**Table 7 Literature classification: the primary research clusters (N=214)**

|  |  |  |  |
| --- | --- | --- | --- |
| **Cluster** | **No. of papers** | **No. of selected papers** | **Area of research focus** |
| 1 | 63 | 34 | Deteriorating inventory model under trade credit policy based on EOQ/EPQ model |
| 2 | 31 | 11 | Inventory decision with trade credit policy under more complex situations |
| 3 | 63 | 25 | Interaction between replenishment decisions and delay payment strategies in the supply chain |
| 4 | 57 | 26 | Roles of financing service in the supply chain |
| Total | 214 | 96 |  |

**(Note: selected papers refer to papers published in journals of ABS Grade 3,** **4 and 4\*)**

**Table 8 The lead papers using a PageRank measure**

|  |  |
| --- | --- |
| **Cluster 1** | **Cluster 2** |
| Goyal (1985)  Abad and Jaggi (2003)  Liao (2008)  Ho *et al.* (2008)  Chung and Liao (2004)  Ouyang *et al.* (2009)  Huang (2007)  Teng (2009)  Haley and Higgins (1973)  Chung *et al*. (2005) | Huang (2007)  Teng and Chang (2009)  Huang and Hsu (2008)  Mahata (2012)  Chang *et al.* (2010)  Kreng and Tan (2011)  Su (2012)  Thangam (2012)  Mahata and Goswami (2007)  Soni and Patel (2012) |
| **Cluster 3** | **Cluster 4** |
| Jaggi *et al.* (2008)  Chen *et al.* (2014)  Chern *et al.* (2013)  Wu *et al.* (2014)  Zhou *et al.* (2013)  Ouyang and Chang (2013)  Wang *et al.* (2014)  Tsao and Sheen (2008)  Chen *et al.* (2014)  Zhou *et al.* (2012) | Buzacott and Zhang (2004)  Raghavan and Mishra (2011)  Lee and Rhee (2011)  Kouvelis and Zhao (2012)  Gupta and Wang (2009)  Jing (2012)  Chen (2015)  Protopappa-Sieke and Seifert (2010)  Chen (2012)  Zhang *et al.* (2014) |

**Note: only papers published in journals of ABS Grade 3, 4 and 4\* are included.**

**Table 9 Key contributing journals in each research area (N= 214)**

|  |  |  |
| --- | --- | --- |
| **Clusters** | **Top journals** | **Number of papers** |
| 1. Deteriorating inventory model under trade credit policy based on EOQ/EPQ model | International Journal of Production Economics | 15 |
| European Journal of Operational Research | 7 |
| Journal of the Operational Research Society | 4 |
| Computers & Operations Research | 3 |
| Production Planning & Control | 2 |
| 2. Inventory decision with trade credit policy under more complex situations | International Journal of Production Economics | 5 |
| European Journal of Operational Research | 2 |
| Expert Systems with Applications | 2 |
| 3. Interaction between replenishment decisions and delay payment strategies in the supply chain | International Journal of Production Economics | 12 |
| European Journal of Operational Research | 6 |
| Computers & Operations Research | 2 |
| Journal of the Operational Research Society | 2 |
| 4. Roles of financing service in the supply chain | Management Science | 5 |
| European Journal of Operational Research | 5 |
| International Journal of Production Economics | 5 |
| Operations Research | 2 |
| Production and Operations Management | 2 |

**Table 10 The number of published papers in each cluster (1973–2016)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Year** | **Number of published articles** | | | |
| **Cluster 1** | **Cluster 2** | **Cluster 3** | **Cluster 4** |
| 1973 | 1 |  |  |  |
| 1981 |  |  |  | 1 |
| 1985 | 1 |  |  |  |
| 1986 | 1 |  |  |  |
| 1987 | 1 |  |  |  |
| 1994 | 1 |  |  |  |
| 1995 | 1 |  |  |  |
| 1999 | 1 |  |  |  |
| 2000 | 1 |  |  |  |
| 2001 | 2 |  |  |  |
| 2002 | 2 |  |  |  |
| 2003 | 3 |  |  |  |
| 2004 | 5 |  |  | 2 |
| 2005 | 8 |  | 1 |  |
| 2006 | 3 |  |  | 1 |
| 2007 | 8 | 2 |  |  |
| 2008 | 5 | 1 | 3 | 2 |
| 2009 | 5 | 6 |  | 9 |
| 2010 | 5 | 3 | 5 | 4 |
| 2011 | 2 | 6 | 2 | 8 |
| 2012 | 3 | 7 | 9 | 7 |
| 2013 | 3 | 5 | 14 | 4 |
| 2014 |  | 1 | 14 | 5 |
| 2015 |  |  | 9 | 8 |
| 2016 | 1 |  | 6 | 6 |
| Total | 63 | 31 | 63 | 57 |

**Table 11 Identifying research directions in SCF research**

|  |  |  |
| --- | --- | --- |
| **Category** | **Gap/issue** | **Research direction** |
| Number of SCF levels | Focus on one-level or two-level trade credit | Studying multi-level SCF |
| Assumption for modeling | Existing assumptions are strict. | Relaxing existing assumptions and introducing new assumptions |
| Models and functions of SCF | 1. Certain demand is limited. 2. Only considering cost reduction 3. Limited forms of models 4. Only as a marketing tool | 1. Considering more forms of demand 2. Considering profit increase 3. Adopting game theory 4. Working as a coordination tool 5. Considering co-operation |
| Forms of financing | Lack of financing forms | Studying the impact of tax or exchange rates on SCF |
| Link to SCM topics | Few papers study the sustainable SCF. | Relating sustainability with SCF |
| Industry sector | Few papers consider SCF in a specific industry. | Studying SCF in agricultural sectors |
| Research method | Dominated by modelling | Calling for empirical analysis e.g. case study, statistical analysis |

**Fig. 1 Publishing trend in SCF (N=348)**

|  |  |
| --- | --- |
| ../图片%201-2.png | ../图片%202-2.png |
| (i)1973–2006 | (ii)1973–2008 |
| ../图片%203-2.png | ../图片%204-2.png |
| (iii)1973–2010 | (iv)1973–2012 |
| ../图片%205-2.png | ../图片%206-2.png |
| (v)1973–2014 | (vi)1973–2016 |

**Fig. 2 The evolution of SCF research over time**

(i)1973–2006, (ii)1973–2008, (iii)1973–2010, (iv)1973–2012, (v)1973–2014, (vi)1973–2016