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ASSESSMENT AND CREATION OF LIVESTOCK SUPPLY CHAIN MANAGEMENT

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ABSTRACT

Turkey, including different climate structures, the presence of a variety of animals from different species and breeds and a large part of population still living in rural areas, is in a position that livestock issues should be given specific attention. However, in recent years, in the share of total agricultural production, animal production increased steadily in all developed countries, such an increase could not be achieved in Turkey. Since the beginnings of 2000's meeting the demand for more individual based products, customer specific product variants and shortest delivery times has increased their significance. This framework is going to own an environment and agents, and these agents have to take their own decisions randomly to obtain much objective results. Therefore, the framework have to be done under the circumstances of an agent-based simulation approach. Livestock supply chain constitutes the main part of the livestock management, so the simulation basically works under the circumstances of the properties of this supply chain. The parameters can be expressed such as centralization & decentralization, environmental effects, complexity, customer satisfaction, product variation, democratization of design and open innovation, market and customer proximity, usage of resources, regionalism and authenticity, energy saving, sustainability. In this study, agent-based simulation model was established by considering the seven parameters in livestock supply chain management. In addition, the experimental design was used to determine which parameters had an impact on supply chain management. In this context, it will be possible to make an inference as to which variables have an impact on the results showing the course of livestock. The aim of the study is the creation of the general framework of livestock supply chain management due to the topics of agent based modelling and design of experiment

1. INTRODUCTION

Turkey can be classified at high place in the world ranking in terms of animal existence, however, fall behind the developed countries in terms of yield obtained from the animal products. Among the main reasons for this are; a large part of the low yielding animal populations, poor environmental factors and insufficient maintenance-feed conditions. Despite significant improvements in the productivity of the result unit, the breeding works and incentive measures implemented for many years in our country have not yet reached the desired level and a balance between animal products supply and demand could not be established. Livestock development is of great importance in terms of nutrition of the country's population on an adequate and balanced diet. On the other hand, most of the agricultural enterprises in Turkey are engaged in plant and animal production together. In addition to this contribution to the livelihood of Gross Domestic Product (GDP), there is also a contribution that cannot be underestimated in terms of the raw material industry of the domestic industry and the export opportunities. The factors that are effective in developing the production in the livestock sector in Turkey (and also in the province basis), the necessary measures to be taken in the short, medium and long term and the solution proposal are discussed under *Table 1* the following headings.

Distribution management constitutes an important part of the supply chain and logistics management. This significant part allows movement of products, services, information and funds which constituted in a distribution network and chain between various points. However, determining the direction of the distribution decision is today's one of the most important factors "Globalization". Because, effective supply chain management come up with this term, constituted along with complicated and complex product life cycle.

In this study, distribution techniques are going to be used for simulation part. Therefore, the studies made on this topic become important to move forward in this area. Also, it discusses the reasons for the weak adoption of these approaches by industry and points out the challenges and research opportunities for the future. The frameworks are studied in detail to make a clear study of agent based modeling and design of experiment. The main idea in here is to determine the general structure of model and designing the main effects, interactions and results in here. When the simulation part is over, to get optimal condition and standards design of experiment is going to be used. All the factors are going to be between 26-30 due to the structure of the system. Other features are going to be used for creating the simulation of the system more realistic. From results which approach is better than the other one is seen.vIn the first section, main topics of livestock supply chain in Turkey is underlined and the summary of the study stated. In the second section, general studies about the topic has been stated. In the third section, the methodologies are given and how the system is created given in detail. In the fourth section, the parameters and the dynamics of them stated at the last section the frameworks and conclusion of the study are given.

Table 1. Issues & Explanations of Livestock Sector

Issues	Explanations
Socio-economic Structure of Animal Production Enterprises	Agricultural enterprises, generally plant and animal production activities, are carried out together in Turkey. In fact, according to the results of the General Agricultural Census 1991, 72.14% of the existing 4,068,032 agricultural enterprises in both crop and animal production activities as well as to give the place together, conducted livestock with plant production. East and Southeast are the regions in mostly based on pasture to be run establishments bovine weighted in Anatolia. (Turkish Statistics Institute "TSI", 2015).

Development Status of Meadow-Pasture and Feed Plants	In order to develop the country's livestock, it is imperative to give the required feed to the cultivation of forage crops and pasture-meadow cultures. Because animal husbandry and forage crops agriculture and pasture-meadow culture are closely related to each other and should always be considered together. In terms of feed crops, Turkey possess a great variety of climates and soil. However, the cultivation of forage crops in field agriculture is not sufficient.
Situation of Animal Health and Diseases	Animal breeding constitutes a significant place of the period of development in Turkey to get the desired level of animal breeding increase and this level of raising causes a special need to control animal diseases. Veterinary services in Turkey cannot reach its purpose sufficiently. The state institutions in charge of preventive medicine services are inadequate due to staff, equipment, sanitary equipment and financial facilities. (Development of Ministry, 2014)
Marketing of Animal and Animal Products	Market organizations of animal products must be improved so that animal products can be transported from their place of production to a convenient, easy and abundant center where they are consumed or processed. Animal products are graded, processed and evaluated, packaging, pricing, handling, storage, reduction of risk, etc. The degree to which products are benefited can be increased by making marketing services better. It cannot be said that a marketing policy that promotes the production of animal products in Turkey, improves product quality and improves marketing services cannot be seen (Ministry of Development, 2018). The technical regulations governing the marketing services to be carried out on animal products are insufficient. Animal products are kept within the scope of the support price policy.
Animal and Animal Product Prices	Prices of livestock and animal products in Turkey are generally based on supply and demand. Especially in the formation of livestock prices, current prices in big markets and livestock stock exchanges in commodity exchanges are effective. The fact that most of the businesses are small businesses weaken the bargaining power of the producers in the face of strong buyers, so that it is not possible for the prices to be under normal conditions. (Development of Ministry, 2014)
Organization in Livestock Sector	In Turkey, animal husbandry is often carried out in small family businesses, along with other agricultural activities. Considering the general economic and demographic structure of Turkey, this situation will not change for a long time. In the organization of the livestock sector; associations, cooperatives and boards. In developed countries, the share of the livestock sector within the general agricultural sector is greater than that of vegetative production, and there is a great influence of the growing of growers through such organizations. Cooperatives are the most common and widespread organization model of the producers in the market
Credits and Financing in the Animal Husbandry Sector	The state plays the natural role in credit and financing, in the realization of development and breakthroughs for animal husbandry. The inefficiencies of autonomy of livestock enterprises make the state more and more necessary for this issue. Animal husbandry enterprises, which have an extensive structure throughout Turkey, gain an increasingly intensive structure in terms of contemporary development and specialization (Development Ministry, 2014). In particular, cattle and sheep farming enterprises, dairy farming enterprises and industry-type broiler (meat poultry) and egg poultry farms are required to have significant fixed and rotary capital due to their intensive nature.

2. LITERATURE REVIEW

2.1. AGENT BASED MODELLING

Computational modeling paradigm for nowadays, is the modeling of frameworks as dynamical systems of agents. Agent Based Modelling (ABM) is also can be expressed as individual-based modeling due to this definition. ABM however should not be thought as a method which is only applicable to large populations. ABM works better than the other techniques, in the problems of logistics, manufacturing, supply chains. This section presents an outline of research for the application of ABM in Livestock Supply Chain (LSC). Selected articles are published in the fields of agriculture, environmental science, computer science and operational research. The most based parts can be examined on the topic takes place in agriculture journals (e.g., Agricultural Economics, Agricultural Systems etc.). Although LSC is a significant and challenging application for ABS, the number of publications in the low number of Operations Research/Management Science (OR/MS) journals takes attention.

In this section, the key model design features are investigated. Agents in LSC include producers, distributers, retailers, consumers and others (e.g., Borodin et al., 2016 , Higgins et al., 2010; Pla et al., 2014). In analysis part the producer (i.e., farmer) is observed much more than the other elements in various ABS models, hence it is examined as the most significant element, especially in agriculture and environmental science journals.

2.2. DESIGN OF EXPERIMENT

Experiments are used by researchers to identify and understand a specific process or system. If we make a definition for design of experiment, "Examining the changes on product performance by systematically altering the value of controlled variables which affects characteristics of the product of interest.". In short it is the analysis and monitoring of outcomes by making changes in the process or the entiries in the system. The purpose of the statistical design of experiments is collecting maximum meaningful data at minimum time, resource and cost. If an experiment design properly data for the best results will be collected properly also. Therefore, while we are making design of experiment, the design must be made to answer the following questions: (Lazic, 2005).

- **Identification of the Problem**: The optimization of the system and levels
- **Determining the Aim**: Finding the most suitable techniques for distribution
- **Selecting the performance characteristics:** Investigating the general performance characteristics from the observations
- **The choice of factor levels:** The system have to be created due to two levels.
- **Selection of Experimental design:** The levels are generally seen in two level. Therefore, 2^n factorial design
- **Data collection:** From simulation results and data of general situation of country.
- **Analysis of Data:** ANOVA and significance tests

3. METHODOLOGY

From literature review, it is clearly seen that a generalization work of a supply chain of simulation whose experiment designed properly with statistical analysis, cannot be done clearly on livestock industry sector. The studies done in this topic generally have advanced implementation of supply chain and simulation. However, for design of experiment, it cannot be seen clearly. Moreover, the most significant part of this study is the net consideration of mass customization and mass production part. The simulation experiments are done with using design of experiments to avoid a lot of unnecessary ones. The simulation is tried to be done with all of the city of Turkey, therefore the results show the situation of Livestock Industry of Turkey and what have to be done to most optimized and effective ones. In *Figure 1*, a summarized figure has been shown.

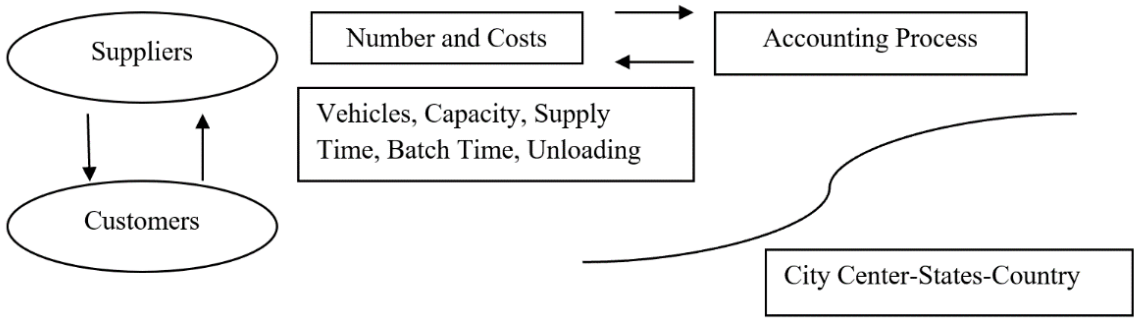


Figure 1. Livestock System Simulation (Summarized)

3.1. DISTRIBUTED MANUFACTURING FRAMEWORK & LIVESTOCK SUPPLY CHAIN MANAGEMENT

While determining the structures of environmental effects, the factors which have the same way effect for result of simulation, can be brought together using principal component analysis etc. and the significant tests can be made for do they really have an impact on the results. The decisions taken by agents can be classified as strategic, tactical and operational. Farmers or companies which have decision subsystems, planning and operation are going to determine their objectives, rules and conditions. Selecting field/herd is the second process and in here technical subsystems are put and acts on intrafield/herd with biophysical subsystems (Plant-Pests-Climate-Soil).

Stock levels and production levels are going to be created and taken from general data. Raw materials and resources are investigated, and the constraints will be determined. For available process Material Resources Planning (MRP) can be used at this part to determine the number of products in here. Reorder Points level is calculated and controlled for the situation available. The time for transportation of orders are determined. Total time for order can be accumulation of entering time (forecast), order planning time, order resources and monitoring time, transportation time.

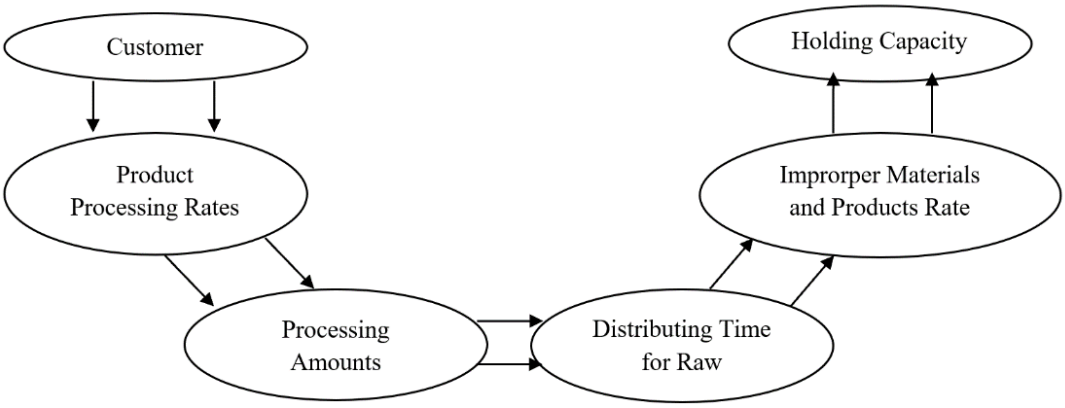


Figure 2. Data Extraction

The fact that livestock supply in the sector is inadequate, the fact that livestock enterprises are not scattered and optimal size, the differences in purchasing patterns and slaughtering standards according to the regions constitute important problems in supplying continuous inputs to the unfair

competition sector created by illegal and unregistered economies. The most important inputs in raw meat products are raw materials; packaging and packaging materials, auxiliary materials and additives.

The data structure can be extracted as shown *Figure 2* for structure. Moreover;

- Product Center Number => TSI
- 0,1 or More Distribution Leveled Company Number => TSI, Development Agency (DA)
- Customers => Forecasting Methods
- Raw Material and Stock Suppliers =>TSI, DA

3.2. SUPPLY CHAIN NETWORKS DETAIL

The chain can have maximum number of 6 echelon for the system. The levels can be extracted due to the livestock system of Turkey. For big meat company, they can be classified with 6 echelons. All of them have animal farms, slaughterhouses, processing plant, warehouses, wholesalers, retailers and customers. Small ones cannot have all the stages mentioned above. The general structure are shown in *Figure 3*. They can take animals from outside of the chain and do not have storage part like wholesalers, retailers. Municipality slaughterhouses and combines only make the slaughter part of this process.

Meat & Milk Institute (MMI) and the other public chains also have all the stages of livestock supply chain. Private sector slaughterhouses and combines also can make the slaughter part in here. They give the meat for private sector and MMI. In this part we are going to see the structure of just slaughterhouses part, farm part, processing part, transportation part.

Generally, all the meats are saved in one wholesaler; they cannot have a structure like retail or small warehouses. The combination of these parts is going to create the levels of the system.

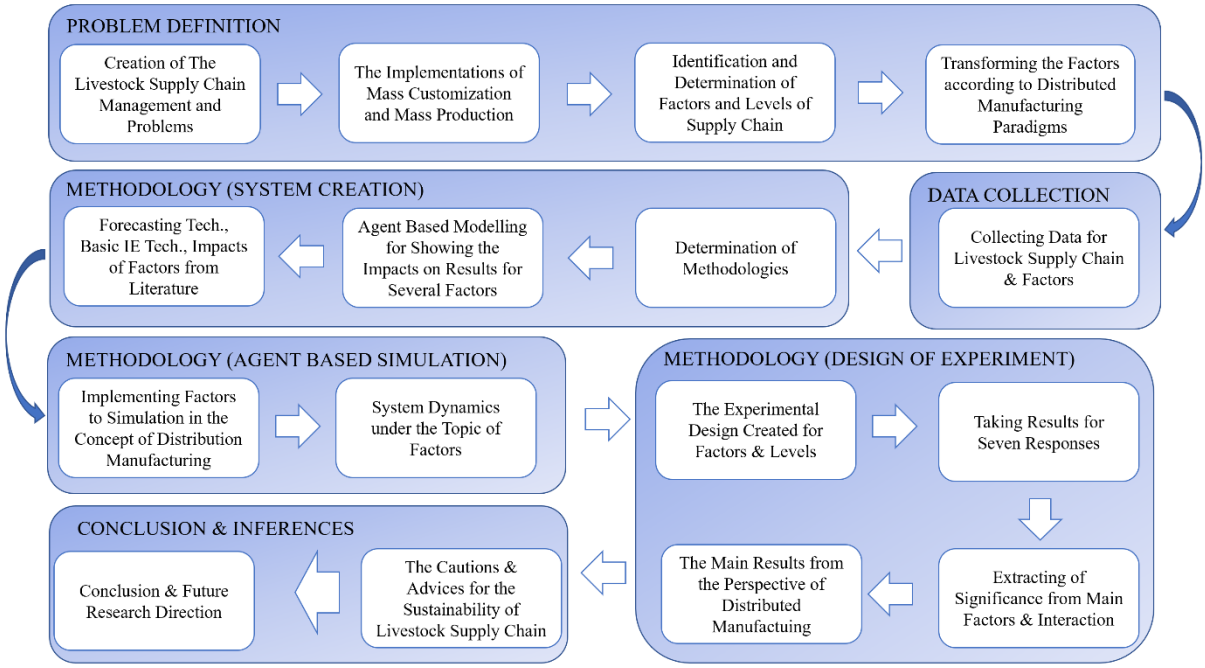


Figure 3. General Framework

In the consideration of the supply chain network flow, a basic modelling done. The objective function consists of minimizing total investment and operational costs. First type of constraint includes dependencies and restrictions. Second type of constraints enforces the flow conservation of products across each processing nodes. Third type of constraint requires that the total flow of products to customer nodes should exceed the demand at that node. Fourth type of constraint requires that the total flow of products from a supplier node, should be less than the supply at that node. Fifth type of constraint enforces capacity constraints of the processing nodes. The capacity constraint then requires that the total processing requirement of all products flowing into a processing node should be smaller than the capacity of facility if it is built. Finally, the last constraints enforce the nonnegativity of the flow variables corresponding to an arcs and products. The parameters and variables are shown in *Table 2.*

Table 2. Parameters and Variables of Livestock Supply Chain

Parameter	Variable
Location of Facilities	Number of animals
Number of Facility Operations	Workforce Status
Capabilities of Facility Operations	Meat Types
All private and municipal slaughterhouse numbers	Outsource Situation
Sum of industrial plants belonging to Private Sector	Carcass Meat Prices (Wholesale and Retail Prices)
Total number of industries related to processed meat products	Pasture and Place of Pastures
Network Structure	Number of pastures and pastures
Stage Number of Layers	Capacity Utilization Rates (to be used as a result)
Number of Exports and Imports of Meat Products	Total Number of Meat Produced
Miscellaneous Costs	Stock Level
Cattle Sheep Slaughter Rates and Average Carcass Weights	
Per Capita Productivity (Comparison with Europe)	

4. RESULTS AND DISCUSSIONS

4.1. THE LEVELS & FEATURES OF THE SYSTEM

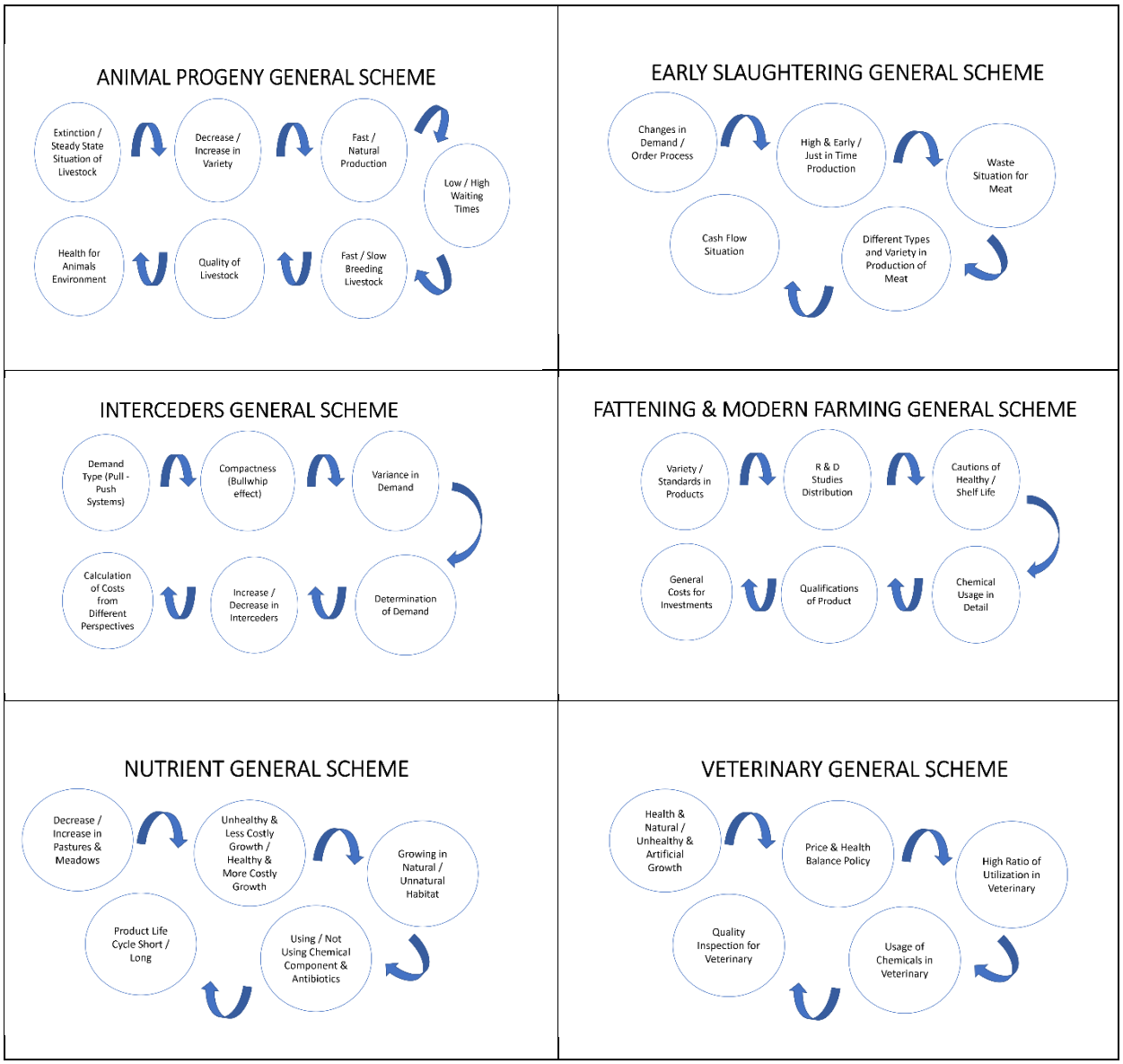
The design of simulation will be made due to these factors. All factors going to be evaluated with similar levels, however all levels cannot be seen under other factors. This levels can be determined clearly after the data process and simulation framework. These levels are going to be used for design of experiment 2-level factors. Agents are going to be shown as Production Unit, Distribution Unit and etc. They have a general mission and make their progress via this goal.

The summarize of the factors are shown at *Figure 4-5.* They can represent as food factory or grower, designing logistic network, decreasing fresh product waste, analyzing quality control logistic. They are going to have same kind of attributes and these attributes in general can be expressed via simulation part. System dynamic will be used to show the progress of process while production is happening.

Multiagent simulation will be the answer to understand the relationship and interaction between these agents. Impact of natural environment and capturing agent decision and plan process constitutes the flowchart and state charts in simulation.

In the process firstly, the general process of supply chain will be investigated. Secondly, the companies in Turkey are all considered to make a generalization in simulation. The number of companies in states are examined and the number and cost of production will be considered.

The size of company are going to be examined and the supply chain is decided due to these concerns. The available and the next situations will be seen and what kind of arrangements can be made, the questions are trying to be solved. The cost part can be extracted from Public Disclosure Platform (PDP).



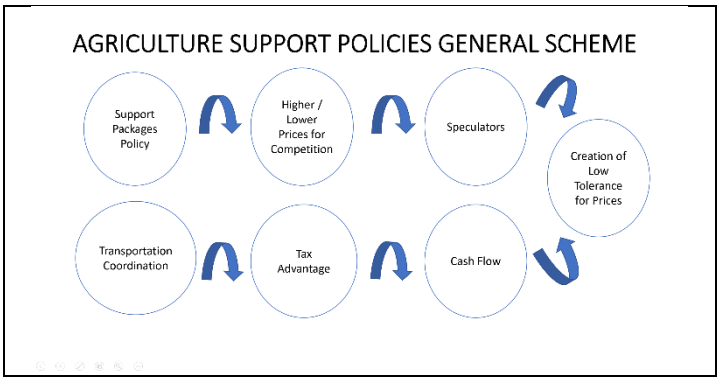


Figure 4. Summarize of Factors for Livestock Supply Chain Problems

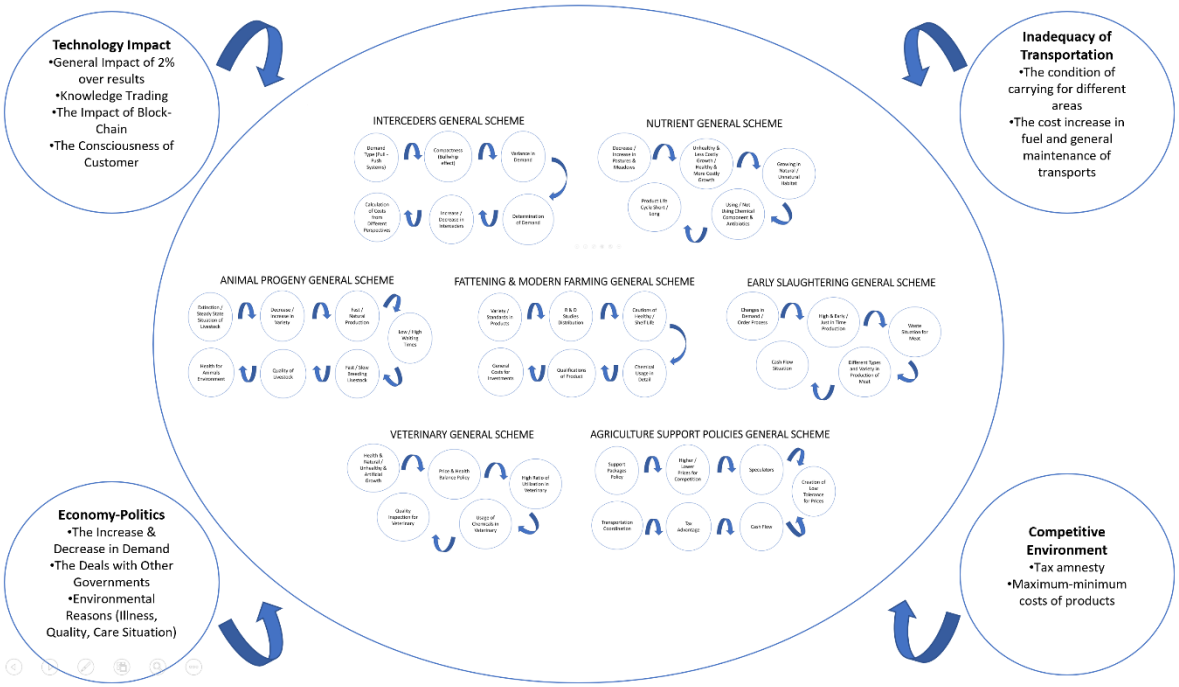


Figure 5. Summarize of Factors for Livestock Supply Chain Problems

5. CONCLUSION

5.1. SUSTAINABILITY

The presence of large firms in the current system leads to the inability of the small firms to survive. Solution experts and farmers voiced bar for years: "Turkey does not have a problem with the meat but weed problem." When we take care of our rangeland forage clear that we confer again by livestock breeding; raising racial cattle breeds and hybrids, and if we do not lose the born calves, then we become a country that produces red meat without needing anyone.

The countries we import have three basic characteristics. First, they must have races and crossbreeds, secondly, they must use their property. Many factors related to this situation can be listed in the sub-line. The climate condition of those countries is not the same as our country. The

amount of rainfall is not the same. But there is a truth. Watch on Turkey itself, even with a potential to feed the region. But it cannot be put into action with some potential. The distress generally originates from the fact that the system of work is not constructed in some way. A sustainable and long-term animal husbandry policy cannot be established. Unlike large economies, this situation is not seen as a state policy in Turkey.

5.2. THE FRAMEWORK OF THE SYSTEM & BASIC PRINCIPLES

The place in the meat supply chain where all available meat is available will be examined at various stages of the supply chain. How much share do they get in big production? Are they involved in marketing the products of big companies? A separate experimental design situation can be used in external factors. The factors that will act in a common direction can be shown together using principal component analysis of external factors. A test of significance can be made as to whether an external agent is an effect. First, you can look at the structure of a company's supply chain. Then it starts to withdraw towards the country base.

On the provincial basis, it is checked how many of the enterprises are large and medium-sized enterprises. For each company, the strategies are considered to be medium to small. The current situation is analyzed in the next situation. How policies should be regulated is examined. Controls and interventions in the supply chain have been specified earlier. Randomly distributed requests will be identified, and a welcome will be made accordingly. There may be problems in production. Problems will become more pronounced when demand and production increase. The whip effect can show itself here. Performance criteria need to be determined. Performance measures for evaluating the supply chain need to be assessed. The criterion selection differs according to the purpose of the organization. The general scheme for the simulation for LSC and implementation of the structure have been shown in *Table 3-4-5 and Figure 6*.

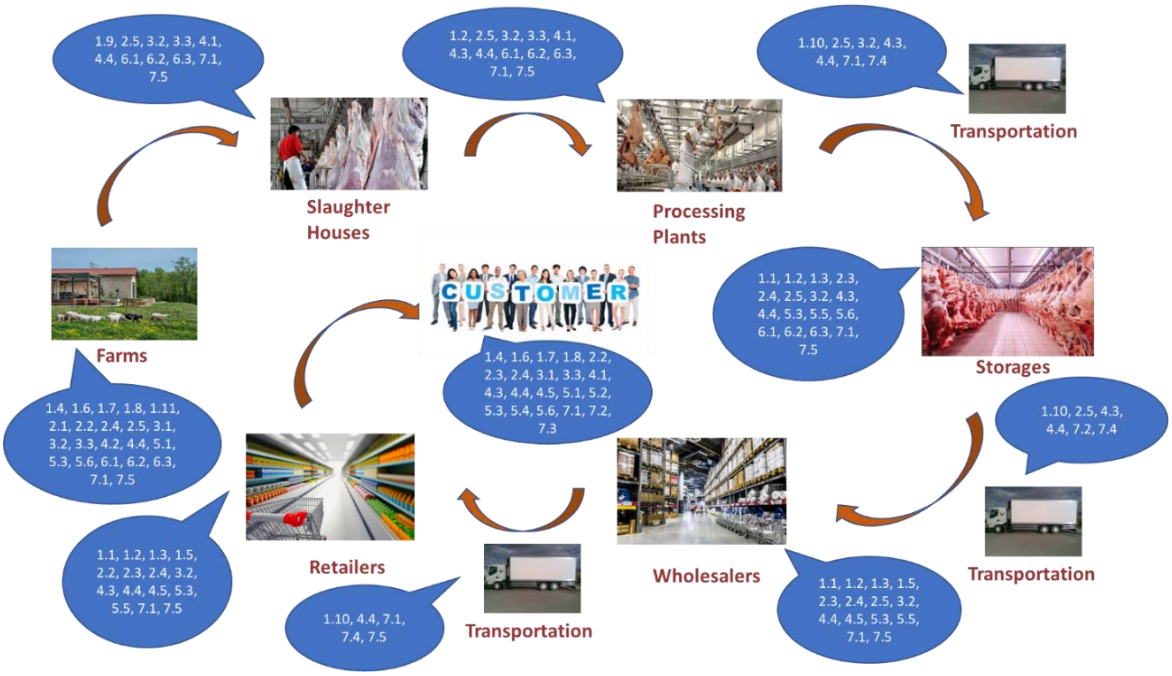


Figure 6. Livestock Supply Chain with significant factors and subfactors

Other Details of System;

- Schematic will be detailed in accordance with the status tables. The system should be constructed based on the factors that must be found before it, and the details after that will be looked at.
- The relevant parts of the factors will be included in the system together with external factors and flow diagrams. The definitions around the 7 basic factors will be used to create the rules on state charts.
- Distribution technology and information systems; Determination of global consumer behavior in terms of meat consumption in Turkey in terms of regional or provincial related to the shift towards a consumption graph where in recent years and after that will be used to determine how the consumer demand will be shaped accordingly. Increase in yield, water and energy consumption will become more important.

Table 3. General Structure & Application of Simulation Study-1

Factors	Sub-Factors	Mass Customization Level	Mass Production Level	Showing in Simulation / Real Life
1.Amount of Interceders	1.1. Process Goal	Variety and process cycles	Efficient structure	The result of producing high level or low level of inventory.
	1.2. Process Criteria	Flexible process	Inelastic process	The status of how the process can be convertible for different product.
	1.3. Market	Qualified service & detailed investigation	Continuous chain between sellers	Survey can be made to understand the relationship between the factors chosen here. How does the service happen in the situation of different levels?
	1.4. Transporation-1	Satisfaction and variety with order-based	Easy acquisition	The acquisition is much easy in mass production for short term. When the long term is investigated the status will be looked.
	1.5. Transporation-2	Decentralization	Centralization	Putting all the interceders (warehouse, retailer etc.) near or far places
	1.6. Decision Maker	Decision taken with intermediate process and customers	Direct decision for supply process	Taken decisions in various steps of supply chain are determined due to the distribution of warehouses, retailers, wholesalers and etc. The amount or price of the meat are investigated in the beginning or in the intermediate part or customers.
	1.7. Production Demand	Order Based Forecast	Demand Forecast	Pull-Push System are going to be investigated in here.
	1.8. Demand	Constant Demand	Fluctuating Demand	Bullwhip Effect is going to be investigate. The significance of communication between supply chain levels are the main topic. How does the trend go due to the random and determined numbers of demand is the question which is waited to be answer?
	1.9. Agility	Fluctuating movement for production process	More interceders with lower answer.	The relationship between the sellers are not compact and not have the same flow
2.Nutrient Problem	2.1. Process Goal	Decrease of pastures and merals	Unnatural nutrient, utilization of hormones and antibiotic.	This part is going to be put in how many animals can be benefited from the pastures and merals. Use of these areas and the enough amount is going to be calculated.
	2.2. Process Aim	Healthy but costly growth	Fast and unhealthy growth	The situation that livestocks growing and living in farm and modern industrials plants can make a lot of differences among themselves.
	2.3. Product-Life Cycle	Long	Short	It can vary due to nutrient which have a lot of chemical component. The natural nutrient can affect the life cycle in here.

	2.4. Pricing	Cost of growing natural environment	Cost of growing unnatural environment	When the total costs are calculated, the location of meadow and pastures, the price of feeds, the holding, ordering cost must be taken into consideration. Actually, if it is prepared in a right and integrated way. The costs can be lowered due to raising in natural environment.
	2.5. Market	Growing animals in the places where they can relax and efficient.	Growing animals in the places near centrals of cities and countries	The closeness of market can lower transportation costs, but on the other hand centralized approach is going to have a negative impact.

Table 4. General Structure & Application of Simulation Study-2

Factors	Sub-Factors	Mass Customization Level	Mass Production Level	Showing in Simulation / Real Life
3.Animal Progeny	3.1. Process Goal	Various kinds of livestock with various kinds of efficient products	Standard kinds of livestocks with given efficient products.	This process can cause extinction of rare kinds of livestocks and disturbs ecological balance (GDO).
	3.2. Response	Natural production with high waiting times.	Fast production and incubation period with stimulants and hormones	The quality is the main answer in here. Mass customized product will have a high quality with lower amount of mass production product.
	3.3. Product Type	Slow breeding livestocks become more preferable	Fast breeding livestocks become more preferable	In here, the kind of animal is playing a high effect. Pork ang pig is an alternative livestock product and people can eat. On the other hand, the religion effect must be considered.
4.Fattening-Modern Farming	4.1. Process Goal	Variety and Customer Demanded Products	Standardized Products	Which area they are going to be used and classification
	4.2. Criteria	Qualified and Special Product	Rapid and Standardized Product	Fats also related to meat production. The same structure is seen again in here.
	4.3. Product Growth Line	Taken precautions which helps fattening for livestocks in health way	Taken precautions which helps fattening for livestocks in much faster	The formation of process and its length.
	4.4. Product Life Cycle	An extra caution cannot be taken for shelf life.	The cautions which is taken for shelf life	Fats also related to meat production. The same structure is seen again in here.
	4.5. Stock Management	Impact of decreasing of holding and ordering cost	Impact of increasing holding and ordering cost	What is the time for fattening with two distributed manufacturing techniques?
	4.6. Pricing	High	Low	Prices of natural products will be higher than standardized product.
5.Early Slaughtering	5.1. Process Goal	To manage the numbers determined from the customer orders for production	To manage the numbers determined from the companies for production	The demand will be calculated due to the forecasting and real-time.
	5.2. Process Aim	Different products for market share	The aim for competition	Customer demand can vary and also, they want it fastly. The question is what they really want.
	5.3. Production Base	Efficient use of meat	Meat waste	
	5.4. Choice	Kinds of different products	The presentations of determined products and not varied ones	Customer demand can vary and also, they want it fastly. The question is what they really want.
	5.5. Stock Management	Known numbers of products	The increase of products for mass production-based system.	Stock management is in a higher level at this point for mass production systems. The increase and decreases can have lower effect for the policy.
	5.6. Logistic – Cash Flow	Stabilized numbers of stock level and transportation costs	The increase due to high stock level and transportation costs.	Cash flow is a significant issue for the companies. They can handle it only with obtaining meat with early slaughtering.

Table 5. General Structure & Application of Simulation Study-3

Factors	Sub-Factors	Mass Customization Level	Mass Production Level	Showing in Simulation / Real Life
6.Veterinary	6.1. Decision Maker	The interventions for healthy and natural growth livestocks	Trying to keep healthy and natural growth within a lot of condition	The health of livestocks can be much better in mass customized environment.
	6.2. Market Share	The high ratio of utilization of veterinary	The low ratio of utilization of veterinary	Because of dealing with higher amounts, the veteran can give much their energy and knowledge in mass customized products.
	6.3. Quality	High Quality Control	Stabilized Quality Control	The health of livestocks can be much better in mass

		Standards	Standards	customized environment.
	7.1. Focus	View of government (Support packages with socialist politics)	View of government (Support packages with liberalized politics)	Socialist politics try to improve the country with the power of state, but liberalistic politics do the same job with the power of private entrepreneurships.
	7.2. Process Goals	Much higher price than other techniques	Creating a level for everyone can buy the meat.	The support can be given from the perspective of new technology.
7.Agricultural Support Policy	7.3. Demand	Much more stabilized price	Much more speculative price	Dealing with the way the precautions to prevent speculators increasing the price.
	7.4. Flexibility	Government can give support for transportation	A big company can lower the price dealing with only just transportation	The cost of transportation may be decreased with lowering the taxes for general or private companies.
	7.5. Cash Flow-Logistic	The supports for public company to maintain the cash f.	The supports for big company to maintain the cash flow	The supports are given due to the production systems. In the simulation, the policy will be determined due to the difference of two paradigm.

- Political and international relations; Exports have deteriorated in relation to export charts, relations have deteriorated in years. 2009,2016,2014,2015,2013 (Turkey's export graphics in this time) can be viewed on the import situation in recent years.
- A kind of illnesses coming from abroad will be taken into the business to see what kind of contribution it will make in terms of export and import.
- What will be the impact of traditional food rituals on meat consumption? How they are affected by meat consumption in the absence of these.
- It is stated what kind of meat products will be given to the customer when they receive the request. Depending on the situation, from where to how much production can be done if enough products can be found for the processed products. According to the customer request different requests will be produced in the program. Over the years, it has affected the development of technology and the status of various products.

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