

# **A structured literature review of the Supply Chain practices in Food Processing Industry**

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## **Abstract**

A diversity of sources of literature concerning the supply chain management strategies necessitates a systematic procedure in food processing industry. As such, when scoping out a concept, the structured literature review (SLR) can be considered as a means of highlighting the key principles, bottlenecks and management strategies being followed by leading organizations. This paper reports an SLR of food supply chain (FSC) practices. Authors selected the relevant literature of the food processing industry with reference to supply chain subjects such as performance analysis, food safety, logistics and transportation practices, traceability, information system and decision-making strategies. An SLR methodology has been employed in this paper to find out the relations, conflict and research gaps in literature concerning FSC practices. Findings of paper show that the higher competence in FSC can be achieved through food safety and security, high product quality, on-time delivery of products, and better order-fill-rate.

**Keywords:** Structured literature review (SLR), food processing industry, supply chain, logistics & transportation, coordination.

## **1. Introduction**

Supply chain management (SCM) is an integrated approach for managing the product flow of a distribution channel from producer to end consumer, whereas, the food supply chain (FSC) is considered as a composite network of many entities linked from 'farm to fork'. Nahmias (1982) described the perishable food supply chain as those that undergo change in storage so that in time and become partially or entirely unfit for consumption. Perishable products makes a unique situation for how a supply chain needs to be designed so as to properly schedule and deliver the products in a timely manner. Shortening lead times has shown to reduce work in progress and inventory as well as to improve responsiveness and flexibility in logistics (Persson, 1991). Strategically, rather than competing within the low-cost market segment, many food producers are working on different marketing strategies to target the rural market. This has led the industries to implement a range of sustainable practices like local sourcing, reuse, recycling, and green purchasing (Mor *et al.*, 2016). Thus, the industries competing and cooperating in such supply chain practices have to deal with several risk sources that have to be properly managed when planning their activities. Food processing industries in such case have observed vast changes in their structures like market globalization, technology improvement, smaller lifetime of products and diversification of customer demand (Lindgreen and Hingley, 2003; Fattahi *et al.*, 2013). Dairy industry needs significant development in their competitiveness status so as to meet the high quality, consistency and safety standards of the export market (Bhardwaj *et al.*, 2016).

The growing concern over food security, growing interest in traceability, freshness and quality combined with highly perishable nature of products require attention when choosing SC strategy. The Juran's problem solving technique and lean tools can help in the eradication of the causes of poor-productivity irrespective of the type of industry (Rahul and Kaler, 2013). Food processing sector have to deal with the government policies, customer demands & shareholders' interests and reduced costs, wastage reduction and integration in all processes are the fundamentals of their success. Each stakeholder in SC must intend to turn out in a dynamic and competitive way for sustainable business operations (Mor *et al.*, 2015). On the other hand, perishable food industries need to provide products as fast as they can to maintain their competitive advantages. Varied characteristics of this type of industry including the need for short time distribution between producer and retailer makes it challenging to establish a unique way of managing supply chains in this context (Bourlakis and Weightman, 2004). Quality management appears to be the most important factor in dairy industry followed by inventory management, supplier management and technological innovations (Mor *et al.*, 2017).

Thus, first aim of this paper to explore the key supply chain management strategies in food industry. Second, aim of this paper is to fill the research gap in literature. The rest of paper is organized as follows. Section 2 discusses the

methodology, while section 3 is the analysis part. Section 4 comprises of discussion, and section 5 is conclusions along with limitations and future scope in this area.

## **2. Methodology**

A literature review is a research approach of briefing many words of text into a smaller set of contents (Krippendorff, 2004; Weber, 1990). Structured literature review (SLR) aims to address the issues in a particular research area through *identifying*, *evaluating* and *integrating* the outcome of the relevant available studies leading to various research questions. An SLR study must address the following (Baumeister and Leary, 1997; Bem, 1995):

- Establish to what extent the prevailing research has been developed to explain the problems of a particular area;
- Find out the relations, conflict, and research gap in literature along with their possible reasons;
- Formulate the conceptualization of problem;
- Present your remarks, assess, extend, or develop a new theory;
- Define the future research directions for a particular area.

In this paper, the target population is the articles published in various scientific database like Google Scholar, Scopus, Web of Science, DOAJ etc. The articles have been searched by using the title, abstract field and keyword. These databases offered many articles which have been reduced by applying the limiting criteria, for example, year of publication, research area, type of document etc. (Mor *et al.*, 2015; 2016). To enable a clear information basis, the articles concerning various supply chain subjects such as performance analysis, food safety and security, logistics and transportation practices, and decision-making strategies have been selected. The articles were classified on the basis number of year of publication, subject and area of research.

## **3. Analysis**

The structured literature review has been carried out in a tabular for so as to present a clear vision of the objective(s), findings, conclusions and research gaps in the studies as follows (Table- 1).

Table- 1. Literature Review of Supply Chain Management Practices

<b>Author(s) / Year of Publication</b>	<b>Objective of paper</b>	<b>Methodology / Tools used</b>	<b>Results / Findings</b>	<b>Conclusion</b>	<b>Research gap / Limitation</b>
<i>Chandel et al. (2015)</i>	To determine the competitiveness and power exercised by different players, and to understand the complexity of inter-linkages in the value chain.	Value chain analysis to the Indian dairy sector through qualitative and quantitative data analysis.	Areas of policy interventions in dairy sector may be the improving veterinary services; modernization of marketing, reduce transactions cost; and encourage clean milk production & marketing to meet consumer demand.	VCA helps to analyze the structure, integration, competitiveness, actors and governance of different links/stages in the dairy value chain and to make policy interventions to ensure that small milk producers become part of the modern production and marketing system.	Further study is expected to look deeper into the drivers of policy interventions of other supply chains.
<i>Cosimato et al. (2015)</i>	To investigate the role of emergent green technologies in making logistics organizations finally green & competitive.	DHL case study analysis has been conducted for economic performance & corporate competitiveness, and further tested through SEM technique.	Innovation based on emerging green technologies are strictly related to the development of more sustainable approach to SCM based on reliability, performance, cost saving, quality, energy efficiency.	Logistic organization can achieve environmental goals and beat competitors by cooperating with stakeholders, and must develop a concrete green orientation, in order to get their corporate reputation stronger	The findings cannot be generalized to all logistic organizations, and needs to be empirically tested through comparative studies based on large sample.
<i>Lemma et al. (2015)</i>	To investigate the determinants of supply chain coordination of milk and dairy industries.	Applied the Factor analysis and tested the results using Confirmatory Factor Model	All indices were significant and greater than the threshold value, and then we can state that the results are in a good fit.	Firms should realize that its individual profitability and competitiveness depends heavily on supply chain coordination with its business partners.	Future studies should put into consideration that supplier and final customers need to be involved as a major input for the study.
<i>Subburaj et al. (2015)</i>	To study the issues in improving the operational efficiency of the dairy supply chain in Tamilnadu.	Applied SWOT analysis, and studied the major issues influencing the dairy farming through literature survey, field study and research experience. The data has been collected through a questionnaire method and video camera.	Farmers expect an institutional support to grow fodder and supply it to milk pourers through Dairy Co-operative Society's (DCS) which reduces feed cost a lot. DCS can identify farmers to cultivate fodder through 'cluster farming', and marketing through women self-help groups (SHG).	Policy makers needs to pay attention to the creation of special dairy zone; implementing dynamic milk procurement method; strengthening cooperative societies; creation of feed bank and increasing fodder productivity; and integrated animal health plan and info technology.	Laying a roadmap for implementing the recommendations needs future work.

<i>Ayodele et al. (2014)</i>	To identify the research challenges in knowledge optimization strategies for effectiveness in practice, considering the end-consumer's knowledge, preferences and behaviors.	Literature review on Pro-Quest and Web of Science databases published during the 2003-2013 period.	The study serves as an initial effort into an investigation about the fundamental challenge of how the food industry can optimize the knowledge to dynamically respond to the diversity of changing consumer attitudes and behaviors.	The attributes of perishable food chains suggest that this concept may prove useful and worthy of investigation along food chains. This is particularly relevant for extending the research lens to accommodate dynamic and changing consumer food preferences.	An empirical investigation into the influence of collective sense-making on inter-firm transparency within the food industry may be performed. Role of the info management and knowledge dynamics in the improvement of consumer confidence may also be studied.
<i>Beske et al. (2014)</i>	To describe how sustainability allow companies to maintain control over SCs and achieve competitive advantage by implementing dynamic capabilities (DCs).	Literature review and content analysis.	Sustainable practices and DCs in supply chains can be used among others to enhance traceability and to fulfill the customer demands.	Study proposes DCs as: knowledge assessment, knowledge acquisition, ability development, search, selection and integration of partners, supply chain link foundation, product and process development, relationship management, and reflexive control.	Further research is needed to extend the operationalization of the existing conceptual frameworks.
<i>Dries et al. (2014)</i>	To evaluate the determinants of SC relationships, the provision of supplier support measures and the role that support measures plays in stimulating investment by suppliers in emerging economies.	Survey evidence for 300 commercial dairy farms in Armenia. The identification of potential determinants of supply chain relationships and support programmes based on literature on SCM and transaction cost economics.	Positive determinants of supplier support programmes are the degree of exclusivity of the buyer-supplier relationship, initial capital of the supplier, co-operation between suppliers, and foreign ownership of the buyer. Support programmes are less likely to be offered in very competitive environments	The negative competition effect suggests that buyers are constrained in their ability to monitor use of the provided services in an environment where a lot of buyers are competing for the same supply. Improving the enforcement capability of companies under these circumstances is an important challenge for the industry and policy makers.	Research is limited to cross-sectional data for a single country, and further testing would help assess the generalization of the findings.
<i>Farah et al. (2014)</i>	To analyze the competitiveness of production systems in the cereal steppes of Castile, Spain, through indicator of production system's profitability.	Diagnostic analysis: direct observation & interpretation, and first hand quantitative & qualitative data collecting through interviews with key actors.	Average competitiveness of the production systems located in 'open fields and valleys' and 'interfluves' is higher than that of the systems of the 'highlands' sub-area.	Mixed farms are less dependent on external production factors, and the subsidies do not determine the level of competitiveness. Future aids from the CAP reform will not modify the current competitiveness.	More empirical research is required to validate the proposed framework, and to develop principles for individual firms.

<i>Nicholas et al. (2014)</i>	To develop innovations within low input and organic dairying in four European countries, in order to overcome the identified constraints.	Q methodology to determine the attitudes of low input and organic dairy supply chain members.	Preference of low input and organic dairy supply chain members in Belgium, Finland, Italy and UK regarding innovations to improve the sustainability of their SCs lies in developing innovations.	There is no interest within these sectors for innovations based on biotechnology, and to improve forage quality.	Further research is needed to confirm the findings in other countries, and to fully investigate the antecedents of these attitudes in larger samples.
<i>Singh (2014)</i>	To assess the effectiveness of Coordination in Food supply chain practices	Competitiveness index model	It is observed that agriculture sector is facing major challenge due to unprofessional approach and lack of basic facilities and infrastructure.	Organization can also develop an effective strategy to map its supply chain and eliminate various losses or wastes occurring at different stages of the value chain	<i>This framework can be also useful for supply chains from other sectors to quantify its effectiveness.</i>
<i>Verma et al. (2014)</i>	To highlight the select enablers for supply chain competitiveness in the Indian manufacturing sector.	An integrated approach of literature review and exploratory interviews with eminent professionals from the supply chain area in industries, academia and research.	Author recognized the enablers of SC competitiveness, a comprehensive description of the enablers and modeling the enablers to better understand the competitiveness.	Various enablers identified in the review are the coordination, supply chain collaboration, cost efficiency, quality management, and supply chain flow cycles efficiencies.	The proposed model is not tested, and can be empirically tested using Interpretive Structural Modeling or Structural Equation Model.
<i>Amorim et al. (2013)</i>	To expose the trade-offs by developing risk-averse production planning models, and to assess the suitability of financial risk-measures in the production planning of perishable food goods.	The performance of a risk-neutral attitude is compared to the performance of models taking into account the upper partial mean and the conditional value-at-risk.	Insights show the positive impact of the risk-averse models in operational performance indicators, such as the amount of expired products. The results suggest that it is possible to reduce the percentage of expired products that reach the end of their shelf-lives by using the risk-averse models.	The advantage of conditional value-at-risk model is evidenced, as it is able to dominate the solutions from the upper partial mean for the spoilage performance indicator. The advantages are related to a sustainable production planning.	More research should focus on understanding the impact of strategic decisions (e.g. facility location) in the risk management of the food supply chain and studying other risk-averse approaches (e.g. second-order dominance constraints).
<i>Arifin (2013)</i>	To examine the competitiveness and sustainability of key agri. commodities in Indonesia, and to recommend policy options to improve the performance of value chains.	Revealed comparative advantage (RCA) complemented by in-depth interviews and discussions with competent resource persons and development partners.	The RCA value of natural rubber is 36.6, far higher than the RCA of cocoa of 14.0, cashew of 11.6, coffee of 6.1, tea of 5.4 and let alone mango. RCA value of mango is 0.12, indicating that competitiveness level of mango is also very small.	Improving the competitiveness should start at the very basic level of better farming practices to improve productivity. The potential miss-links between the development of environmental service markets and global buyer-driven initiatives on environmental governance, and collaborations needs attention.	The research approaches may be further explored for other agri-food commodities.

<i>Boudahri et al. (2013)</i>	To reform the distribution network of chicken meat in city of Tlemcen, for the market instability prices, lags behind the delivery, food safety, and envi. costs.	A two step mathematical model has been built and solved in a sequential manner through LINGO 12, and to obtain exact solutions by using Branch and Bound with default parameters of the solver.	The proposed integrated approach permits to minimize the total costs of the agri-food supply chain not only in terms of economy but also in terms of public health (ecology).	Once the customers have been grouped into clusters, the slaughterhouses to set up, to close or to reopen have been located, and the clusters of retailers have been allocated to them.	Methodologies such as heuristics and meta-heuristics to solve real life problems may be applied.
<i>Prakash et al. (2013)</i>	To verify how balance score card (BSC) approach may be used to measure FSC performance, in Madhya Pradesh.	A multiple item scale based on BSC approach has been proposed, in the context of financial, customer, internal business processes and learning and growth.	The importance of various BSC perspectives is different from that identified in the context of a developed country, which arise due to the differences in infrastructure, variable milk production, poor flow of info, unavailability of cold transportation infrastructure.	Building sourcing capabilities, developing robustness in operations, building transparency and managing traceability and information flow would transform processing competencies of the Indian dairy operators.	A study spanning across various states would strengthen generalization of findings. Future researchers may conduct similar studies in other developing countries for validation and updation of performance indicators.
<i>Turi et al. (2013)</i>	To assess the performance of the food supply chain by considering economic, social and environmental development	Systematic approach for logistics and transport management	The Perfect Order Percentage and Total Validity Period in Transport are among the most important performance indicators for the food industry.	The food industry plays a key role in assuring a healthy development of the consumers, a sustainable economic growth and more attention to environmental issues.	The study may be further explored
<i>Mor et al. (2012)</i>	To analyze the impact of the participation in the modern SCM practices, and to investigate technical efficiency of small dairy farmers in India.	Stochastic production frontier function approach for measuring the farm level technical inefficiency.	There found a variation in the level of technical efficiency of the member dairy farmer and non-member dairy farmers that turns out to be 79% and 66%, respectively, thus, increasing the milk production by 21% and 34%.	SCs can increase the efficiency of dairy farmers, and it needs expansion in SC network of the cooperative milk societies for enhancing the efficiency and profitability of dairy sector along with the more crossbred livestock and easy finance.	The study focuses the milk production sector in two states only, and further be investigated in other areas.

<p><i>Barbe et al. (2011)</i></p>	<p>To study the potential role of vertical integration as a suitable strategy to improve the competitiveness of British dairy farmers.</p>	<p>Qualitative data analysis</p>	<p>Vertical integration is too costly for many dairy producers and represents a major shift from current practices. Those wishing to implement a vertical integration strategy have to change the management structure, divisional structure of firm and info. flow.</p>	<p>Vertical integration strategy may be a potential solution to the problems of innovation because it allows increased responsiveness to consumer needs as communication can move through the supply chain more effectively.</p>	<p>Relevance of vertical integration strategy in overcoming the challenges of other dairy producers may be further explored.</p>
<p><i>Kumar et al. (2011)</i></p>	<p>To access modern milk marketing chain by collecting data at the farm level in two states, viz. Bihar and Punjab.</p>	<p>Descriptive statistics of the data collected in two states viz. Bihar and Punjab in the year 2007 at the farm level.</p>	<p>In spite of the growing presence of modern milk supply chains, the traditional milk supply chain is still dominant in the Indian milk market. It is even more pronounced in less-developed states like Bihar. However, the traditional milk SC is being replaced slowly with the commercialization of dairying.</p>	<p>Modern milk SCs seems to have an inclusive structure, and the resource-poor dairy farmers are not excluded from the modern milk supply chain. Traceability and food safety issues further strengthen the modern milk SCs, and its scalability depends on the development of milk collection and transportation facilities.</p>	<p>The same study may be conducted in other states.</p>
<p><i>Apte (2010)</i></p>	<p>To study the causes and remedies of fresh produce supply chain disruptions resulting from contamination.</p>	<p>Literature review and data collection in the region from personnel involved in agriculture (case study).</p>	<p>Major contributing factors to vulnerability of disruption due to contamination of a fresh produce supply chain are product type, topological structure, exposure to contamination, product traceability, and communication.</p>	<p>Large-scale growers can minimize SC network vulnerabilities by protecting distribution hubs to be cost-prohibitive for small-scale growers, and better communication should be a prominent strategy for damage control; only achievable with effective traceability.</p>	<p>The research could also be extended by investigating other operational contributing factors, such as demand patterns, inventory levels, ordering cycles, and operational processes.</p>
<p><i>Balkytė et al (2010)</i></p>	<p>To set future research area of competitiveness theory development concept and existing research tendencies.</p>	<p>Literature review and classification of competitiveness research areas.</p>	<p>Research studies on competitiveness focuses on the different categories of analysis, and findings may contribute for development of further research of competitiveness.</p>	<p>Categorization of the competitiveness research areas should be generally adopted, and for developing the new concept of competitiveness, it is necessary to critically analyze existing studies.</p>	<p>The findings points towards the conclusion, and no clear definition, model of competitiveness or international assessments method have yet been developed.</p>
<p><i>Smit (2010)</i></p>	<p>To clarify the meaning of intl. competitiveness at the country level in the context of Porter's (1990).</p>	<p>Literature review related to trade (economic perspective) and international competition (management perspective).</p>	<p>Both the traditional and new theories of trade confirm that countries engage in international activities because of the advantages that result from such activities.</p>	<p>There exist gains from trade that do not come at the expense of other countries, and no reason to believe that countries, like firms, are in some sort of competitive battle mutually.</p>	<p>The focus on the Diamond Framework as theory seems to be wrong in terms of the value of its application.</p>

<i>Berkum et al. (2009)</i>	Comparative analysis of the structures and performances of dairy supply chain in 20 south-eastern and eastern European countries.	Comparative analysis.	Industry performance indicates positive tendencies in the Baltic States and Poland, and needs vast investments to improve product quality and productivity, the industry has immense problems with food quality and safety.	Lack of good quality milk is a major barrier to the enhanced competitiveness of the dairy supply chain. While, technology updates and skills improvements are necessary to improve yields, gross margins, labor productivity and quality of produce at both the farm and industry levels.	Assessments of the economic situation in the sector fall short due to available statistical data, which may be further explored.
<i>Sagheer et al. (2009)</i>	To present a conceptual framework and set of propositions to analyze competitiveness of India's agri-food chain.	Value chain analysis (VCA) and Porter's diamond at the industry level and Momaya's asset-process-performance (APP) model at the firm level.	The human and non-human components are more like members of a network where action of each has an impact on the other, and explores the synergy of VCA and competitiveness management. The role of national govt. can be significant in the development of an industry.	Role of market forces in developing economies may vary over a period, but the govt. could be a stable factor through its policies and standard setting procedures. While, global retail chains bring competition from importers in domestic markets thus threatening the survival of the domestic producer.	There is a dearth of literature on India's agri-food sector, and the framework can be further validated with an empirical study and replicated in other markets.
<i>Carraresi et al. (2008)</i>	To analyze the competitiveness, conceded through trade indices.	The analysis carried out by assessing trade indices (EMS, RCA, RXA, RMA, and NEI). Cluster analysis was also run to classify group of countries	Results indicate that Spain has gained highest profit of market integration and competitiveness, followed by Germany and Italy. UK had worst performance.	Profits can be gained through high level of competitiveness and integration of process/product.	These research methodological approaches may be applied to other agri. commodities also, which are missed in this paper.
<i>Jin et al. (2006)</i>	To explore the competitiveness in the Apparel industry	Porter's Diamond Model and a generalized Double Diamond Model	The study investigate how the Korean diamond system can take advantage, overcome unfavorable environments, and convert resources to competitive advantages for its continued growth.	Internationalization of the Korean apparel industry will make each competitive determinant more active and will contribute to creating a self-reinforcing cohesive system.	The methodology can be applied to other sectors to assess the competitiveness.
<i>Sahay et al. (2006)</i>	To analyze the research conducted for assessing the current state of SC practices followed by Indian organizations, and identify key areas of competitiveness.	Data collected through survey questionnaire for the three dimensions have been used to assess the alignment of supply chain strategy with the overall business strategy through statistical analysis.	This supply chain alignment model provides a framework for realizing true SC efficiency, competitiveness. However, in every case Indian organizations need to act fast to capitalize on these opportunities to be competitive with global market.	Most of the Indian organizations have aligned their SC objectives with their business objectives, processes and management focus. Enhanced level of competitiveness would require Indian organizations to achieve the agenda set by the business strategy.	Further research should focus on assessing the current level of SC processes, identifying critical areas for the business, and establishing specific performance measures for supply chain efficiency.

<i>Singh et al. (2006)</i>	Competitiveness Analysis of a Medium Scale Organization in India	Assets-Processes-Performance model and SWOT analysis	Competitiveness index value may range between -3.71 to 3.71, and the Competitiveness index of SLL shows that presently SLL is highly competitive organization.	Organizations should not target only end results but should develop its enablers also such as assets, competitive strategies and processes to overcome on various pressures and constraints.	To generalize the findings of this study, more case studies of similar nature should be carried out
<i>Taylor (2006)</i>	To show how VCA have highlighted opportunities for strategic changes in a UK agri-food SC, and to present an initial model of an integrated SC with lean tools.	Applied VCA for case studies in two red meat industries, involved teams of managers from the companies in the chains together with facilitation by the researcher.	VCA along with lean provide a powerful base for the analysis and improvement of SCs. Value chain management requires a different business model, in which improved profits arise from cooperation rather than an ability to play the market or exercise power over SC partners.	It is clear from this research that there is significant opportunity to improve the efficiency of pork chains both operationally and strategically. However it is equally clear that realization of the benefits will require some fundamental shifts in business philosophy.	Further studies could be undertaken of other agri-food chains in meat and in other sectors, to further validate the findings and recommendations.
<i>Issar et al. (2003)</i>	To examine the factors those have driven the Australian fresh milk industry in recent years and key strategies for SC success.	Literature review, fieldwork by semi-structured interviews at middle to senior management level. The data has been analyzed using software NVivo ver. 2.0.	Milk processors and producers are realigning themselves along the SC to meet the market expectations. Factors like increasing consumer awareness, food safety, innovation, environment, integration and rationalization of supply base are adding drive to this transformation.	It is clear that the dominance of food retailers in food supply chains in Australia is growing, however, it is to be seen whether retailers in Australia recognize the opportunities to drive value and not only volume in the fresh milk category.	Further analysis of data is expected to look deeper into the strength of drivers of change and the implications of supply chain integrity on the actors in the supply chain.
<i>Wysokińska (2003)</i>	To present relationship of competitiveness of the economy & its individual sectors, and productivity & sust. development.	Literature review on Knowledge Assessment Methodology (KAM).	Higher productivity leads improved competitiveness, and is particularly important for more successful competitiveness on markets open to international competition, as it brings long-term improvements.	Higher productivity offers a better use of competitive advantages, which are thus no longer limited to the availability of natural resources in the economy and global competition.	Author considered the KAM approach to present relationship, while other similar tools may also aids the findings.
<i>Hobbs et al. (1998)</i>	To assess the competitive strengths, weaknesses, pressure, opportunities, facing the Danish pork supply chain.	SWOT analysis approach is adapted to provide an analysis of the competitive position.	Co-ordination and co-operation between SC players is the success factor behind Danish pork industry, particularly in demanding Japanese market & other exporters have difficult to penetrate.	Success in SCs may be achieved by coordinated approach to production, processing and marketing built on an understanding of the requirements of different markets, a dedication to quality, and well-organized co-operative industry structure.	SWOT approach could also be extended by investigating other similar supply chains.

#### **4. Discussion**

This paper provides a summary of studies published recently in the area of SCM practices in food processing sector. One of the qualities of this paper is the theoretical framework used. The reviewed articles present a sound hypothesis base for various SCM subjects. The conceptual framework established to classify the selected articles show that about 46% articles framed SCM as a process, 20% as a system approach, 8% as a management activity, and rest as a business strategy. Out of the reviewed articles, about 95% articles are related to food processing industry. Further, the researchers like Mor *et al.* (2015; 2016; 2017), Bhardwaj *et al.* (2016), Sharma *et al.* (2017) etc. have explored the issues of high wastages and inefficiencies in food processing sector.

#### **5. Conclusions**

This paper starts with filling the gap in literature by considering the articles published in various database in the research area of supply chain management practices in food processing industry. The reviewed articles were analyzed through a structured literature review approach. Studies are reviewed for objective(s), year of publication, findings, conclusion, and research gap for respective article. The comprehensive literature review show that the the higher competence in food supply chain can be achieved through food safety and security, high product quality, on-time delivery of products, and better order-fill-rate. In conclusion, the research methods revealed in the reviewed articles can also assist the dairy industry sector to achieve a high level of competitiveness and leanness.

##### **5.1 Limitations and Future Scope**

The current paper has some limitations that authors might want to recognize. The principal restriction is the arrangement of selected papers. Authors recognize that there can be numerous different approaches to sort the articles. Such an examination can be applied to other organizations so as to bring out the key supply chain management strategies irrespective of the types or sector.

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