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The works can be presented as:

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## FACILITY LAYOUT IMPROVEMENT FOR ENHANCING PRODUCTIVITY: AN APPLICATION OF SYSTEMATIC PLANT LAYOUT

### Abstract:

One of the major prerequisites for effective operations of a manufacturing plant depends on the sufficiency of a good facility layout. A well-planned facility layout enables better utilization of resources and thereby better production control. The purpose of this research was to analyse the effectiveness of the layout improvement through systematic plant layout planning (SLP) method. Factors like relationship diagram/affinity chart, material flow, space requirements etc. were studied to propose a modified layout according to the SLP method.

The study found that the improved plant layout not only optimised the material flow and space requirements but in addition it enormously reduced the material handling cost of the plant thereby bringing better operational efficiency.

### Keywords:

systematic layout planning; relationship diagram; affinity diagram; enhanced productivity; material handling cost

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## Introduction

With increased competition and demand, companies need to raise their efficiency in production in order to keep up with the competition and eventually sustain in the market. At the same time, being competitive requires the production process to be capable of manufacturing more of the products but at a lower cost thereby increasing the efficiency. There are many ways to unravel the problems concerning productivity, for example through quality control (QC), implementation of total quality management (TQM), time standardization, appropriate plant layout etc. productivity could be enhanced.

Plant layout perfection is considered as one of the fine tools to attain high levels of efficiency. Plant layout design has become a fundamental factor of today's industrial plants which can influence parts of work efficiency. It helps in suitably planning and allocating resources like employees, supplies, machines, and other engineering supports and amenities to develop the most effective plant layout.

Plant layout refers to the arrangement of physical facilities such as machinery, equipment, furniture etc. within the factory building. An efficient layout will allow the quickest flow of material at the lowest cost and with the least amount of handling in processing the product from the receipt of material to the shipment of the finished product. Plant layout supremely involves the distribution of space and arrangement of equipment in such a manner that overall operating costs are minimized.

Effective facility planning can reduce significantly the operational costs of a company. Proper analysis of facility layout design could result in the

improvement of the performance of the production line. This can be realized by minimizing material handling costs; reducing idle time; maximizing the utilization of labour, equipment and space.

A good placement of facilities contributes to the overall efficiency of operations and can reduce until 50% of the total operating expenses [1].

Another study found that working with no standard time nor facilitating tool will result in confusion among the staff and they end up spending too much time on work [14]. The way to solve these problems was to improve the steps in working and the area where they worked through observation and fieldwork as well as proposing tools to facilitate the work to set balance and find the standardized time.

Continuous assessment of product demand, flow between departments, and evaluation of the layout to determine the time at which a redesign should be performed is necessary for maintaining a good facility layout for multiple periods [4]. The redesign of an existing layout is expensive but can be justified when there is a sufficient reduction in material handling cost.

The purpose of this paper was to find out an improved layout design using a systematic layout planning method so as to improve productivity but at a reduced investment. This case study was conducted in a frozen meat factory located in Ernakulam in Kerala; and the original layout of the plant, material flow, placement of the different units, distances between the units were all studied. The efficacy of the new proposed layout was also decided by computing the material handling cost.

## Review of Literature

There has been quite a number of research done on facility layout and its advantages. However, there are only a few literatures available on facility layout using systematic layout planning method. In this session, pertinent pieces of literature are presented.

The design of a facility is a strategic issue that is having a significant impact on the manufacturing units[6]. It is essential to reallocate the plants' equipment in a way that they do not alter the manufacturing process but reduces the distance between different workstations which in turn reduces the material handling cost.

A study on the production process for a cable box to form metal found that improper plant layout has a serious implication on the duration of the production process[19]. The researcher found that the job cannot be completed within the standard time.

Vollmann suggested guidelines to assist in the analysis of the layout problem [16]; however, each layout problem has its own characteristics. The optimal design of the physical layout problem should be solved in the early stages of the system design[8]. Modern factories should have this planning requirement catered for in their physical design.

Muther suggested systematic layout planning (SLP) as an improvement method. In this method, a proximity matrix which signifies nearness of each facility is graphically represented. Flowcharts can also be developed showing quantitative relationships[10].

Though systematic layout planning (SLP) is widely used in the manufacturing industry for facility

layout planning, there are instances where it has been used in retail stores [5] and the design of fabrication units [18]. It was found that by using analytical tools, SLP can be stretched to include store layout planning [5].

Layout generation and evaluation are often challenging and time-consuming due to its inherent multiple objective natures and its data collection process [2]. Past and emerging research has been aimed at developing a solution methodology to meet these needs [20]. However, algorithmic approaches have focused mainly on minimizing flow distance in order to minimize material handling costs. On the other hand, procedural approaches have relied heavily on experts' experience. Ongoing engine reconditioning process layout of the automobile industry are studied and a new layout is developed based on the systematic layout planning pattern theory to reduce engine reconditioning cost and increase productivity. The number of equipment and travelling area of material in engine reconditioning have been analysed. The detailed study of the plant layout such as operation process chart, activity relationship chart and the relationship between equipment and area has been investigated. The new plant layout has been designed and compared with existing plant layout. The new plant layout shows that the distance and overall cost of material flow from stores to dispatch area are significantly decreased. The implementation of the proposed model will help in the overall improvement of the production performance of the engine reconditioning unit of the corporation [3].

At this point, it will be relevant to indicate that in the mid- 1970s a discussion was raised in the



literature concerning the facility layout problem [13]. In this paper, the researcher discussed the comparison between layout solutions generated by computer algorithms and ones based on human visual methods. The results of the research showed that visual methods gave a better performance than the computer software available at that time. Kajondecha in his research aims to improve the plant layout of pulley's factory to eliminate obstructions in material flow and thus obtain maximum productivity [7]. The present plant layout and the operation process of each section (i.e. sand mould, core warehouse, core making, disassembly surface finishing, furnace, and inspection sections) have been investigated. The problem in term of the material flow of each operation section was identified. The result showed that disassembly surface finishing and inspection sections should be allocated to make good material flow. The suitable of new plant layout can decrease the distance of material flow, which raises production.

Another study the plant layout of manufacturing industry was studied to make optimum space utilization, eliminate obstructions in material flow and thus obtain maximum productivity[15]. The result showed that raw material section, cutting section and fabrication shops should be allocated to make the good material flow. The suitable of new plant layout can decrease the distance of material flow and transportation cost which raises production cost [17].

## Methodology

This paper used systematic layout planning (SLP) [10] as the tool to solve a layout design problem in

the frozen meat factory. The work focuses on improving the facility design of the production floor. Though the meat processing firm follows a process layout, it has been following the old layout for years which has resulted in high material handling effort and increased material handling cost. The problems were studied and systematic layout planning was proposed to modify the plant layout. Descriptive research was used for the study. The study included 17 departments of the company including the supervisor room. The process involved in performing systematic layout planning is relatively uncomplicated and it is a proven tool in providing layout design guidelines in practice[11], [9]. The systematic layout planning method is a step-by-step procedure of plant design from input data and activities to an evaluation of plant layout. Its major advantage is that it clearly documents the logic of the layout and easily allows input from all levels of staff [4].

The SLP has 3 main stages comprising 8 steps in total.

Stage1 is the input data collection.

- Step 1: Collection of data on P (product) and Q (quantity).
- Step 2: Finding out the space requirements.
- Step 3: Preparing the from- to - chart
- Step 4: Process sequence
- Step 5: Analysing flows of material
- Stage2 is the procedure process, which is represented by:
  - Step 6: Relationship diagram with closeness rating.
- Stage3 is output stage which includes:
  - Step 7: Developing layout.
  - Step 8: Evaluation of the proposed layout.

## Data Source

The data needed for the study were collected from the workers and supervisors of the production department. The entire blocks in production floor were analysed and the process sequences for three products namely, sausage, cutlet and canned products were considered for research.

The data necessary for the study:

- Product variety (P): This element is the key factor which affects the composition and relationship of all the facilities, equipment categories and material handling way.
- Quantity (Q): This element affects the layout scale, equipment amount, handling workload and construction area.
- The existing plant layout.
- The distance between various blocks in the present layout.

## Tools Used for Analysis

Two main tools were used for the analysis of plant layout under systematic layout planning. Each tool tries to find out the intensity of the relationship between various blocks in terms of quantity of flow and the closeness required.

- From - to - chart: The 'from to chart' is a routing planning chart, it consists of a matrix. The blocks in the production floor are written down the left-hand side of the form and across the top. The quantity of flow between various blocks is written down.
- Relationship graph: The activity relationship diagram is also called the affinity analysis diagram and it shows the relationship of every department, office, or service area with every other department and area.

## Case Study

### Procedure for Analysing Plant Layout

In this particular study done in a meat processing unit, 17 blocks including the supervisor's room and office were considered. The plant layout is designed taking into consideration the process sequence of the products like sausage, cutlet and canned products.

The detailed step by step process of data collection is given below

Stage 1: Before revamping the layout using SLP model, it's necessary to study the existing plant layout and its drawbacks. Stage one of systematic layout planning consists of five steps wherein all the input data regarding the products under study like the quantity, material flow, intensity of flow etc. were examined. This process will enable the researcher to pinpoint on the shortcomings of the layout and come up with details that have to be corrected. The process followed in collecting the data is given in sequence.

Step 1: The first step was to identify the products in production. For the purpose of research, the products considered were sausage, cutlet and canned products in beef, chicken and pork meat varieties. The quantity of material flow was ascertained to be 20,000 Kg.

Step 2: The space requirements for all the 17 blocks including the office and supervisor's room were assessed and the space requirements are given below.

No	Blocks	Area(l*b)	Area(m <sup>2</sup> )
1	Slaughter hall	4.55*11.45	52.0975
2	Chilling1	2.8*1.2	3.36
3	Chilling2	7.55*1.2	9.06
4	Process hall	4.1*6.125	25.1125
5	Cutting area	7.55*12.25	92.4875
6	Curing	4.1*6.125	25.1125
7	Cold storage 1	2.8*5.53	15.484
8	Cold storage 2	8.01*5.53	44.2953
9	Canning	6.5*7.6	49.4
10	Cooking room	10.2*3.9	39.78
11	Chicken slaughtering	6.5*11.17	72.605
12	Chicken cutting	6.5*7.6	49.4
13	Processing area	6.5*7.6	49.4
14	Cold storage 3	6.5*7.6	49.4
15	Cold storage 4	6.24*6.26	39.0624
16	Supervisor room	5.4*3.3	17.82
17	Office	3.3*3.3	10.89
		Total Area	644.7667 m <sup>2</sup>

*Table 1. Space Requirements of Various Blocks, Source: Data Analysis*

Step 3: In this step, the quantity of flow between the 15 production blocks was assessed and the data was depicted below using from- to chart. The chart aids to find out the intensity of material flow between the production blocks.

	1	2	3	4	5	6	7	8	9	10	12	13	14	15	Total
1	4500	4500													9000
2				1200											1200
3				1200											1200
4					2400										2400
5						300	2200	400		300					3200
6									200						200
7					400										400
8															
9														200	200
10					200										200
11											600				600
12												600			600
13													600		600
14					200										200
15															
Total		4500	4500	2400	3200	300	2200	400	200	300	600	600	600	200	20000

*\*(Refer Table 1 to know the name of the blocks corresponding to the number. For example number 1 corresponds to slaughter hall)*

*Table 2. From-to-Chart (all in kg), Source: Data Analysis*

It can be seen that a total of 20,000 Kg of material is flowing in this plant. The total flow is given at the bottommost and rightmost cells in the chart which helps in finding out the blocks with large material flow. The blocks 16 and 17 which is the supervisor's room and office room respectively is not shown in the chart since no material flow is happening in these blocks. The chart reveals that the block five (cutting area) has got the highest intensity of material flow hence block five is given top priority since it handles a large quantity of material flow. The second largest flow happens from block 7 (cold storage 1) to the cutting area, therefore, it may be economical to place these two blocks (5 and 7) together.

This chart also helps in finding out the material handling effort in the plant by analysing the quantity of flow. The number of moves can be calculated from the chart which acts as the basis of comparison.

Step 4: The next step is to ascertain the process sequence of the products under study namely sausage, cutlet and canned products in the three meat varieties.

Sausage:

Pork 1-2-4-5-7-5-8

Beef 1-3-4-5-7-5-8

Chicken 11-12-13-14-5-7-5-8

The last four blocks of the sausage making are the same irrespective of the meat variety. Block 8 (cold

storage 2) is the area where final sausage packets are stored.

Cutlet:

Pork 1-2-4-5-10-5

Beef 1-3-4-5-10-5

Chicken 11-12-13-14-5-10-5

In cutlet too the last three blocks of the cutlet making are the same irrespective of the meat variety. From the cutting area, cutlet packets are taken to the outlets for sale.

Canned products:

Pork 1-2-4-5-6-9-15

Beef 1-3-4-5-6-9-15

Chicken 11-12-13-14-5-6-9-15

In the case of canned products, the last four sequences are the same for all three variants. The block 15 (cold storage 4) is the area where final canned product packets are stored.

Step 5: In this step, the distance between the blocks and the number of movements between the blocks were analysed from the from-to-chart. The total distance of the product is the real distance between the blocks and the number of movements. From the table below it could be seen that the total distance between the blocks were 6002.55 metres.

Process	Distance(m)	No of moves	Total Distance(m)
1-2	14.9	30	447
1-3	12.1	30	363
2-4	4.1	30	123
3-4	2	30	60

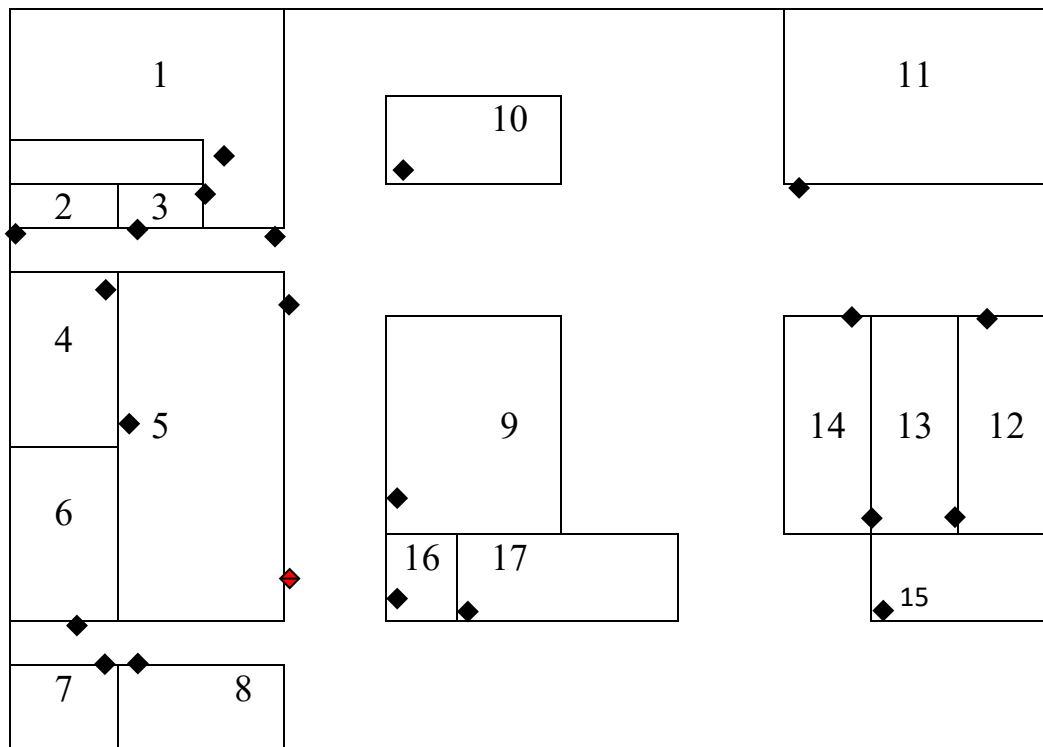
Process	Distance(m)	No of moves	Total Distance(m)
4-5	1	120	120
5-6	19.8	15	297
5-7	23.34	110	2567.4
5-8	22.4	20	446.8
5-10	3.6	15	54
6-9	14.625	10	146.25
7-5	11.09	20	221.8
9-15	45.76	10	457.6
10-5	11.67	10	116.7
11-12	2.35	30	70.5
12-13	2	30	60
13-14	2	30	60
14-5	39.15	10	391.5
		Total	6002.55 m

Table 3. Distances and Number of Movements, Source: Data Analysis

With the completion of the five steps, all the necessary information for performing SLP was obtained. The next stage is to ascertain the relationship or the closeness between the 17 units. However, before performing this exercise, it is essential to study the existing layout and its shortcomings.

## Present Plant Layout

The layout below depicts the present layout of the meat processing unit which is under study.



*Figure 1. Present Plant Layout*

- |                   |                         |
|-------------------|-------------------------|
| 1 Slaughter hall  | 11 Chicken slaughtering |
| 2 Chilling Unit 1 | 12 Chicken cutting      |
| 3 Chilling Unit 2 | 13 Processing area      |
| 4 Process hall    | 14 Cold storage 3       |
| 5 Cutting area    | 15 Cold storage 4       |
| 6 Curing          | 16 Supervisor room      |
| 7 Cold storage 1  | 17 Office               |
| 8 Cold storage 2  | ◆ Exit point            |
| 9 Canning         | ◆ Entry point           |
| 10 Cooking room   |                         |

### Analysis of Material Handling Effort of the Existing Plant Layout

Very manufacturing firm will have material transportation. Material handling cost account for 10 to 30 % of the total operational cost, depending on the layout design and the material being transported (IISE). Material handling efforts could be reduced by systematic layout planning [12].

- The distance travelled by trolley in one day = 6002.55m
- There are 2 shifts per day
  - The distance travelled per shift =  $6002.55/2 = 3001.275\text{m}$
  - Wages of workers = Indian Rupee 1200 i.e. \$ 17. 10
  - No of workers = 25
  - Average material handling cost/meter = (number of worker\*salary of one worker per day)/average distance travel per day =  $(25* 17.10/30)/3001.275=\$ 0.004747$
  - Total material handling cost/day =  $0.004747 *6002.55 = \$28.5$

### Designing the improved plant layout

Before designing the improved plant layout, the limitations of the current plant layout from the above analysis are stated below.

- High material handling the cost
- Improper design of the entry and exit points
- Increased material handling effort
- Wastage of time

In order to improve the plant efficiency, material handling effort has to be reduced. The distance table and the from-to-chart helps to formulate a relationship diagram in which the importance of affinity of various blocks is shown. The affinity rates are given by:

- A - direct flow/greater quantity
- E - depending upon the previous activity
- I - equal/same facilities requirement
- O - convenience
- U - no significance

### Stage 2: Procedure process

Step 6: Relationship diagram with closeness rating: The intensity of the relationship between the blocks is represented in this diagram. The from-to-chart results are taken into account for constructing a relationship chart.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Score
1		A	A	E	U	U	U	U	U	U	U	U	U	U	U	O	U	28
2			I	A	E	U	U	U	U	U	U	U	U	U	U	U	U	24
3				A	E	U	U	U	U	U	U	U	U	U	U	U	U	21
4					A	E	E	U	U	U	U	U	U	U	U	U	U	23
5						A	A	A	E	A	U	U	U	A	U	O	U	36
6							U	U	A	U	U	U	U	U	E	U	U	19
7								I	U	U	U	U	U	U	U	U	U	12
8									U	U	U	U	U	U	U	U	O	10
9										U	U	U	U	U	A	U	U	12
10											U	U	U	E	U	U	U	10
11												A	E	U	U	O	U	14
12													A	E	U	U	U	12
13														A	U	U	U	8
14															U	U	U	3
15																U	O	3
16																	O	2
17																		

Figure 2. Relationship chart with closeness rating

**Grade**

**Score**

- A - Absolute necessary
- E -Essential
- I -Important
- O -Ordinary closeness
- U -Unimportant
- A - 5
- E - 4
- I - 3
- O - 2
- U -1

For example: Consider block 1 and 2. They must be placed adjacent to one another so it is given the grade A and score 5. The total score for block 1 will be 28 after evaluating its relation with all the other blocks and the score for block 2 is 24.

**Findings**

The main areas of concern based on the relationship graph and from-to-chart are a long distance from cold storage to the cutting area, the long distance between curing and canning and the unscientific design for entry and exit points. The improved plant layout is given below.



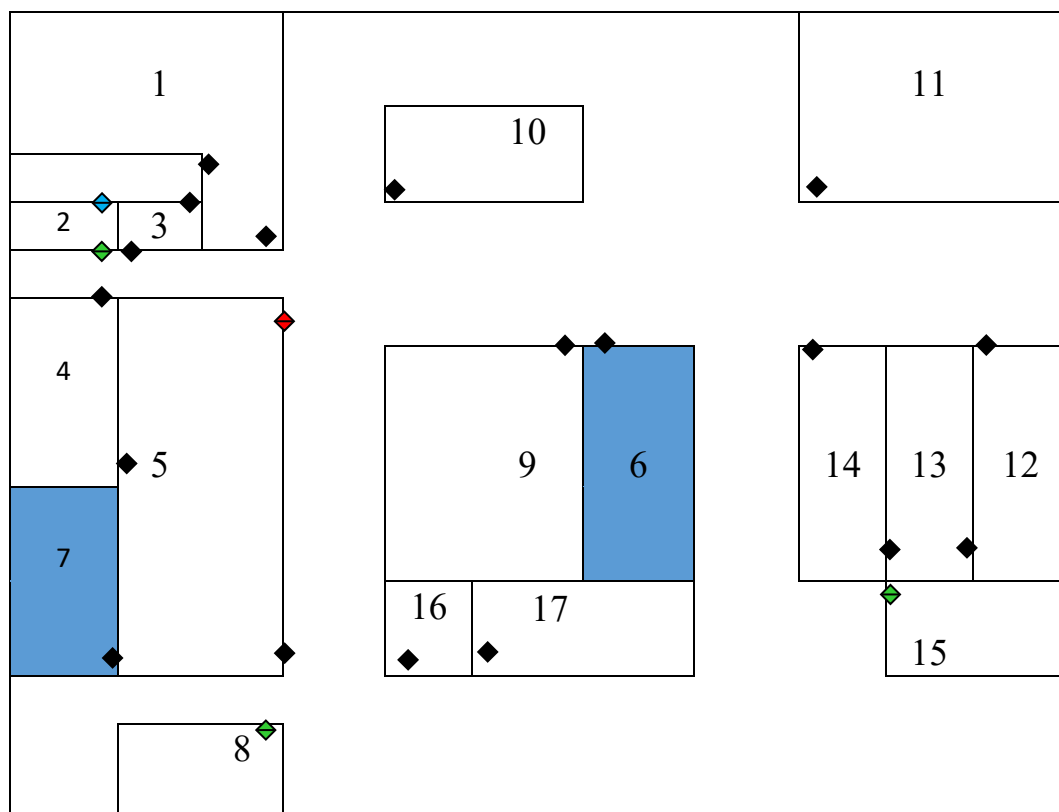


Figure 3. Improved plant layout



#### Modifications:

- The position of cold storage 1 is moved adjacent to the cutting area. The curing block is moved near to the canning.
- The entry point of chilling 1 is shifted towards the right and is given a new entry point for the flow from slaughtering hall.
- The entry point of cold storage 2, cold storage 4 is shifted and entry and exit points of cutting area are interchanged.

#### New distance between blocks

Process	Distance(m)	No of moves	Total Distance(m)
1-2	8.55	30	256.5
1-3	8	30	240
2-4	3.75	30	112.5
3-4	2	30	60

4-5	1	120	120
5-6	19.75	15	296.25
5-7	1	110	110
5-8	3	20	60
5-10	16.85	15	252.75
6-9	1	10	10
7-5	1	20	20
9-15	26.6	10	266
10-5	4.6	10	46
11-12	2.35	30	70.5
12-13	2	30	60
13-14	2	30	60
14-5	28.9	10	289
		<b>Total</b>	<b>2329.5</b>

Table 4. New analysis of material flow, Source: Data Analysis

#### Analysis of material handling effort of the improved plant layout

- Total material handling cost/day
- = (Average material handling cost/meter) \* total distance
- = \$ 0.004747\*2329.5 = \$11.058

#### Effectiveness of SLP

The effectiveness of Systematic layout planning can be understood by comparing the material handling effort and cost of the present plant layout and proposed plant layout. The plant layout using SLP reduced the distance between the blocks which are shown in the table. The total distance for the process sequence with respect to the present and proposed plant layout is represented as TD1 and TD2 respectively.

Process sequence	TD1(m)	TD2(m)
1-2	447	256.5
1-3	363	240
2-4	123	112.5
3-4	60	60
4-5	120	120
5-6	297	296.25
5-7	2567.4	110
5-8	446.8	60
5-10	54	252.75
6-9	146.25	10
7-5	221.8	20
9-15	457.6	266
10-5	116.7	46
11-12	70.5	70.5
12-13	60	60
13-14	60	60
14-5	391.5	289
<b>Total</b>	<b>6002.55 m</b>	<b>2329.5 m</b>

Table 5. Comparison of distance, Source: Data Analysis

The distance has been reduced from 6002.55 m to 2329.5 m by the improved plant layout designed using systematic layout planning. The material handling cost comparison is given in the table below.

	Present plant layout	Proposed plant layout
Total distance	6002.55 m	2329.5 m
Average material handling cost/meter	\$ 0.004747	\$ 0.004747
Total material handling the cost	\$28.5	\$11.058

*Table 6. Comparison of Material Handling cost, Source: Data Analysis*

By simple modifications, the material handling cost has been reduced from \$28.5 to \$ 11.058 which is a huge difference (refer table 6). The modified plant layout has little changes with respect to the present layout in the plant. The material handling effort of 6002.55m is reduced to just 2329.5m which in-turn will improve the plant efficiency as the workers need not travel long distances for material handling.

### Conclusion

The research has established the effectiveness of systematic layout planning in enhancing the productivity of the plant through this modified facility layout planning. A case study was achieved in a frozen meat processing unit, a small scale industry. It was seen that by unassuming modifications the material handling cost has been

drastically reduced. As the chosen plant is small in size, the modified plant layout has little changes with respect to the present layout in the plant. However, the material handling effort has reduced from 6002.55m to just 2329.5m which in-turn will improve the plant efficiency as the workers need not travel long distances for material handling. This reduction in material handling could contribute to equivalent time and effort savings which would have been put into productive use. Thus the project resulted in a better layout with the minimum material handling cost and effort.

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PHOTO 1.  
Kužni pil  
PHOTO BY: JOSIP MESIĆ



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## ANALYZING CORE DRIVERS OF SOCIETAL CHANGES IN READY TO WEAR GARMENT INDUSTRY OF INDIA

### Abstract:

Markets is a social system supplying society's material needs. In today's scenario in India, because of fast socio-cultural changes, audiences have high exposures, information and knowledge about trends, availabilities, options and uniqueness of products available and entering the market. Hence businesses need a very careful and cautious handling of the aforesaid fact in strategic planning. Manifestation of dominating societal aspects viz. social media, societal & cultural changes, rise of newer market segments, vulnerable yet aspirational youth and growing consciousness in producers & marketers are propelling the wheel of change in marketing strategies, in Indian garment market in the light of aspects like change in mindset & attitude, changing life styles, quick changing buying & usage behaviors, changing social exposures etc. In this context, companies require to analyze

change drivers of the sector to consider changing societal elements and their impact on the target segments in order to frame sustainable marketing strategies. The significance of such "change drivers" has increased in recent years in India, especially after entry and success of "affordable Chinese product" in all the segments, making it essential to understand issues like changing mindsets and societal status of customers. Now such changes require in-depth study, analysis and inclusion in strategic planning to cater and engage the target better. This need of incorporation of changes drivers in strategic planning is studied in context to ready to wear garments sector of India as this sector it is not only about selling the product but it is all about selling a life style under changing customer perception. This study will help in understanding and incorporating changing societal influences to include them in strategic planning, product development and marketing with holistic approach.

### Keywords:

societal changes; strategic planning; core drivers

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## Introduction

Beyond doubt, marketing is an economic process that is affected by societal influences at every level, directly or indirectly, from basic to most competitive strategic aspects. Marketing needs to be treated more as social institution rather than truly commercial which needs to be handled carefully in the markets which itself is a social system supplying society's material needs. This new era of holistic marketing demand transformation of marketing philosophies in line to societal changes like changing social status, changing requirements, changing cultural values changing social recognitions, changing perceptions, changing mindsets etc. towards better value creation or rather, creating better customer perceived value in production, marketing and in customer services too.

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In today's changing market scenario in India, because of fast socio-cultural changes, audience have high exposures and information on every aspect ranging from quality to alternative products. Markets need a very careful and cautious handling of strategic planning. While developing a marketing strategy brands cannot survive only on traditional marketing models but require to add changing element that have started influencing the target segment more than the established ones. To frame sustainable marketing strategies such elements require in depth studies, understanding and appropriate inclusion in planning. Change in mindset, attitude, life styles, buying & usage behaviors, social exposures are now more prominent to be taken cared over traditional strategic approaches. The significance of such societal aspects has increased in recent years in vast & vital Indian market after entry of

Chinese products which have made it possible that "everything is available and affordable for every segment". Now class differences have vanished in product usage making customers to become more demanding, informed and cautious about "social self". Such mindset change and societal changes have changed the whole market scenario and made the producers & marketers to rethink, redesign and reengineer the strategies to sustain in highly competitive markets. It requires in-depth study, analysis and inclusion of such changes in strategic planning to cater and engage the target better.

This growing need of incorporation of societal changes in strategic planning is studied in context to ready to wear garments in India, as this sector is most influenced by societal changes, ever changing and highly demanding where it is not only about producing and selling the product but it is all about creating & selling a package of life style to establish relationship with the most vulnerable customer.

## GROWING SIGNIFICANCE OF SOCIETAL ASPECTS IN MARKETING PLANNING

Over the past several years Indian industries have shown tremendous growth in every sector building up on capacities at various levels, expanding its product base, incorporating innovative technologies and coming out with new avenues of businesses using latest tools like social media, e-commerce etc. Garment sector in India has also changed tremendously after the boom of Chinese garment industry which is practically making every country a target market. Costing, production, designs, labels, raw materials, accessories, every

aspect of garment business is either facing tough Chinese challenge or changing due to that pressure. Under pressure, Indian garment sector is now coming up as more organized sector than ever and searching new avenues through strategic reengineering. Such avenues require inclusion of societal changes in lifestyles, norms, values, culture, adoptability, demographic changes and consumption patterns etc. to make it sustainable. Some of the key growth drivers of the ready to wear garment industry in India are observed as disposable income, rise in nuclear family, larger young population, changes in consumer wants, quality products, affordable product attributes and improved buying intentions, desire for individual recognition, enhanced awareness etc. Under such growing market scenario, there has been a rapid increase in market-size of ready-to-wear clothing apparel brands in India dominated not only by local brands but by global brands too. Complex desires for cheap but branded products in exclusive & casual ranges has made marketers to realize that the product must be produced more audience focused rather than product focused to match changing customer perceived value and economic viability. Now the slogan “Survival of the fittest” has actually become “survival of the smartest” in the sector. This approach will be more efficient and delivering the right mix to the right group of people. The time now demands to incorporate such social changes in strategic decisions to broaden the aspect of customer socialization further in this era of social reforms and social media dominance. Now it is a time to include societal aspects in value dimensions and holistic marketing.

Garments is a serious business because product development here is the most venerable aspect than any other business as every collection, every season has to be unique in design and technique to give audience every time a new look which is a real tough task beyond any doubt. It's not like other products where, as per the market research you develop your product once in a year or two and market it in your targeted segment. It requires strategic planning and “smart understanding” of the continuous changes occurring in segment and to be always on toes as the sector operates in 3 to 4 seasons every year and well dominated by elements like new look, new product, best price, best quality, fast production technique, perfect timing and quickest placement of the product. This can't be achieved without through understanding of changing scenario and incorporating them smartly in strategies. Irony of product development here is, manufacturer's value creation is not taken by the customers and individual customer's value perception (CPV) plays vital role in most challenging way than any other product marketing.

In this new age, where social marketing has been taken as part of smart communication process the “societal marketing” is shaping up as part of better understanding the segment regarding product requirement, usage, preferences etc. which helps further in product designing, product development, branding, positioning and finally to its acceptance. This is an focused approach to deliver more value- product to the unique audiences of ready to wear garments. For a good marketing performance on economic fronts it becomes vital in current markets of competing global players. Now, a garment retailer must



determine how to successfully acquire, engage, attract, sell to, and retain the diverse & demanding customer who is always looking for something new & exciting under the influence of fast track market communication, product availability and choices. Global brands have made this even more easy as well as complex both. Now it is necessary to gauge the mindset of this style conscious, ever changing consumer correctly. Consideration of societal aspects will help in doing so and bringing forth the right product offerings to the right consumer at right time. With vast availability of options, changing trends, copy pasting of designs, higher buying powers and zero waiting time, the market is totally different than what it was 10 years back. Technology and socio-cultural shifts have enable new shopping behaviors, allowing consumers to deal directly with other fellow consumers, compare prices, customize products, gather latest information and get the best deal. In this dynamic environment, gaining in-depth insight into consumers' lives, attitudes and motivations is now a competitive advantage through "smart understanding" of the customer.

## LITERATURE REVIEW

[51]in write up "Megatrend Analysis-Putting the Consumer at the heart of business -A Euromonitor International Report" described that a megatrend is a shift in behavior or attitude under societal changes that has global impact and exists crosses multiple industries. Megatrend analysis allows companies to build a long-term strategy that is proactive rather than reactive, making sense of where they stand today, but also ensuring they have a plan to remain relevant moving forward

under changing market expectations for value. Therefore manufacturers and marketers need to study, analyze and understand mega trend change and aspect of Customer Perceived Value for their target audience in developing the product. This is not an easy task as this is influenced by changing market scenario where factors like societal changes, quick changing trends & demands, changing technologies and Globalization has a great impact. According to Investopedia "The consumer's perceived value of a good or service affects the price that he or she is willing to pay for it." -Perceived value is "the worth that a product or service has in the mind of the consumer."

Ready to wear garment market is very unique from a customer value perspective. As it was said by author [49], companies should emphasize more on providing unique added value rather than modifying core benefits in order to enhance customer value and loyalty.

Almost three decades ago it was noted by author that a competitive advantage of a firm comes from its capability to create value for its customers that exceeds the company's costs of creating it. This perception has not changed up to now as superior customer value delivery is still seen as a key to achieve and maintain competitive advantage. This had led to an increased interest of researchers to analyze customer value creation process and how customers perceive value.

Some authors suggested that customer's perceived value consist of 5 components: price, product quality, service quality, image and relationship between a customer and a vendor.

Ready to wear garment market is very unique from a customer value perspective. The core benefits or basic requirements for supplier are more or less

similar in all B2B & B2C industries. But the add-on benefits are very specific for each industry. As it was said by author [49], companies should emphasize more on providing unique added value rather than modifying core benefits in order to enhance customer value and loyalty. It is essential for suppliers in this industry sector to know what their customers expect, how they perceive value and what add-on benefits could be offered to them. It will be reviewed that what are the components that authors perceive as adding value for “value perception by customers” and what are the elements considered to be valuable for the customers in ready to wear garment markets.

The customer value creation has long been considered as a central marketing concept and the source of competitive advantage [35]. Nevertheless, customer value and its creation differ substantially in each industry. Therefore, literature suggest firstly starting with the value exploration process to gain understanding what customer thinks about, wants, does, and worries about. Only then they propose to proceed with value creation process utilizing all the resources and competencies available.

The company’s resources or assets used to create customer value are usually divided by authors to tangible (physical) and intangible (intellectual) dimensions [7]. [34] They have introduced the operand and operant concepts to describe company’s resources. They define operand resources as tangible and static goods offered to customer that the goods-centered model of exchange is based on. Whereas service-centered model of exchange is based on operant resources that are invisible and intangible assets such as core competences or organizational processes.

Usually authors use the term core product to describe the value created for the customer by delivering the physical or tangible goods. Core product can be viewed as the product in its most basic form. The concept of core product has been defined by some authors who suggested four levels of product offer: core or generic product, expected product, augmented product and potential product. The only difference is that authors emphasizes the difference between the core benefit, which is explained as the advantage the buyer actually wants and the generic product, which represents the actual physical product. Despite the industry differences, some authors distinguish the most basic and general dimensions of a core or physical product in general. [6] Operant resources are not material or physical assets but invisible and intangible processes of a company [34]. According to [16] operant resources are resources that produce effects such as customer value creation. According to the dominant service-centered view, based on operant resources, companies should identify and develop their core competences, expertise, substantial skills and knowledge and cultivate relationships with customers that involve them in developing the value propositions according to the specific needs of the target segments. [34] The service value has been, and will continue to be, a key construct of interest to marketers. The importance of service value emerges from consumer decision processes that are usually based on service value [18]. According to [12], service is any act, performance, or information that enhances the firm’s core product. Authors define customer service as the value adding attempts, activities and practices

that complement the core product provided by a company.

According to [15], core competence is a connection of skills, expertise and knowledge of the employees that enables the company to perform their tasks and accomplish results at a high standard. As mentioned above, the third component of service value in this paper is complementary service. The concept of complementary service has been characterized using various terms, including complementary selling, companion selling, complementarities, and complementary product or augmented product offering. In case of ready to wear garment market, the complementary to each feature service is offering the extended range of products that customers need in a production, presentation and selling processes. The range might vary from the materials and type of the customer to product presentation..

According to [34], companies should develop and cultivate relationships with customers by involving them in developing personalized, competitively compelling value propositions to meet their particular needs. One of the tools that are most often used to create relationship value for customers particularly in business-to-business marketing is customer relationship management [14]. Customer loyalty can be defined as a customer's engagement with a company and willingness to continue doing business with a company permanently[39]. According to some authors, loyalty is "a deeply held commitment to rebuy a preferred product or service in the future despite situational differences and marketing efforts having the potential to cause switching behavior". Behavioral loyalty is interpreted as the type of customer behavior such as repeat or

continuous purchasing from the same supplier or the act of recommendation [36]. Behavioral dimension was the first and mostly used dimension of loyalty by researchers. Even with current definition of loyalty includes more than just a behavioral dimension; some researchers still focus only on behavioral dimension of loyalty [22]. Attitudinal loyalty is described by author [20] as different opinions that create a general attachment to a product, service, or organization [22]. The criticism of behavioral loyalty by author [19], arguing that loyalty develops as a result of a conscious effort to evaluate competing brands, has led to the increased attention to attitudinal loyalty by authors and became an important loyalty dimension[22]. Attitudinal loyalty can be created and maintained by focusing on relationship building and creating customer's trust, commitment and again providing excellent service systems.

The study by author [8] has researched the relationship between the perceived core product value and customer satisfaction and loyalty. The most important dimensions of core product-quality and price - were measured. Authors have found that perceived product quality and perceived price fairness are both positively related to customer satisfaction which they explain by product quality and price being the essential concerns to customers and therefore effecting their satisfaction [8]. Despite the vast literature on customer service and satisfaction relationship, very few authors have explored the relationship between customer service and loyalty. Usually, the ones who did researched the indirect relationship via satisfaction because satisfaction is thought to be an immediate antecedent to loyalty Competence

can be described as intangible assets of the organization such as skills, knowledge or expertise, which are used to create value for customers. The increased authors attention and emphasis on competence as a way to create customer value has resulted in numerous studies researching the company's competence relationship with customer satisfaction and loyalty. Authors explain the relationship between company's competence and customer satisfaction based on the notion that meeting or exceeding customers' expectations achieves satisfaction. Nevertheless, there is still scarce of research on the relationship between competence and customer loyalty.

[5], while describing the marketing actions for the garment industry mentioned that designer label, a private label or even a little brand name, they are different on the level of the product exclusivity, perceived quality and reliability; but they are all talking about image marketing, and would like to use brand as a tool to seize larger market share in their market. [29] on their article on Branding of Clothing Fashion products argue that clothing with high branded images has a great impact in garment market to satisfy the desire of customers. Due to the increased awareness and consciousness, people are ready to spend any price for comfort and quality related to strong branded apparel.

## CORE DRIVERS LEADING SOCIETAL CHANGES

In order to understand the core drivers of societal change in the sector which in turn influence the product development, branding and marketing , a

focus group was established to get expert opinion, suggestions and feedback on core drivers of change in the sector . The focus group represented every kind of representative of the sector as under;

1. Fashion designer from Noida; Shweta Mehra from Rabbana fashion Pvt. Ltd.
2. Retailer from Karol Bagh; Anil Batra from Frontier Raas
3. Merchandiser from Noida; Ankur Batra from Ecrú fashions
4. Wholesaler from Chandni Chowk; Anil Soni from Bhairav embroideries Pvt. Ltd
5. 05 Customers from South Extension, Okhla, Karol Bagh , Connaught place and Chandni Chowk
6. Production manager from Okhla industrial area -garment factory Sanjay Sharma

Personal interaction with open ended questions lead the findings on the change drivers to some specific factors which were considered and emerged as most dominating factors of the sector. Following factors have emerged as the core drivers of societal change that influence the buying behavior of target segments and in turn enforce need of incorporating such societal changes into strategic formulation.

### Demographic and Psychographic Change

Changing status of women in society and positive mind set change towards the same have changed the way of life in Indian markets too. In each segment we could observe distinct taste and likings which does not depend on the disposable income of a person rather than mind set and the life style of the consumer at large.

Demographic shifts such as urbanization, migration, higher life expectancy, falling birth rates and the increasing population of elderly people, are combining to reshape consumer lifestyles and purchasing decisions today.

### **Technology Impact**

Today, customer has become more informed and recognition prone and each segment is getting affected by technological changes too in different ways. Though the intensity depends on their level of thought, profession, education, and exposure to the world but its influence is beyond any questions. The constant innovation within technology and ever-updating technological processes are driving consumer trends in current garment markets.

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### **Changing Values**

The changing values, priorities, perceptions, attitudes, beliefs and motivations shape decision-making, from policy to purchases. Generational shifts, cultural changes, as well as changing socio-political scenarios such as concepts like Smart Cities and Smart Homes, Healthy living, ethical Living, Reinventing Gender Roles, Changing Family Dynamics, Multiculturalism etc. are changing the behaviors in buying as well as in perceptual process.

### **Middle Class Extension**

Marketers and producers of the sector feel boom, extension and even retreat about the middle classes in India. At the same time, the middle classes, in developed markets, struggle to maintain their economic position, exemplifying the unique features like the growth of discounters

and on other hand trying to jump out of the strata. This contrasting trend heads on placing more emphasis on the consumer experience as social being and as a vehicle for boosting sales on other face has lead the garment businesses to new dimensions.

### **Shifting Market Frontiers**

As the areas of the markets become over-explored, over-populated, or otherwise have reached their maximum potential, marketers gain prominence for their unexploited potential. We call this “Shifting Market Frontiers” and there is need to adapt to the changing demographic, economic and technological reality, bringing new markets from frontier into the spotlight.

### **Generated needs**

Motivation behind consumers’ purchasing decisions has changed in today’s scenario vis a vis factors like their quick societal & economic status change. At its core, the idea behind is “with more brands available even at more price points than ever before, consumers can spend more on the things that matter to them to maintain that acquired status, ego, image etc.”. Brands are playing with “generated fake/genuine needs” for such changing customers. Changing “self concepts” have started dominating the market demands in garment industry.

### **Reinvented Shopping**

How we buy goods is constantly in flux as economic and technological realities change every day for businesses and consumers. Shifting values and access to the internet have created a great deal of new competition for customers. Consumers make

purchases across many platforms in sectors like garments and merchants must be prepared to engage anytime & anywhere as new buying habit shift than any other sector. Now the ideal customer journey weaves a brand into the entire experience, providing value before, during, and after the purchase, converting a transaction into a relationship. Consumers are increasingly expecting retailers to engage with them in ways that suit their interests and lifestyle. Aspects like selling via social media and social messaging (s-commerce), internet-enabled subscriptions, pop-up shops, native marketing and many more innovative methods that offer new ways to the growing markets of high competition. Garment market is among the leading ones in this category.

### **Connected Consumers**

Connected consumers are the new trend of markets now, not only for references and opinion but also for feedbacks and supports. Over the years, international brands like Marks & Spencer, Lacoste, Swarovski, H&M, Mango, international designer brands like Chanel, Gucci, Karl Lagerfeld, Armani, Tommy Hilfiker are among a host of others who have come into India through the franchise route using this connectivity aspect of consumers worldwide. These digital connections are underpinning shifts in how consumers live, work, and shop along the globe.

### **Changing Culture, Subcultures and Cross cultures**

Culture refers to the shared beliefs, behaviors and attitudes that characterize a society. Culture prescribes the way in which one should live. One could find a difference in style, price preferences,

color choice, fashion and even in size requirements some times. It is seen that economic environment and socio-cultural changes and its effect on buying habits of Indian consumers have led to a noticeable change in the lifestyle of people and consequently the buying behaviour of people, especially in the urban areas.

### **Social Class Restructures**

The rise of the middle class in India is creating opportunities for many companies especially in garment sector. On one hand, they want their perceived value and on other they wish it to be cheaper too. Companies have managed to capture this change in the form of market share by introducing "lower echelon" brands without damaging their luxury brands. Pantaloon, W, Biba, Good Earth, Life-Style, Feb India are example of such consideration in strategy.

### **Changing Roles of Reference Groups, Opinion Leadership and Family Structures**

With changing roles in family structures, decision making, quality of information, reference group dynamics, opinion leadership the scenario is changing in garment sector too. Professionals of production and marketing need to get aware of this changing scenario by using different techniques to reach true opinion leaders to accommodate their references on strategies as in clothing industry it has a great deal of influence.

### **Perceived value, global awareness, service preferences and brand flooding**

Ready to wear garment market is very unique from a customer value perspective. Changing Global exposures on styling, has emerged greatly under global influences. Customers have exposures of

global brands now and also they get exposure on movies, net, you tube etc. for recent trends, changing trends and current successful products. Accordingly customers try to buy /use those for themselves

## CONCLUSION

Core drivers of change are responsible to bring societal changes into importance in strategic formulation and making its marketing significance felt and recognized over traditional marketing ,production & branding strategies. In garment industry , especially in ready wear sector societal aspects helps to understand the changes occurring and predict those occurring in the future .Is a now a critical tool for making strategy shift from reactive to proactive in context to present scenario. Societal aspect analysis helps businesses better anticipate market developments and lead both incremental and disruptive change for their industries & markets. social marketing has been taken as part of communication process where as societal marketing should be the part of understanding the segment regarding changing product requirement, usage, preferences etc. which will help further in designing, product development, branding, positioning and its acceptance in markets towards demand and production accordingly.

The Indian customer has undergone a remarkable transformation in last 20 years in this sector. Organized retail with its variety of products and multitude of malls and supermarkets is fueling their addiction for newer expectations. But one thing is true beyond doubt that Most customers' preferences change according to the societal

changes occurring around them which in turn bring change in fashion oriented requirements. Most consumers have grown up with television, the Internet, and have been exposed to the standards of living and consumer culture abroad. So, the technology, ideas and lifestyles are moving concurrently and quickly in this sector too like many core sectors especially after the global brand boom in last decade. People buy branded clothes because of their perceived quality and value. People wear branded clothes not only because of comfort but it is a matter of recognition and uniqueness for them now . People get influenced by design and style offers of the “branded” garment industry but from core of heart it is a matter of getting value for money, time and efforts against their formed expectations for it through environmental stimuli received from company communication, competitors, opinion leaders, references etc. Now the reasons why companies need to adopt the societal marketing concept lies within these elements of change coming from lifestyles, cultures status, trends, behaviors and societal changes . This study will help in understanding the need for incorporating changing societal influences in strategic planning towards development and marketing of right products .

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## SOCIAL ROLE OF THE UNITED NATIONS IN RESOLUTION OF INTERNATIONAL CONFLICTS

### Abstract:

The matter of role and influence of the United Nations in resolution of international conflicts is decisive because they demonstrate their legal presence at the national as well as international level. Throughout the paper, the authors insist on determination of resolution of international conflicts pursuant to Chapter VII of the Charter of the United Nations. The basic hypothesis of the paper has been established on the premise by studying relevant provisions of 1945 Charter of the United Nations, 1949 Geneva Conventions and two additional protocols of 1977, United Nations resolutions, international treaties and international customary rules of war, it is possible to accurately determine the role,

character and significance of the United Nations Security Council and the United Nations General Assembly in resolution of international conflicts. Furthermore, it is of interest to note that decisive significance for confirmation of the hypothesis lies with the objective image of the United Nations presented through mechanisms of the international law for resolution of armed conflicts. Furthermore, throughout the entire paper, the authors present international conflict resolution instruments as well as applicable legal consequences of effective resolution of the same, and ultimately, in the concluding considerations, they confirm that actions regarding resolution of armed conflicts are current, essential and timely.

### Keywords:

international conflicts; United Nations; Charter of the United Nations; United Nations Security Council; United Nations General Assembly

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## Introduction

Since international law entities represent an important segment in sustainability and maintenance of global, regional, and national legal and political order, it is significant to determine the manner in which legal structures are defined and perceived in resolution of international conflicts. Accordingly, a separate central analytical and experimental section of this paper is dedicated to the primary role of the United Nations as an entity dealing with resolution of international conflicts by force.

Accordingly, research problem in this paper is oriented at insufficiently scientifically founded insights into international theoretical, practical and legal resolution of armed conflicts by the United Nations. Positions and proposals will be used for the purpose of elaboration of modalities and methods applied to go beyond status quo of the researched matter itself.

Therefore, a race against time to find a peaceful resolution as quickly as possible led to defining of the primary subject of research entailing a set of legal rules determining the role of the United Nations in resolution of international conflicts and relevant characteristics of the notion of an international conflict and the purpose of the United Nations in resolution of the same will be simultaneously researched in detail. The subject of research also pertains to emphasising general and special principles of the international law and a certain emphasis is also placed on the notion of justice itself as an absolute virtue and the basic awareness module from the aspect of quest for resolution for an international conflict. Bodies of the United Nations (General Assembly and Security Council) whose competence is fully dedicated to overcoming international conflicts (wars) are reviewed in the

context of the paper itself and their positions will be objectively presented through the primary research results alone.

Adhering to permanence of legal axioms in fixing of a methodological framework in this article, the research concerns the United Nations and, i.e. nature and role of this international legal entity in resolution of international conflicts.

A basic hypothesis was methodologically established in accordance with the problem, subjects and objects of research. By studying relevant provisions of 1945 Charter of the United Nations, 1949 Geneva Conventions and two additional protocols of 1977, United Nations resolutions, international treaties and international customary rules of war, it is possible to accurately determine the role, character and significance of the United Nations Security Council and the United Nations General Assembly in resolution of international conflicts.

For the purpose of demonstration of the objectives of the research, it is necessary to investigate and scientifically confirm all relevant characteristics, nature and role of the most significant resolutions, recommendations, conventions and other legal acts of the United Nations in resolution of armed conflicts. All this will also facilitate verification of the fundamental hypothesis itself through the most significant characteristics of the international law, justice and equity allowing a systematic presentation of the results of the research.

Research of the relevant topic would be futile without application of scientific methodology of law. Accordingly, three main legal methods are applied: dogmatic, normative and sociological method. Notions of international law entities, justice and equity as they are will be interpreted through application of the dogmatic method within the framework of formation of results of the research, i.e. resolution of international conflicts by the United

Nations will be interpreted through applicable international legal acts. Interpretation of international legal documents of the United Nations in the course of resolution of international conflicts through use of force will facilitate verification of the fundamental hypothesis. Application of the normative method in this paper, shall allow determination of measures of impact of international legal acts of the United Nations on other legal acts (act of influence) initially reflected in definition and interpretation of use of the normative system for resolution of armed conflicts. The normative method is also used to identify sources of law (in this case, sources of international law), determine relevant legal rules (international law rules enshrined in the Charter of the United Nations - Chapter VII: Action with respect to Threats to the Peace, Breaches of the Peace, and Acts of Aggression) as well as their structure which also regulate the subject of research in this paper. Application of the sociological method in this paper facilitates insight into the international law entity in a wider sense entailing examination of relationship of legal norms of international legal acts and other phenomena such as social, economic, sociological, political, philosophical and other also monitoring the events before, during and after international conflicts. This paper elaborates on the international law, justice and equity in relation to armed conflicts and their timely applicability on the same.

The article consists of four sections: (1) Introduction; (2) International conflicts; (3) Role of the United Nations in resolution of international conflicts; (4) Conclusion.

## International conflicts

Since 1945, the world has only seen 26 days without any wars. Frequency of wars in the world is increasing

since 1945 - 3 wars, since 1955 - 15 wars, since 1975 - 21 wars, since 1985 - 33 wars, since 1995 - 43 wars, and since 2005 until today - 65 wars which continue to multiply on the daily basis. [1]

On the basis of the above indisputable facts, there is a clear conclusion that international conflicts are not humane as such even though they are sets of rules, armed (international) measures and requirements used to overcome an adversary and impose one's own (victor's) will. By interpreting history of ancient peoples (India, Rome, Greece etc.) it is apparent that military commanders were restricted from inhumane actions and use of excessive force, also pointing at application of *ius ad bellum* (right to war) as a significant characteristic of primordial nature of state "sovereignty". Therefore international conflicts have never been interpreted as wild use of uncontrolled force and lack of ability of belligerents to use that force freely and without any restriction. [2]

Once, but also in present time, it has been specifically pointed out that ethical considerations, humanity, law and justice were decisive and crucial factors in restricting excessive force in international conflicts. Accordingly, it is necessary to remind one of Hugo Grotius who wrote in *De jure belli ac pacis* (On the Law of War and Peace) that the rulers and commanders avoided use of "secret" weapons in international conflicts because they might become victims just like regular warriors if the opponent were to use the same. Namely, fear of commensurate retaliation has been a reliable means of prevention of violations of rules of warfare. [3]

Professor Vladimir Đuro Degan considers the notion of an international conflict "wider than the notion of war, because some of those conflicts do not always lead to recognised state of war by all its participating states". [4] Accordingly, professor Zijad Hasić interprets international conflicts as a "set of violent

activities whereby a state wishes to impose its own will on another state and wishes to achieve that aim using any means". [5]

Characteristics of international conflicts imply two or more belligerents, rules of war - codified law of war - respect for international humanitarian law (Geneva and Hague law) as well as general customary rules of war. Accordingly, it may be concluded that the characteristics of international conflicts are represented through an armed conflict between states and such an international conflict represents a set of coercive measures used by each warring party to submit the other to its will. [6] [7]

Matters of war or peace are equally included in areas of international politics as in the matters of conflict as such. War may simply be defined as the most ubiquitous means of conflict among political groups with the primary objective of destroying the enemy or forcing it to accept directly dictated terms of peace. Ancient Greeks had two words denoting war, specifically stasis and polemos. Stasis only denoted wars among Greeks while polemos was war against barbarians. Until the French Revolution, war was a "royal sport" of rulers in which professional armies participated. [8] Therefore the very notion that diplomacy strives to avoid wars was swayed and brought into question from an allegedly realistic basis because diplomacy of Louis XVI, Napoleon or Bismarck truly invested more efforts into preparations for a war instead of avoiding one. [9]

However, modern international humanitarian law is primarily enshrined in four 1949 Geneva Conventions and two 1977 protocols and it categorises all international conflicts as: 1) International armed conflicts, 2) Non-

international armed conflicts, and 3) Internal disturbances and tensions. [9] The international armed conflicts mean resorting to armed force among international law entities (states). Therefore, under Article 1(4) of the additional 1977 Protocol I relating to the Protection of Victims of International Armed Conflicts, the following are deemed international armed conflicts: "conflicts in which peoples are fighting against colonial domination and alien occupation and against racist regimes in the exercise of their right of self-determination, as enshrined in the Charter of the United Nations and the Declaration on Principles of International Law concerning Friendly Relations and Co-operation among States in accordance with the Charter of the United Nations" [10] An international armed conflict is interpreted as an armed conflict formulated through long lasting armed violence among authorities and organised armed groups or among non-governmental armed groups within a state. Accordingly, under the additional Protocol II relating to the Protection of Victims of Non-International Armed Conflicts a non-international armed conflict represents: an armed conflict "between its armed forces and dissident armed forces or other organized armed groups which, under responsible command, exercise such control over a part of its territory as to enable them to carry out sustained and concerted military operations and to implement this Protocol." [11] Internal disturbances and tensions (riots, isolated and sporadic acts of violence) are not armed conflicts, but they imply means to incite conflicts.

A very important segment for conduct of war activities is the Lieber Code which took effect in April 1863 and it is significant because it represents

the first attempt to codify existing laws and customs of war, however the code did not have the status of an international treaty since it was only intended for Union soldiers in the American Civil War. [12] It is also necessary to mention the Martens Clause prescribing that primarily rules prescribed under the 1907 Fourth Hague Convention respecting the Laws and Customs of War on Land and other conventions shall be applied in armed conflicts and if there are no such rules, the “principles of the law of nations, as they result from the usages established among civilized peoples” shall apply and if there are no such rules, belligerents must apply principles of international law arising “from the laws of humanity, and the dictates of the public conscience.” [13]

In order to humanise war, alleviate and improve position of direct participants in wars, rules of war have been systematised and codified and became popularly known as the law of Geneva and law of the Hague. The law of the Hague determines rights and obligations of belligerents during hostilities and restricts methods of inflicting losses on the enemy. It consists of conventions adopted at 1899 and 1907 Hague Peace Conferences concerning the method of warfare. The law of Geneva concerns protection of armed force members who do not actively participate in hostilities and mainly pertains to rules of humanity embodying the principle of humanity. [13]

### **Role of the United Nations in resolution of international conflicts**

International (or intergovernmental) organisations are important international law entities whose reach and authority are related to

multiple states and they may possess own legal personality or they may be recognised as being entities of the international-law. The most important international organisation are the United Nations established with the aim of promotion of international cooperation as well as preservation of world order, peace and prosperity.

### **Notion, establishment and objectives of the United Nations**

Outbreak of the World War II following invasion of Poland by the Nazi Germany on 1 September 1939 led to the greatest failure of the League of Nations. Regardless of this failure, the very idea of maintenance of international peace through an universal international organisation persisted nonetheless. In order to avoid experience of non-participation of the United States of America in the League of Nations, Article 110(3) of the Charter of the United Nations foresaw it coming into effect only after deposit of ratifications by all five permanent members of the future Security Council (China, France, Soviet Union (Russia), the United Kingdom, and the USA) and majority of its other signatory states. Of course, this condition was met on 24 October 1945 when a new international organisation of a universal character has been created. Directly afterwards, the Charter of the United Nations has also been ratified by all remaining signatory states. [14]

Therefore, it may be stated that the United Nations are a universal international organisation for maintenance of peace and security in the world, development of good relations among neighbouring states, development of economic cooperation, spreading of tolerance and promoting respect for human rights and fundamental

freedoms of humans and citizens, and the above aims are formulated in Article 1 of the 1945 Charter of the United Nations (hereinafter: the Charter) [15]. Accordingly, it may be clearly concluded that the United Nations have their own legal personality, separate from Member states and most constitutional acts of international organisations recognise their ability to express the legal personality in the territory of the Member states. [16]

### **Membership and principles of the United Nations**

Admission to membership of the United Nations involves two elements: (a) compliance with material conditions for membership in the Organisation under Article 4(1) of the Charter and (b) appropriate admission procedure. [17] Members of the United Nations may be classified as founding states and subsequently admitted Members. The founding states (original Members) are states which took part in the founding Conference in San Francisco in 1945, while subsequently admitted Members are those states which went through the determined admission procedure after the Organisation has been established. [17] The United Nations Member admission procedure takes place in three stages. The first stage entails submission of an admission request by the state wishing to become a Member of the Organisation. The request should contain a declaration of preparedness of the applicant to accept the obligations contained in the Charter. In the second stage, the request is examined by the United Nations Security Council, specifically material compliance with the conditions for admission of candidate states within the meaning

of Article 4(1) of the Charter. Therefore, the role of the Security Council is to provide initiative and control. The third and the final stage entails deciding on admission by two-thirds majority of those present and voting at the General Assembly of the United Nations. [17]

It is necessary to comply with the principles enshrined in Article 2 of the Charter to allow the United Nations to achieve the objectives defined in Article 1 of the Charter. Precisely the above principles create instrumental support needed to achieve the objectives of the United Nations.

### **Bodies of the United Nations for resolution of international conflicts**

The Charter itself specifies the main bodies of the United Nations, specifically: General Assembly, Security Council, Economic and Social Council, Trusteeship Council, International Court of Justice, United Nations Secretariat. [15] Aiming to achieve better, clearer and more credible elaboration of the role of the bodies of the United Nations for resolution of international conflicts, the significance, role and character of the United Nations General Assembly and of the United Nations Security Council will be particularly set apart. Furthermore it is important to emphasise that the above bodies of the United Nations are decisive for timely and successful resolution of international conflicts and this would be practically possible without the United Nations General Assembly and the United Nations Security Council. The General Assembly of the United Nations is the body where all Members of this international organisation are represented. Each Member has one vote in this body. It meets each year in regular sessions and special sessions are

held if necessary. The General Assembly works in plenary sessions and committees and agenda matters are normally considered in detail by appropriate committees, but the General Assembly always renders its decisions in plenary sessions. International legal acts of the General Assembly are resolutions and they are not legally binding, but they may be evidence of creation of an international custom. [18]

Under Article 11(1) and (2) of the Charter, the General Assembly may the general principles of co-operation in the maintenance of international peace and security, including the principles governing disarmament and the regulation of armaments, and may make recommendations with regard to such principles to the Members or to the Security Council. Accordingly the General Assembly may discuss all matters of maintenance of international peace and security brought before it by and Member of the United Nations or the Security Council or a state which is not a Member of the United Nations. Also, under Article 13(1) of the Charter, the General Assembly gives recommendations aimed at promoting international co-operation in the political field and encouraging the progressive development of international law and its codification. It is necessary to point out that the General Assembly considers and approves the budget of the Organisation and considers and approves all financial and budgetary arrangements.

In 1950, during the Korean crisis, the General Assembly adopted resolution 377 (V) - "Uniting for Peace". On the basis of this resolution, the General Assembly had the opportunity to recommend collective measures in case of aggression and severe violations of the international law only once

and afterwards it constantly referenced the aforementioned resolution when establishing United Nations peace operations and convening special sessions, but it did not use it as the basis for collective measures. [19]

The United Nations Security Council consists of 15 members. The permanent members of the Security Council are: China, France, Russia, the United Kingdom, and the United States of America. The General Assembly of the United Nations elects ten other Members of the United Nations to be non-permanent members of the Security Council, due regard being specially paid, in the first instance to the contribution of Members of the United Nations to the maintenance of international peace and security and to the other purposes of the Organisation, and also to geographical distribution and representation of states in compliance with Article 23(1) of the Charter. Under Article 23(2) and (3) of the Charter, the non-permanent members of the Council are elected for a term of two years and in the first election of the non-permanent members after the increase of the membership of the Security Council from eleven to fifteen, two of the four additional members shall be chosen for a term of one year. A retiring member is not eligible for immediate re-election. Each member of the Security Council has one representative.

The Security Council is devised as an operative body. For it to act rapidly and successfully, it is organised in a manner allowing it to discharge its duties continuously which means that each member of the Council has its permanent representative at the seat of the organisation. [20]

The Security Council is entrusted with competence in two most important sectors of activities of this



Organisation, specifically: (1) maintenance of peace and security and (2) an electoral function which indispensable for functioning of the entire mechanism of the United Nations. The Charter itself foresees two mechanisms for maintenance of peace and security in the world: (1) peaceful resolution of disputes and (2) taking collective measures regardless if they are preventive or coercive. [20] Competence [20] of the Security Council may be divided to the primary and secondary competence. The primary competences consists of preservation of international peace and security under Chapters VI and VII of the Charter. Unlike the primary competence, the secondary competence of the Security Council entails functions not directly related to maintenance of international peace and security (e.g. recommendation on election of the General Secretary of the United Nations).

The General Assembly of the United Nations has general authority to consider, discuss and interpret matters initially concerning peace and security, but it is also additionally entitled to resolve individual cases by applying the principle of subsidiarity to the Security Council. Therefore, it may be clearly concluded that the United Nations Security Council is the most important body of this international organisation and its paralysis means paralysis of the entire Organisation. The 1950 “Uniting for Peace” allows the General Assembly to convene an emergency special session within 24 hours upon a request of the majority of Organisation Members or a procedural resolution of the Security Council which is not subject to the right of veto at the same time if the Security Council is unable (lack of unanimity of the permanent members) in pursuit of preservation, defence and

maintenance of peace and security. [21] In essence, the above resolution made it easier for the General Assembly - if the Security Council is paralysed - to take over finding of a solution for individual matters and recommend solutions depending on voluntary support of the Members. However, the authority thereby received by the General Assembly have not even remotely approached those foreseen for the Security Council. [21]

The main and key responsibility of the Security Council is maintenance of international peace and security (Article 24(1) of the Charter). When it determines that there is a threat to the peace, breach of the peace, or act of aggression in a part of the world (Chapter VII of the Charter), it may in addition to recommendations, also render decisions binding for all Member states. In addition to the primary competences, the Security Council recommends the General Assembly admission, suspension, and expulsion of states from membership in the United Nations and cooperates with the General Assembly in a parallel procedure of election of judges of the International Court of Justice in the Hague. [4]

In accordance with the above, it may be concluded that the competences, nature, and role of the General Assembly and the Security Council are intertwined and that both bodies primarily and through subsidiarity affect each other.

### **United Nations Agenda for Peace**

The overarching, main and key objective of the United Nations is preservation of world peace and security. Upon conclusion of the Cold War and fall of the Iron Curtain it appeared that, somewhat belatedly, golden age of functioning of the United

Nations began. The Agenda for Peace, one of the most important present-day peace strategies originated in that period. Such a concept of peace axioms for preservation of world peace was created in 1992 by Boutros Boutros-Ghali, former General Secretary of the United Nations. [22]

Word “peace” is used in the Charter in multiple places and in several ways, but the term is never clearly defined. In the system of “classical” international law of late 19th and early 20th centuries, “peace” was understood very simply - as mere absence of war. United Nations’ understanding of the word “peace” surpasses this narrow definition and concerns a global and dynamic process whereby social justice, respect and enjoyment of human rights and friendly relations between all countries should be achieved. Therefore the Charter does not obligate all the Member states only to departure from use of force and violence in pursuit of their goals, but also calls upon resolving conflicts peacefully and developing cooperation in all fields. [22]

Typology of peaceful political resolution of conflicts and instruments used to resolve international conflicts is basically transferred into the Agenda for Peace in 1994 by the then General Secretary of the UN Boutros Boutros-Ghali in four stages: (1) prevention of international conflicts, (2) peacemaking, (3) peace-keeping, and (4) post-conflict peace-building.

#### Prevention of international conflicts

The main objective of preventive diplomacy is preventing violent conflicts. In order to achieve and implement the above objective, the following means of prevention are used in a timely manner: diplomacy, trust building measures, early warning

system, demilitarised zones, preventive deployment of United Nations troops.

Two terms within the first stage of the Agenda for Peace having the greatest importance are preventive diplomacy and preventive deployments. Preventive diplomacy means use of diplomatic assets with the aim of preventing occurrence of conflicts between two parties, preventing escalation of existing conflicts and, if there is still an open conflict, to limit it. Preventive deployments entail deployment of troops tasked with prevention of outbreak of a conflict. A preventive deployment of United Nations troops within a state may only occur with prior consent of government or all parties involved in the conflict. The same procedure also applies if a state feels it is threatened by another and if it submits a request for preventive deployment of UN troops on its side of the border.

#### Peacemaking

The main objective of peacemaking is timely bringing of the conflicting parties to negotiating table and achieving peace agreements. In order to realise and achieve the aforementioned objective, the following legal means and means of coercion are used in a timely manner: intermediation, legal decision, International Court of Justice, non-violent sanctions, peacemaking by United Nations troops, and military force as the last resort for successful peacemaking.

Peacemaking is a process taking place until conclusion of a peace treaty or a ceasefire agreement and it includes activities aimed at bringing the conflicting parties to a negotiating table specifically using the non-violent means described in Chapter VI of the Charter of the United Nations.

### Peace-keeping

A direct objective of peace-keeping is stabilisation of situation and monitoring of compliance with agreements by the parties previously in conflict. In order to achieve the aforementioned objective, the following coercive means of the international law are used in a timely fashion: monitoring missions, United Nations peace-keeping troops, buffer zones, providing humanitarian aid. Therefore these means may be succinctly labelled “comprehensive conflict management”.

Peace-keeping assumes presence of the institution of the United Nations at the site, with prior consent of the conflicting parties. The United Nations have at their disposal lightly armed soldiers, observers, and police officers and all of them are tasked with ensuring and implementing ceasefires and maintaining achieved peace agreements. Peace-keeping is a technique also allowing protection against outbreak of conflicts and, on the other hand, strong enforcement of peace. [22]

### Post-conflict peace-building

Key objective of post-conflict peace-building is restoring the legal order and government system of countries directly affected by devastating effects of war activities by belligerents. In order to achieve the aforementioned objective, the following post-conflict peace-building means of the international law are used in a timely manner: disarmament, mine clearance, return and integration of refugees, assistance in restoration of state order (e.g. elections, government institutions), joint projects of recent adversaries. [22]

Post-conflict peace-building represents restoration and/or improvement of government structures once the conflict is successfully ended and it proved successful in determination and consolidation of peace and prevention of reviving of old conflicts. This includes: demobilisation of former warriors, their disarmament and reintegration in the civil society or building an administrative, cultural, social and legal system in compliance with the principles of a legal democratic state.

### Conclusion

Waging of numerous wars represents a hard and difficult reality of the global world order. Wars are waged for a variety of reasons, justified or otherwise, but despite this, the international humanitarian law strives to humanise wars themselves and war actions through the 1949 Geneva Conventions and the 1977 Additional Protocols.

In the course of historic development of the United Nations, a special place belongs to conventions adopted in pursuit of peaceful (1899 and 1907 Hague Conventions for the Pacific Settlement of International Disputes) and coercive resolution of armed conflicts which accordingly primarily strive to build a modern peaceful dispute resolution system. Methods of peaceful resolution of disputes (diplomatic means, institutionalised means and means leading to a binding judgment or award) represent an original and primary pointer towards the fastest and most flexible peaceful resolution of armed conflicts under patronage of the United Nations.

Why have some agreements been successfully implemented while the others failed? Why is it impossible to apply in the contemporary world those axioms advocated by Thomas Woodrow Wilson and Thomas Jefferson? What are the determinants of success, appropriate strategies, priority objectives and the very link between short-term application and long-term peace-building? Answers to these and other numerous questions depend on quality and quantity of preventive action by entities, mechanisms and other factors involved in preservation of international peace and if the determined objectives cannot be achieved through those means, the second step is timely application of coercive means by the United Nations.

Accordingly, in conclusion of this research enterprise, it is important to emphasised that the role of the United Nations is indispensable in resolution of armed conflicts, but it is very important to act on time because it is easier to put out a flicker than raging fire of large proportions. Process of prevention and early resolution of international conflicts requires ongoing, intensive, purposeful, selfless efforts and affirmation of heads of state, foreign ministers, prime ministers, international law entities, universal and regional international organisations of all ranks and also professors and legal professionals active in the field of international law as well as relevant diplomatic missions, states and regions at micro, macro and global levels. Positions and proposals directly and indirectly linked to the topic of the paper are elaborated through the following aspects:

- Global interest of maintenance of peace and security should have supranational primary character while interests of great powers and

permanent members of the Security Council (in this case limitation of the veto power) which would possibly depart from the above objective represent the secondary interest. The secondary interests should never bring into question the main objectives and principles of the United Nations. If such policy of the United Nations fails to deliver the desired result, they should embark on pursuit of their objectives through coercive means (a harsher policy permissible under the Charter);

- Better coordination of bodies of the United Nations for resolution of international conflicts, exclusively the General Assembly and the Security Council (action and reaction body) and not permitting belligerents to disobey and violate acts of international law (resolutions, conventions, agreements etc.) and coercion of the same to respect legal acts of the international law;

- Greater involvement and dedication of all participants in the Agenda for Peace of the United Nations as well as execution and high-quality defining of the current situation in an international or a non-international armed conflict aiming to achieve faster and more effective restoration of peace and general security.

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## AGRO-ECONOMIC EFFECT OF GEORGIAN AND EUROPEAN BEEKEEPING MARKET

### Abstract:

The European Union has expanded a number of times throughout its history by way of the accession of new member countries to the Union. Former USSR republic of Georgia and the EU have maintained relations since 1996. The government expressed a desire to become a member state of the EU. To enhance their relationship, the EU and Georgia have signed several agreement in recent years. EU encourage Georgia to further approximate with European legislation and standards and initiated the process of supporting Georgian economy for further integration into EU. In recent years the European Union has been supporting rural and agricultural development of Georgia, the country with the the longest history of beekeeping and honey production. On 27 June 2014, The European Union and Georgia signed an Association Agreement. The agreement introduced a preferential

trade regime - the Deep and Comprehensive Free Trade Area. Based on having better-matched regulations, this regime increases market access between the European Union and Georgia. In this work, alongside with statistics and brief history, we present our view of the future of this cooperation which can be based not only on export of honey to the EU market, but the Georgian Bee itself. It is estimated that pollinators, mainly honey bees, contribute at least 22 billion EUR each year to the European agriculture industry. They ensure pollination for over 80% of crops and wild plants in Europe. In recent years the quality and area of pollination in Europe has been decreasing. These issues can greatly benefit from the specific characteristics only Georgian Bee is known for, like longest tongue (proboscis) and exceptional gentleness. We strongly believe, that due to various strengths and features only this specie boasts, the export of Georgian Bees will lead to very fruitful collaboration for both parties.

### Keywords:

Agro-Economic effect; Trade; Honey bee; Queen bee; Honey; Beekeeping; EU economy; Pollination; Agriculture; Georgia; Market; ENPARD

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## Introduction

Georgia produces about 4 000 tones honey per year. There are five types of honey in large amounts: acacia honey, blossom honey, alpine honey, linden honey and chestnut honey. Most large beekeepers (more than 100 beehives) are engaged in transhumance and harvest honey twice: in late spring (highly depends on the weather) and late summer. Chestnut and linden honey are mainly harvested in Western parts of Georgia [1]. Beside these types, there are specialist honeys in Georgia such as Jara or wild honey, rhododendron honey (known as “mad honey” owing to containing grayanotoxin), honey from laurel, willow, solidago (goldenrod) and others. However, their output is quite low.

## Understanding transition

Through the EU-funded ENPARD Programme Georgia is currently benefiting from EUR 52 million in support for agricultural and rural development. Launched in 2012, the Programme aims to reduce rural poverty and boost the production of food in Georgia. On 27 June 2014 The EU and Georgia signed an Association Agreement, which entered into force on 1 July 2016. The agreement introduced a preferential trade regime - the Deep and Comprehensive Free Trade Area (DCFTA). Based on having better-matched regulations this regime increases market access between the EU and Georgia.

In 2017 Georgian honey entered European market. According to European Commission report - EU Honey production is about 200 000 t. Honey imported into the EU equals to 165 500 t.

Data processing: Launched in 2012, the program aims to reduce rural poverty and boost the production of food in Georgia. Which positively reflected on the number of scales and dynamics of product growth. In the diagram 1 and 2 is presented numbers of beehives in Georgia (ths, beehives) by ENPARD, Implementing partner : Association of Young Economists of Georgia.

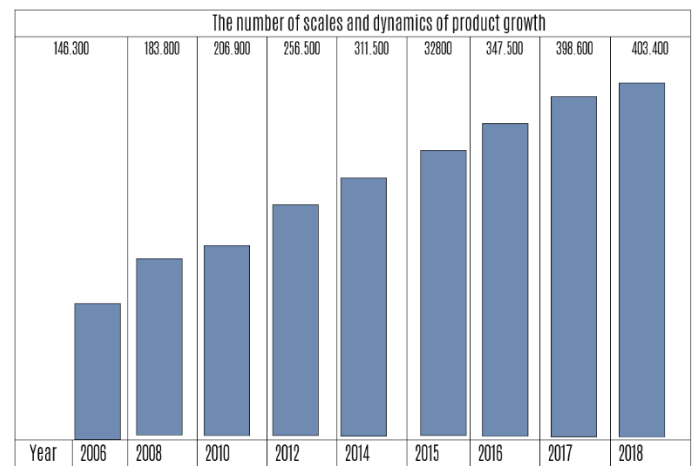


Figure 1. Numbers of beehives in Georgia (ths. beehives) by ENPARD

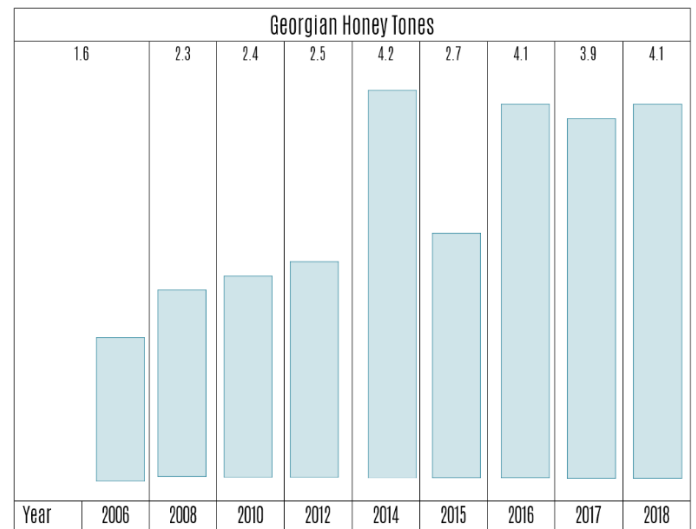


Figure 2. Honey production in Georgia (ths. tones).

Caucasian flora - Georgian flora is extremely diverse and rich. It is very interesting from the ecological point of view. Located between the

forests of northern Eurasia and the tropical deserts of Iraq and Iran, incorporating Europe's highest mountains and a subtropical coastline, it has a high level of biodiversity. Conservation International recently designated Georgia as one of its 25 global "biodiversity hotspots" because of the area's exceptional number of endemic species (those found nowhere else). Endemic species comprise about 9% of Georgia 's flora, a surprisingly high proportion for so small country [4].

There are about 5,000 species of vascular plants (of which 380 are endemic to Georgia and about 600 to the Caucasus), and about 8,400 - 10,000 cryptogamous or spore-bearing plants. High Caucasus is also rich in endemics; thick deciduous forest is spread on the lower to mid-altitude of the southwestern slopes and is described as 'temperate rainforest'.

There's a wide variety of plant communities, with examples of almost all the main habitat types found in Europe and some of those in Asia; many are highly valuable in terms of biodiversity, including sub-alpine coniferous forests, meadows, wetlands, peat bogs and lakes; coniferous and beech forests; oak woodlands; caves and mountain gorges; unique Colchic forests with evergreen undergrowth; Mediterranean and sub-Mediterranean communities; steppe grasslands; arid light woodlands; as well as riparian shrub and forest vegetation along rivers [3].

The Caucasus district lies in the north at 2,000m and higher, with a severe climate and annual precipitation over a meter. It harbours some of the most diverse and distinctive temperate coniferous and deciduous forests in Eurasia, ranging with

altitude from sub-alpine beech woods, dark coniferous forests and crook-stem woods to sub-alpine, alpine and subnival plant communities and, above these, bare nival landscapes.

Georgian honey is harvested in ecologically clean and non polluted areas and it will offer EU market good quality & different types of honey [9].

Georgian beekeeping share to EU based on honey export is low, however, it might be very significant in case of Queen bee export.

Modern beekeeping is mainly focused in smart technologies and its integration with hive for better management. This is a promising approach, which needs further development in order to help achieve much needed results. However, the problem is not only in technology. Beekeeping in EU faces different problems such as pollution, various infections and parasites like Varroa destructor and small hive beetle. In addition, Colony Collapse Disorder (CCD) poses a great danger for beekeeping recovery in many countries. These cause enormous problems to EU environment and economy, as bees are critically important [2]. It is estimated that pollinators, mainly honey bees, contribute at least 22 billion EUR each year to the European agriculture industry. They ensure pollination for over 80% of crops and wild plants in Europe. Honey bees also provide honey and other apiculture products such as pollen, wax for food processing, propolis in food technology, and royal jelly used as a dietary supplement and as an ingredient in food[6].

EU will greatly benefit from other beekeeping product imported from Georgia, namely queen bees, which will significantly increase the share of Georgia in overall EU economy.

Caucasian grey mountain honeybee (*Apis mellifera caucasia*) - Georgia has a long history of



beekeeping. So far, the oldest remains of honey have been found in Georgia. Archaeologists have found honey remains on the inner surface of clay vessels of an unearthed ancient tomb during Baku-Tbilisi-Ceyhan oil pipeline construction, dating back to some 5,500 years ago [8].

### Market characteristics

Caucasian bees are:

- The most gentle bees in the world
- Winder-hardy
- Productive
- Agile, with ability to fly in cool temperatures and even in light rain, that other races of bees will not even dare.
- Longest tongue (7,1mm-7,3mm), therefore can reach nectar that its competitors cannot.

Worldwide popularization

Famous American entomologist, researcher and beekeeping innovator Frank Benton (1852-1919) greatly supported the popularization and the import of Georgian honeybees to the Europe and United States. In modern times, 3 gold medal awards started a new era of popularization of Georgian grey honeybees. First Gold Medal was given to the Georgian honeybee in 1961, at the International Exhibition of Gardening in Erfurt (Germany), next time, the Georgian honeybee was awarded a Gold Medal at the jubilee celebration of the APIMONDIA 20th International Congress of Agriculture in Bucharest (Romania) in 1965, and the third Gold Medal was received at the jubilee celebration of the APIMONDIA 23th International Congress of Agriculture in Moscow in 1971 [10].

### Referring

According to Sunday Mirror, a newspaper published in UK: "GOLDEN BEE the grey mountain bee of the Soviet Union has been judged the best in the world and awarded a gold medal. The grey caucasian bee is distinguished for its industry and it collects honey, even when it is raining. Many foreign beemasters have requested for the Golden bee and as many as 200 000 have been sent to Europe, Asia and America this year." (Sunday Mirror June, 1969)

### International Awards Of Georgia Honey



**GOLD MEDAL**  
International Exhibition of Gardening  
1961, Erfurt, Germany



**GOLD MEDAL**  
APIMONDIA 20th International  
Congress of Agriculture  
1965, Bucharest, Romania



**GOLD MEDAL**  
APIMONDIA 23th International  
Congress of Agriculture  
1971, Moscow, USSR

*Picture 1. International Awards Of Georgia Honey*

According to Georgian beekeeping company GOLDBEE, there is an increased demand for Caucasian queen bees in recent years. To support US declining bee population, US entomologist Walter S. Sheppard (Washington State University) has started taking bee semen from Georgia [5].

## Conclusion

The grey Caucasus mountain honeybee (*Apis mellifera caucasia*), one of the world's three types of honeybees, has a legendary ability to produce large amounts of honey despite adverse conditions. They can fly in cold weather, even in light rain. For thousands of years this species were native to Georgia, Caucasus.

Georgian bee's abilities will greatly benefit pollination issues in EU. Thanks to its longest tongue (proboscis) it will pollinate more plants than any other bee. This will increase the quality and area of pollination in EU.

Many cities allowed urban beekeeping in recent years, Georgian bees are probably the best choice for urban beekeepers as they are the most gentle ones. The other important factor is that, thanks to

their longest proboscis, Georgian bees are able to collect nectar from wide variety of plants.

According to different statistics, women and youth rarely participate in modern beekeeping. Smart and gentle Georgian bees will make it easier for beginners to take up beekeeping. With all the mentioned characteristics, the Caucasian bees are probably the best bees for restoration of bee colonies worldwide and Georgian queen bees are believed to be one of the most promising export products.

Georgian government, the Ministry of Agriculture and beekeeping companies are ready to participate in the Programs to support the restoration of honeybee population in the EU, as well as to collaborate with research centers and universities. Georgia meets all the EU requirements and there are 10 active laboratories in the country, which perform all the basic analysis & certification - ALGP. The last step in the process is a legislation issue, which will allow the legal export of Georgian bees to the EU market.

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