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Criterion II: - Teaching Learning and Evaluation Key Indicator: 2.2 Metric:2.2.1

2.2.1 The institution assesses the learning levels of the students and organises special Programmes to cater to differential learning needs of the student

List of Student Publications in National and International Journal

S.No	Name of the Student	Department	Title of the paper	Name of the Journal	Page No
1	M. Arun vignesh	M.Sc Mathematics	Application of Hypersoft sets in Covid-19 Decision Making Model	International Journal of Research and Analytical Reviews (IJRAR)	11
2	M. Nathibrami	M.Sc Mathematics	On Hypersoft Semi- open Sets	Neutrosophic Sets and Systems,	18
3	K.T.Anand Kumar	M.Com International Business	A Study On Export Performance Of Photographic Or Cinematographic Goods In India	International Journal Of Management Technology And Engineering (IJMTE)	36
4	K.Kavinprasanth	M.Com International Business	A Study On Export Performance Of Ethanol In India	International Journal Of Management Technology And Engineering (IJMTE)	37
5	R.Aravind	M.Com International Business	Iron And Steel Export Performance In India	International Journal Of Management Technology And Engineering (IJMTE)	38
6	G.Tamilzharasan	M.Com International Business	A Study On Export Performance Of Man Made Filments In India	International Journal Of Management Technology And Engineering	39



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				(IJMTE)	
7	V. Karthick	M.Com International Business	A Study On Export Performance Of Wood And Articles In India	International Journal Of Management Technology And Engineering (IJMTE)	40
8	S. Satheeshkumar	M.Com International Business	Study on export performance of carpets and other textile floor coverings in India	International Journal Of Management Technology And Engineering (IJMTE)	41
9	M.Renu Priya	M.Com International Business	A study on export performance of coco in India	International Journal Of Management Technology And Engineering (IJMTE)	42
10	S. Rajeswari	M.Com International Business	A study on export performance of onion in India	International Journal Of Management Technology And Engineering (IJMTE))	43
11	R.Kamaleshwaran	M.Com International Business	Export performance of APEDA in India	International Journal Of Management Technology And Engineering (IJMTE)	44
12	K. Vignesh Kumar	M.Com International Business	A study on employee welfare measure with special reference to v- textiles, Pollachi	International Journal Of Management Technology And Engineering (IJMTE)	45
13	G.Ponkumar	M.Com International Business	A study on performance of foreign direct investment in India	International Journal Of Management Technology And Engineering (IJMTE)	46
14	B.Gowtham	M.Com International Business	A study on consumer behavior of milky mist milk with special reference to pollachi	International Journal Of Management Technology And Engineering	47 47



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7K.PrasanthM.Com International BusinessA study on export performance of fertilizers in IndiaInternational Journal Of Management Technology And Engineering (IJMTE)508S. RubatharanM.Com International BusinessM.Com International BusinessA study on export of live animals in IndiaInternational Journal Of Management Technology And Engineering (IJMTE)519S. Senthil KumarM.Com International BusinessA study on hr practices with special reference to royal classic mills private limited, CoimbatoreInternational Journal Of 	16	T.Meganadhan	M.Com International Business	A study on export performance of paper board in India	International Journal Of Management Technology And Engineering (IJMTE)	49
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0M.Shanthini.M.Com International BusinessA study on export performance of silkInternational Journal Of Management Technology And Engineering (IJMTE)531M.TamizharasanM.Com International BusinessA study on export performance of silkInternational Journal Of Management Journal Of Management Journal Of Management Journal Of Management Journal Of Management 	19	S.Senthil Kumar	M.Com International Business	A study on hr practices with special reference to royal classic mills private limited, Coimbatore	International Journal Of Management Technology And Engineering (UMTE)	52
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M.Com International Businessmanaging employee performance appraisal inInternational Journal Of Computational Research And	21	M.Tamizharasan	M.Com International Business	A study on export performance of copper in India	International Journal Of Management Technology And Engineering (IJMTE)	54
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20	M Dinesh	Business	export performance	Computational	63
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37	M. Dinesh	M.Com International Business	Top 15 commodities export performance in India	International Journal Of Scientific Research And Modern Education (IJSRME)	70
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35	K. Ponraj	M.Com International Business	Agri and allied products export performance in India	International Journal Of Scientific Research And Modern Education (IJSRME)	68
34	A. Mohammed Imran	M.Com International Business	Fresh fruits and vegetables products export performance in India	International Journal Of Scientific Research And Modern Education (IJSRME)	67
33	J. Francelin Rose Mystica	M.Com International Business	Cosmetics export performance in India	International Journal Of Computational Research And Development (IJCRD)	66
32	K. Ponraj	M.Com International Business	Agri And Allied Products Export Performance In India	International Journal Of Computational Research And Development (IJCRD)	65
31	P. Sathrukana	M.Com International Business	Glass and glass ware export performance in India	International Journal Of Computational Research And Development (IJCRD)	64

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44	Ajay Kumar	M.Com International Business	Public health centers role for the development of rural Communities – a decisive approach	Madhya Bharti - Humanities And Social Sciences	77
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56	Meenakshi Gayathiri	International	Stress Towards Self-	humanities and	83
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5/	S. Sanunya	Business	School Students On	numanities and	84
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58	M. Rajasabari	Business	Coimbatore and	Place Names	86
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62	S.Nagalakshmi	B.Com E Commerce	Tiruppur District Rural Women Empowerment through	Rural Women Empowerment	91
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62 63	S.Nagalakshmi Gokulapriya.T	B.Com E Commerce M.Sc Computer Science	Tiruppur District Rural Women Empowerment through Entrepreneurship An improved pair based Authentication for effective security trending towards social media	Rural Women Empowerment through Entrepreneurship International Journal of creative research thoughts	91 92
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62 63	S.Nagalakshmi Gokulapriya.T Vishnu Dharsana V	B.Com E Commerce M.Sc Computer Science M.Sc Computer Science	Tiruppur District Rural Women Empowerment through Entrepreneurship An improved pair based Authentication for effective security trending towards social media A study of Robatic Vacuum Cleaner	Rural Women Empowerment through Entrepreneurship International Journal of creative research thoughts Journal of the Maharaja Savaiirao	91 92 93
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62 63 64	S.Nagalakshmi Gokulapriya.T Vishnu Dharsana.V	B.Com E Commerce M.Sc Computer Science M.Sc Computer Science	Concern Ebeated inTiruppur DistrictRural WomenEmpowermentthroughEntrepreneurshipAn improved pairbased Authenticationfor effective securitytrending towardssocial mediaA study of RobaticVacuum Cleanerusing Raspberry PiUipath Analysis in	Rural Women Empowerment through Entrepreneurship International Journal of creative research thoughts Journal of the Maharaja Sayajirao University of Baroda International Journal of creative	91 92 93
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	а С	International	Customer	International	
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List of Research papers in National and

International Journals 2022-23

S. No.	Name of the Student	Title of the paper	Name of the	Month &
			Journal	year
1	M. Arun Vignesh	Application of Hypersoft	International	Sep 2022
	(20-PM-01)	sets in Covid-19 Decision	Journal of	
		Making Model	Research and	-
			Analytical	
			Reviews	
2	M. Nathibrami	On Hypersoft Semi-open	Neutrosophic sets	Aug 2023
	(20-PM-23)	sets	and Systems	

V. Head of the Department

Dr. V. Inthumathi, Ph.D., Associate Professor & Head Department of Mathematics N.G.M College, Pollachi - 642 001.

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Application of Hypersoft sets in Covid-19 Decision Making Model

¹V. Inthumathi, ²M. Amsaveni, ³M. Arun vignesh

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Abstract : The idea of hypersoft sets is a newly emerging technique in dealing with problems in the real world. In this paper we propose two algorithms based on the hypersoft sets to obtain optimal decisions in decision making. The efficiency of the algorithms proposed is demonstrated by applying them to the current covid-19 scenario. This concept is applied in the case of finding infected patients and purchasing hand sanitizers during covid-19 pandemic spread.

IndexTerms - Soft set, Hypersoft set, Decision making.

1. INTRODUCTION

The process of selecting the best from the list of alternatives available for selection is called decision making. Sometimes predefined parameters are not sufficient to take accurate decisions in solving general or real time problems, hence there may be provisions to add more parameters to the existing set that may comes either as a new or generated from processing of existing ones.

In 1999, Molodtsov[5] developed the concept of a soft set to handle difficult problems in Economics, Engineering and in Environment, where no mathematical methods could effectively deal with the many types of uncertainty.

Maji et al.[2,3,4] developed various operations for the soft set theory and conducted a more detailed theoretical analysis of soft set theory. In 2005 Chen D[1] proposed a reasonable definition of parameterized reduction of soft sets and improved the application of a soft set in a decision making problem. In 2016, Wei et al.[10] developed a new approach for selecting a product using fuzzy decision making.

In 2018, Smarandache[8] expanded the notion of a soft set to a hypersoft set by substituting the function with a multi-argument function described in the cartesian product with a different set of parameters. This concept is more adaptable than the soft set and more useful when it comes to decision making. Recently Nivetha martin et al.[7] have applied extended plithogenic hypersoft sets with dual dominant attributes in Covid-19 decision making.

The proposed decision making model is validated with the data of the present COVID -19 pandemic situations. The objective of the model is to rank the patients being identified as symptotic and affected using Decision making system.

Based on the works highlighted in the introduction this paper is organized as follows : Chapter 2 contains basic definitions related to hypersoft sets. In Chapter 3 we have applied hyper soft sets in decision making to identify the Covid-19 patients. In Chapter 4 we have applied hyper soft sets in decision making to select the best Hand sanitizer.

2. PRELIMINARIES

2.1 Soft Set [5]:

Let U be an initial universal set and E be the set of parameters. Let P(U) denote the power set of U and let $A \subseteq E$. A pair (F,A) is called the soft set over U, where the mapping given by $F : A \rightarrow P(U)$. The collection of soft sets (F, A) over a universe U and the parameter set A is a family of soft sets denoted by $SS(U)_A$

Example [9]:

A soft set (F, E) describes the attractiveness of the bikes in which Mr. X is going to buy $U = \{b_1, b_2, b_3, b_4\}$ is the set of bikes under consideration. E is the set of parameters.

 $E = (e_1 = \text{stylish}, e_2 = \text{heavy duty}, e_3 = \text{light}, e_4 = \text{steel body}, e_5 = \text{cheap}, e_6 = \text{good mileage}, e_7 = \text{easily started}, e_8 = \text{long driven}, e_9 = \text{costly}, e_{10} = \text{fibre body}.$

The soft sets can be defined as

 $(F, e_1) = \{b_1, b_3, b_4\}$

 $(F, e_2) = \{ b_3, b_4 \}$

 $(F, e_3) = \{b_1\}$

 $(F, e_4) = \{ b_3 \}$

 $(F, e_5) = \{b_4\}$ $(F, e_6) = \{b_1, b_2, b_4\}$ $(F, e_7) = \{b_1, b_2, b_3, b_4\}$ $(F, e_8) = \{b_2, b_3, b_4\}$ $(F, e_9) = \{b_1\}$

2.2 Hyper Soft Sets [6]:

Let U be a universe of discourse, P(U) the power set of U and $E_1, E_2, ..., E_n$ the pairwise disjoint sets of parameters, Let A_i be the nonempty subset of E_i for each i = 1,2,..., n. The Hypersoft set can be identified by the pair (F, $A_1 \times A_2 \times ... \times A_n$) where,

 $\mathbf{F}: \mathbf{A}_1 \times \mathbf{A}_2 \times \ldots \times \mathbf{A}_n \longrightarrow P(U)$

Example [9]:

 $A_1 \wedge A_2 \wedge \dots \wedge A_n \rightarrow I(U)$

Let $U = \{x_1, x_2, x_3, x_4\}$ be the collection of citizens from different countries and a set $M = \{x_1, x_3\} \in U$. the attributes be: $a_1 = \text{size}, a_2 = \text{colour}, a_3 = \text{gender}, a_4 = \text{nationality}$. Their attributes values respectively: size = $A_1 = \{\text{small, medium, tall}\}$, colour = $A_2 = \{\text{white, yellow, red, black}\}$, gender = $A_3 = \{\text{male, female}\}$, nationality = $A_4 = \{\text{American, French, Spanish, Italian, Chinese}\}$. Let the function be F: $A_1 \times A_2 \times A_3 \times A_4 \rightarrow P(U)$. The hypersoft set can be defined as $F(\{\text{tall, white, female, Italian}\}) = \{x_1, x_3\}$.

3. DECISION MAKING MODEL : FINDING AN INFECTED PATIENT

3.1 ANALYSIS

Coronavirus (COVID-19), the new name for the disease being caused by the recent Coronavirus, SARS-CoV-2 is all over the news. It is getting difficult to find the infected patient among the set of individuals. Although there are methods available to find the infected person by soft set decision making model, the results are more accurate in Hyper soft decision making model. Since the parameters are used in detail to find the infected patient.

3.2 DATA SET USED

Let $U = \{P_1, P_2, P_3, P_4, P_5, P_6, P_7\}$ be the set of patients

Let the attributes be $e_1 =$ Fever, $e_2 =$ Cold, $e_3 =$ Breathing. Their attribute values are

 $A_1 = \{3-5 \text{ days}, 1-2 \text{ days}, \text{ no fever}\} = \{a_1, a_2, a_3\}$

 $A_2 = \{5-7 \text{ days}, 3-4 \text{ days}, \text{ no cold}\} = \{a_4, a_5, a_6\}$

 $A_3 = \{$ Shortness of breath, Normal $\} = \{a_7, a_8\}$

The Hyper soft set can be written as

 $\{(a_3, a_6, a_7)(P_3, P_4, P_5, P_6, P_7)\}\}$

we can represent this hypersoft set (F, $A_1 \times A_2 \times A_3$) in a tabular form as shown below. This style of representation will be useful for storing a hypersoft set in a computer memory. If $P_i \in F(a)$ then $P_{ij} = 1$ otherwise $P_{ij} = 0$ where P_{ij} be the entries in table and $a = (a_i, a_i, a_k)$

U				
(a_i,a_j,a_k)	(a_1, a_4, a_8)	(a_2, a_5, a_8)	(a_1, a_5, a_8)	(a_3, a_6, a_7)
P ₁	1	0	0	0
P ₂	1	0	1	0
P ₃	0	1	1	1
<i>P</i> ₄	0	1	0	1
<i>P</i> ₅	1	1	1	1
P ₆	0	1	1	1
P ₇	0	0	0	1

Table-1

TABLE OF

Let

3.3 REDUCT HYPERSOFT SET

Consider the hypersoft set $(F, E_1 \times E_2 \times E_3)$. Clearly for any $A_1 \times A_2 \times A_3 \subseteq E_1 \times E_2 \times E_3$, $(F, A_1 \times A_2 \times A_3)$ is a hypersoft subset of $(F, E_1 \times E_2 \times E_3)$. We will now define a reduct hypersoft set of the hypersoft set $(F, A_1 \times A_2 \times A_3)$.

Consider the tabular representation of the hypersoft set $(F, A_1 \times A_2 \times A_3)$. If $B_1 \times B_2 \times B_3$ is a reduction of $A_1 \times A_2 \times A_3$ then the hypersoft set $(F, B_1 \times B_2 \times B_3)$ is called the reduct hypersoft set of the hypersoft set $(F, A_1 \times A_2 \times A_3)$. Intuitively a reduct hypersoft set $(F, B_1 \times B_2 \times B_3)$ of the hypersoft set $(F, A_1 \times A_2 \times A_3)$ is essential part which suffices to describe all basic approximate descriptions of the hypersoft set $(F, A_1 \times A_2 \times A_3)$.

3.4 CHOICE VALUE OF THE PATIENT P_i

The Choice value of the patient $P_i \in U_i$ is given by

$$C_i = \sum_{i,j=1}^n P_i$$

where, P_{ij} are the entries in the table of the reduct hypersoft set.

3.5 ALGORITHM FOR FINDING INFECTED PATIENT

The following algorithm may be followed by the Doctor to find the Patients according to their symptoms.

- Input the hypersoft set $(F, E_1 \times E_2 \times E_3)$
- Input the set $A_1 \times A_2 \times A_3$ of choice parameters of the Doctor
- Find all reduct hypersoft sets of $(F, A_1 \times A_2 \times A_3)$
- Choose one reduct hypersoft set say $(F, B_1 \times B_2 \times B_3)$ of $(F, A_1 \times A_2 \times A_3)$
- Find k, for which $C_k = \max P_i$

Then C_k is the optimal choice object. If k has more than one value, then any one of them could be chosen by the Doctor by using the options. Now we use the above algorithm to solve our original problem. Clearly from table we see that $B_1 \times B_2 \times B_3 = \{(a_1, a_4, a_8), (a_2, a_5, a_8), (a_1, a_5, a_8)\}$ is the reduct of $A_1 \times A_2 \times A_3 = \{(a_1, a_4, a_8), (a_2, a_5, a_8), (a_1, a_5, a_8)\}$ is the reduct of $A_1 \times A_2 \times A_3 = \{(a_1, a_4, a_8), (a_2, a_5, a_8), (a_3, a_6, a_7)\}$

In corresponding to the choice values the reduct hyper soft set can be represented as in Table-2

U (a_i, a_j, a_k)	(a_1, a_4, a_8)	(a_2, a_5, a_8)	(a_1, a_5, a_8)	Choice value $C_i = \sum P_{ij}$
<i>P</i> ₁	1	0	0	1
<i>P</i> ₂	1	0	1	2
P ₃	0	1	1	2
P ₄	0	1	0	1
<i>P</i> ₅	1	1	1	3
P ₆	0	1	1	2
P ₇	0	0	0	0

Table-2

Here max $C_i = P_5$

Decision : Doctor finds P_5 is infective

The doctor likes to impose weights on his choice parameters, that is corresponding to each elements in A_1 , A_2 , A_3 there is a weight $w_i \in [0,1]$.

3.6 WEIGHTED TABLE OF HYPERSOFT SET

We define the weighted table of the reduct hypersoft set $(F, B_1 \times B_2 \times B_3)$ will have entries $d_{ij} = P_{ij} \times W_j$ instead of 0 and 1 only, where P_{ij} are entries in the table of the reduct hypersoft set of $(F, B_1 \times B_2 \times B_3)$

3.7 WEIGHTED CHOICE VALUE OF THE PATIENT

The weighted choice value of the patient $P_i \in U$ is Wc_i given by

$$Wc_i = \sum d_{ij}$$
 where $d_{ij} = P_{ij} \times W_j$

Imposing weights on his choice parameters, The doctor could use the following revised algorithm for arriving at his final decision.

3.8 REVISED ALGORITHM FOR FINDING INFECTED PATIENTS

The following revised algorithm for finding the infected patient is

- Input the Hyper soft set $(F, E_1 \times E_2 \times E_3)$
- Input the set $A_1 \times A_2 \times A_3$ of the choice parameters of the Doctor which is subset of $E_1 \times E_2 \times E_3$
- Find all the reduct hyper soft sets of $(F, A_1 \times A_2 \times A_3)$
- Choose one reduced hypersoft set say $(F, B_1 \times B_2 \times B_3)$ of $(F, A_1 \times A_2 \times A_3)$
- Find weighted table of hypersoft set $(F, B_1 \times B_2 \times B_3)$ according to the weights decided by the doctor
- Find k, for which $Wc_k = \max Wc_i$

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www.ijrar.org (E-ISSN 2348-1269, P- ISSN 2349-5138)

Then P_k is the optimal choice object. If k has more than one value, then any one of them could be chosen by the doctor using his option. Let us solve now the original problem using the weighted algorithm. Suppose that the doctor assigns the following weights for the parameters of A_1 , A_2 and A_3 as follows.

For the parameter "3-5 days" put $w_1 = 0.2$ For the parameter "1-2 days" put $w_2 = 0.3$ For the parameter "no fever" put $w_3 = 0.0$

- For the parameter "5-7 days" put $w_4 = 0.7$
- For the parameter "3-4 days" put $w_5 = 0.1$
- For the parameter "no cold" put $w_6 = 0.4$
- For the parameter "shortness of breath" put $w_7 = 0.6$
- For the parameter "normal" put $w_8 = 0.1$

Using these weights the reduct hypersoft set can be tabulated as in Table-3

Table-3

U W	$W_1 = w_1 + w_4 + w_8$ $W_1 = 1.3$	$W_2 = w_2 + w_5 + w_8$ $W_2 = 0.5$	$W_3 = w_1 + w_5 + w_8$ $W_3 = 0.4$	Weighted Choice value <i>Wc_i</i>
P ₁	1.3	0	0	1.3
<i>P</i> ₂	1.3	0	0.4	1.7
<i>P</i> ₃	0	0.5	0.4	0.9
<i>P</i> ₄	0	0.5	0	0.5
P ₅	1.3	0.5	0.4	2.2
P ₆	0	0.5	0.4	0.9
P ₇	0	0	0	0

From Table, it is clear that the Doctor finds that P_5 is infected according to his choice parameters in $A_1 \times A_2 \times A_3$.

4. DECISION MAKING MODEL : FINDING THE BEST SANITIZER

4.1 ANALYSIS

A lot of information is being presented about how help to prevent Coronavirus (COVID-19) from affecting you and your family. Perhaps the most important thing to know is that medical experts agree on this: One of the best ways to stay healthy is to wash your hands with soap and water. But if those aren't available, hand sanitizer may help rid your hands of unwanted germs. Now the problem for any individual or for the government of any state is which brand they need to purchase. So in this case we can apply hypersoft sets to the present problem to make correct decision.

4.2 DATA SET USED

Let $U = \{H_1, H_2, H_3, H_4, H_5, H_6, H_7\}$ be the set of Hand sanitizers. Let the attributes be $a_1 =$ Alcohol content, $a_2 =$ Flavour, $a_3 =$ Cost.

Their attribute values are

 $A_1 = \{ 71 - 75 \%, 76 - 80 \%, 81 - 90 \% \} = \{e_1, e_2, e_3\}$

 $A_2 = \{$ Aloe vera, Neem, Citrus $\} = \{e_4, e_5, e_6\}$

 $A_3 = \{ \text{ Cheap, Costly} \} = \{ e_7, e_8 \}$

The Hyper soft set can be written as

 $\{F, A_1 \times A_2 \times A_3\} = \{\{(e_2, e_4, e_7)(H_1, H_2, H_4, H_5)\}\{(e_2, e_5, e_8)(H_2, H_3, H_4, H_6)\}$

 $\{(e_1, e_5, e_8)(H_1, H_2, H_3, H_7)\{(e_3, e_6, e_7)(H_1, H_2, H_4, H_6, H_7)\}\}$

we can represent this hypersoft set $(F, A_1 \times A_2 \times A_3)$ in a tabular form as shown below. This style of representation will be useful for storing a hypersoft set in a computer memory. If $P_i \in F(a)$ then $H_{ij} = 1$ otherwise $H_{ij} = 0$ where H_{ij} be the entries in Table-4 and $a = (e_i, e_j, e_k)$ Table-4

U				
(e_i, e_j, e_k)	(e_2, e_4, e_7)	$(\boldsymbol{e_2}, \boldsymbol{e_5}, \boldsymbol{e_8})$	(e_1, e_5, e_8)	$(\boldsymbol{e_3}, \boldsymbol{e_6}, \boldsymbol{e_7})$
H ₁	1	0	1	1
H ₂	1	1	1	1
H ₃	0	1	1	0
H ₄	1	1	0	1
H ₅	1	0	0	0
H ₆	0	1	0	1
H ₇	0	0	0	1

4.3 REDUCT TABLE OF HYPERSOFT SET

Consider the hypersoft set $(F, E_1 \times E_2 \times E_3)$. Clearly for any $A_1 \times A_2 \times A_3 \subseteq E_1 \times E_2 \times E_3$, $(F, A_1 \times A_2 \times A_3)$ is a hypersoft subset of $(F, E_1 \times E_2 \times E_3)$. We will now define a reduct hypersoft set of the hypersoft set $(F, A_1 \times A_2 \times A_3)$.

Consider the tabular representation of the hypersoft set $(F, A_1 \times A_2 \times A_3)$. If $B_1 \times B_2 \times B_3$ is a reduction of $A_1 \times A_2 \times A_3$ then the hypersoft set $(F, B_1 \times B_2 \times B_3)$ is called the reduct hypersoft set of the hypersoft set $(F, A_1 \times A_2 \times A_3)$. Intuitively a reduct hypersoft set $(F, B_1 \times B_2 \times B_3)$ of the hypersoft set $(F, A_1 \times A_2 \times A_3)$ is essential part which suffices to describe all basic approximate descriptions of the hypersoft set $(F, A_1 \times A_2 \times A_3)$.

4.4 CHOICE VALUE OF THE SANITIZER H_i

The Choice value of a Sanitizer $H_i \in U_i$ is given by

$$C_i = \sum_{i,j=1}^n H_{ij}$$

where, H_{ij} are the entries in the table of the reduct hypersoft set.

4.5 ALGORITHM FOR FINDING A BEST SANITIZER

The following algorithm may be followed by the Customer to find the best Sanitizer from the different brands.

- Input the hypersoft set $(F, E_1 \times E_2 \times E_3)$
- Input the set $A_1 \times A_2 \times A_3$ of choice parameters of the Customer
- Find all reduct hypersoft sets of $(F, A_1 \times A_2 \times A_3)$
- Choose one reduct hypersoft set say $(F, B_1 \times B_2 \times B_3)$ of $(F, A_1 \times A_2 \times A_3)$
- Find k, for which $C_k = \max H_i$

Then C_k is the optimal choice object. If k has more than one value, then any one of them could be chosen by the customer by using the options. Now we use the above algorithm to solve our original problem. Clearly from table we see that $B_1 \times B_2 \times B_3 =$

 $\{(e_2, e_4, e_7), (e_2, e_5, e_8), (e_1, e_5, e_8)\} \text{ is the reduct of } A_1 \times A_2 \times A_3 = \{(e_2, e_4, e_7), (e_2, e_5, e_8), (e_1, e_5, e_8), (e_3, e_6, e_7)\}.$

In corresponding to the choice values the reduct hyper soft set can be represented as in Table-5

U (e_i, e_j, e_k)	(e_2, e_4, e_7)	(e_2, e_5, e_8)	(e_1, e_5, e_8)	Choice value $C_i = \sum H_{ij}$
H ₁	1	0	1	2
H ₂	1	1	1	3
H ₃	0	1	1	2
H ₄	1	1	0	2
H ₅	1	0	0	1
H ₆	0	1	0	1
<i>H</i> ₇	0	0	0	0

Table-5

Here max $C_i = H_2$

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Decision : The customer finds H_2 is preferable

The Customer likes to impose weights on his choice parameters, that is corresponding to each elements in A_1, A_2, A_3 there is a weight $w_i \in [0,1].$

4.6 WEIGHTED TABLE OF HYPERSOFT SET

We define the weighted table of the reduct hypersoft set $(F, B_1 \times B_2 \times B_3)$ will have entries $d_{ij} = H_{ij} \times W_j$ instead of 0 and 1 only, where H_{ii} are entries in the table of the reduct hypersoft set of $(F, B_1 \times B_2 \times B_3)$

4.7 WEIGHTED CHOICE VALUE OF THE SANITIZER

The weighted choice value of the sanitizer $H_i \in U$ is Wc_i given by

$$Wc_i = \sum d_{ii}$$
 where $d_{ii} = H_{ii} \times W_i$

Imposing weights on his choice parameters, the customer could use the following revised algorithm for arriving at his final decision.

4.8 REVISED ALGORITHM FOR FINDING BEST SANITIZER

The following revised algorithm for selecting the best sanitizer is

- Input the Hyper soft set $(F, E_1 \times E_2 \times E_3)$
- Input the set $A_1 \times A_2 \times A_3$ of the choice parameters of the customer which is subset of $E_1 \times E_2 \times E_3$
- Find all the reduct hyper soft sets of $(F, A_1 \times A_2 \times A_3)$
- Choose one reduced hypersoft set say $(F, B_1 \times B_2 \times B_3)$ of $(F, A_1 \times A_2 \times A_3)$
- Find weighted table of the hypersoft set $(F, B_1 \times B_2 \times B_3)$ according to the weights decided by the customer
- Find k, for which $Wc_k = \max Wc_i$

Then P_k is the optimal choice object. If k has more than one value, then any one of them could be chosen by the customer using his option. Let us solve now the original problem using the weighted algorithm. Suppose that the Customer assigns the following weights for the parameters of A_1 , A_2 and A_3 as follows.

For the parameter "71 - 75 %" put $w_1 = 0.2$ For the parameter "76 - 80 %" put $w_2 = 0.3$

- For the parameter "81 90 %" put $w_3 = 0.5$
- For the parameter "Aloe vera" put $w_4 = 0.7$
- For the parameter "Neem" put $w_5 = 0.1$ For the parameter "Citrus" put $w_6 = 0.4$
- For the parameter "Cheap" put $w_7 = 0.6$
- For the parameter "Costly" put $w_8 = 0.1$

Using these weights the reduct hypersoft set can be tabulated as in Table-6

U W	$W_1 = w_2 + w_4 + w_7$ $W_1 = 1.3$	$W_2 = w_2 + w_5 + w_8$ $W_2 = 0.5$	$W_3 = w_1 + w_5 + w_8$ $W_3 = 0.4$	Weighted Choice value <i>Wc_i</i>
H_1	1.3	0	0.4	1.7
H_2	1.3	0.5	0.4	2.2
H_3	0	0.5	0.4	0.9
H_4	1.3	0.5	0	1.8
H_5	1.3	0	0	1.3
H ₆	0	0.5	0	0.5
H ₇	0	0	0	0

Table-6

From Table, it is clear that the Customer finds that H_2 is the best Sanitizer according to his choice parameters in $A_1 \times A_2 \times A_3$.

5. CONCLUSION

The process of selecting the best from the list of alternatives available for selection is called decision making. Decision either is a day-to-day decision or a sensitive one which has greater impact to the organization or a society. The decision making method requires a systematic procedure to define parameters which are necessary to take final decision as well as focused on how to bring accuracy for collecting data for different parameters. We have summarized the basic concepts of Hyper soft set theory and enumerate

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www.ijrar.org (E-ISSN 2348-1269, P- ISSN 2349-5138)

some of its various applications in different direction to date. Hyper soft set is an important instrument for dealing with uncertainty problems. We have applied the hyper soft set theory in the case of persons who are affected with Covid-19 infection and in finding the best hand sanitizer.

REFERENCES

- [1] Chen, D. Tsang, E, C, C. Yeung, D, S. and Wang, X. 2005. The parameterization reduction of soft sets and its applications, Computers and mathematics with applications, Volume 49.
- [2] Maji, P, K. Biswas, R. and Roy, A, R. An application of soft sets in a decision making problem, Computers and mathematics with applications, Volume 45.
- [3] Maji, P, K. Biswas, R. and Roy, A, R. 2001. Fuzzy soft sets, Journal of fuzzy mathematics, Volume 3, pp 589 602.
- [4] Maji, P, K. Biswas, R. and Roy, R. 2003. Soft set theory, Computers and mathematics with applications, Volume 45, pp 555 562.
- [5] Molodstov, D, A. 1999. Soft set theory first result, Computers and mathematics with applications, Volume 37, pp 19 31.
- [6] Mujahid Abbas. Ghulam Murtaza. and Florentin Smarandache. 2020. Basic operations on hypersoft sets and hypersoft point, Neutrosophic sets and Systems, Volume 35.
- [7] Nivetha martin. Florentin Smarandache. and Said broumi. 2021. Covid-19 Decision making model using extended plithogenic hypersoft sets with dual dominant attributes, International journal of neutrosophic science, volume 13, pp 75 - 86.
- [8] Smarandache, F. 2018. Extension of soft Set to hypersoft Set, and then to plithogenic hypersoft set, Neutrosophic sets and systems, Volume 22, pp 168 - 170.
- [9] Subrahmanyeswara rao, B. and Siva kumar, H. 2020. Soft set application in decision making problem: Covid 19 pandemic, Alochana chakra journal, Volume 9.
- [10] Wei, C. Andria. Xiao, A. Wei, H, W. and Lai, C, S. 2016. A new fuzzy decision-making approach for selecting new product development project, Concurrent engineering, volume 24, No.2, pp 240 - 250.

Neutrosophic Sets and Systems

Volume 57

Article 19

8-20-2023

On Hypersoft Semi-open Sets

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Inthumathi, V.; M. Amsaveni; and M. Nathibrami. "On Hypersoft Semi-open Sets." *Neutrosophic Sets and Systems* 57, 1 (2023). https://digitalrepository.unm.edu/nss_journal/vol57/iss1/19

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On Hypersoft Semi-open Sets

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Abstract. A generalisation of soft sets called a hypersoft set incorporates a multiargument function. The major goal of this study is to provide appropriate examples for the introduction of hypersoft semi-open sets (SOS) and hypersoft semi-closed sets (SCS). Additionally, we investigate the definition and characteristics of hypersoft semi-open sets in hypersoft topological spaces (TS). The hypersoft semi interior and hypersoft semi closure of the hypersoft set are defined at the end.

Keywords: hypersoft set; hypersoft topology; hypesoft semi-open and closed set; hypersoft semi-interior; hypersoft semi-closure.

1. Introduction

Molodstov 14 established the concept of a soft set in 1999 to handle difficult problems in finance, technical education, and ecological science when no mathematical instruments could effectively address the many types of uncertainty. 13 constructed a number of soft set theory operators and carried out a more thorough conceptual analysis.

Numerous applications of topology, a subfield of mathematics, may be found in the computer and physical sciences. Soft topology is determined on soft sets in two different ways, one by Shabir [20] and the other by Cagman et al. [5].

Soft SOS and soft SCS were first presented in soft TS by Sasikala, V., E. and Sivaraj, D., 19. Soft semi connected and soft locally semi connected characteristics in soft TS were

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established by Krishnaveni, J., and Sekar, C., [12].

In 2018, Florentin Smarandache 22 extended the concept of a soft set to a hypersoft set and the hypersoft topology was introduced by Musa and Assad, 15.

The hypersoft sets have been utilised in the Covid-19 Decision Making Model by Inthumathi et al., who cited **9**. Hypersoft subspace topology, hypersoft basis, hypersoft limit point, and hypersoft Hausdorff space were also introduced by Inthumathi et al. in **10**. Neutrosophic hypersoft TS and Neutrosophic Semi-open hypersoft sets were produced by Ajay et al. **2** with an illustration to the MAGDM in the Covid-19 Scenario.

When there exist inconclusive data, uncertain functions, or ambiguous sets, Florentin Smarandache 6 recently invented the IndetermHypersoft set as an enhancement of the hypersoft set. He 7 as the company that created the TreeSoft set as an addition to the Multisoft set. It can be seen that the level 2 TreeSoft set resembles the hypersoft set.

The framework of the manuscript is as follows. The preliminary information relevant to this article is provided in section 2. Hypersoft SOS and hypersoft SCS are introduced in section 3 of the paper. We present the idea of hypersoft semi-interior and hypersoft semi-closure in section 4 and demonstrate some of its features.

2. Preliminaries

The preceding definitions are crucial to understanding the content of this manuscript.

Definition 2.1. 14 "Let U be an initial universe and E be a set of parameters. Let P(U) denote the power set of U. The pair (F, E) or simply F_E , is called a soft set over U, where F is a mapping given by $F: E \rightarrow P(U)$ ".

Definition 2.2. 22 "Let U be a universe of discourse, P(U) the power set of U and E_1, E_2, \dots, E_n the pairwise disjoint sets of parameters. Let A_i be the nonempty subset of E_i for each i=1,2,...,n. A hypersoft set can be identified by the pair $(\Omega, A_1 * A_2 * \cdots * A_n)$, where $\Omega : A_1 * A_2 * \cdots * A_n \to P(U)$. For sake of simplicity, we write the symbols \mathscr{T} for $E_1 * E_2 * \cdots * E_n$, P for $A_1 * A_2 * \cdots * A_n$ ".

Definition 2.3. [1] "Let (Ω, \mathscr{Q}) and $(\mathscr{G}, \mathfrak{R})$ be two hypersoft sets over U. Then union of (Ω, \mathscr{Q}) and $(\mathscr{G}, \mathfrak{R})$ is denoted by $(\mathscr{H}, \mathscr{S}) = (\Omega, \mathscr{Q}) \cup (\mathscr{G}, \mathfrak{R})$ with $\mathscr{S} = D_1 * D_2 * \cdots * D_n$, where $D_i = Q_i \cup R_i$ for i = 1, 2, ..., n, and \mathscr{H} is defined by

$$\mathscr{H}(\alpha) = \begin{cases} \Omega(\alpha), & if\alpha \in \mathscr{Q} - \mathfrak{R} \\ \mathscr{G}(\alpha), & if\alpha \in \mathfrak{R} - \mathscr{Q} \\ \Omega(\alpha) \cup \mathscr{G}(\alpha), & if\alpha \in \mathscr{Q} \cap \mathfrak{R} \\ 0, & else, \end{cases}$$

where $\alpha = (d_1, d_2, ..., d_n) \in \mathscr{S}^n$.

Definition 2.4. [1] "Let (Ω, \mathcal{Q}) and $(\mathcal{G}, \mathfrak{R})$ be two hypersoft sets over U. Then intersection of (Ω, \mathcal{Q}) and $(\mathcal{G}, \mathfrak{R})$ is denoted by $(\mathcal{H}, \mathscr{S}) = (\Omega, \mathcal{Q}) \cap (\mathcal{G}, \mathfrak{R})$ with $\mathscr{S}=D_1 * D_2 * \cdots * D_n$, is such that $D_i=Q_i \cap R_i$ for i=1,2,...,n, and \mathscr{H} is defined as $\mathscr{H}(\alpha) = \Omega(\alpha) \cap \mathscr{G}(\alpha)$, where $\alpha = (d_1, d_2, ..., d_n) \in \mathscr{S}$. If D_i is an empty for some i, then $(\Omega, \mathcal{Q}) \cap (\mathscr{G}, \mathfrak{R})$ is defined to be a null hypersoft set".

Definition 2.5. 15 "Let τ be a collection of hypersoft sets over U, then τ is said to be a hypersoft topology over U if

- (1) (\emptyset, P) and (Ω, P) belongs to τ ,
- (2) The intersection of any two hypersoft sets in τ belongs to τ ,
- (3) The union of any number of a hypersoft sets in τ belongs to τ . Then $((\Omega, \mathsf{P}), \tau)$ is called a hypersoft TS over U".

Proposition 2.6. [15] "Let $((\Omega, \mathsf{P}), \tau)$ be a hypersoft space over U. Then

- (1) (\emptyset, P) and (Ω, P) are hypersoft closed sets over U,
- (2) The union of any two hypersoft closed sets is a hypersoft closed set over U,
- (3) The intersection of any number of hypersoft closed sets is a hypersoft closed set over U".

Definition 2.7. [15] "Let $((\Omega, \mathsf{P}), \tau)$ be a hypersoft TS and let (Ω, \mathcal{Q}) be a hypersoft set then

- (1) The hypersoft interior of (Ω, \mathscr{Q}) is the hypersoft set $h\text{-}int(\Omega, \mathscr{Q}) = \bigcup \{ (\Omega, \mathfrak{R}) : (\Omega, \mathfrak{R}) \text{ is hypersoft open and } (\Omega, \mathfrak{R}) \subseteq (\Omega, \mathscr{Q}) \}.$
- (2) The hypersoft closure of (Ω, \mathscr{Q}) is the hypersoft set $h\text{-}cl(\Omega, \mathscr{Q}) = \bigcap \{ (\Omega, \mathfrak{R}) : (\Omega, \mathfrak{R}) \text{ is hypersoft closed and } (\Omega, \mathscr{Q}) \subseteq (\Omega, \mathfrak{R}) \}^{"}.$

Proposition 2.8. [15] "Let $((\Omega, \mathsf{P}), \tau)$ be a hypersoft TS and let (Ω, \mathscr{Q}) be a hypersoft set then

- (1) $h cl(\Omega, \mathcal{Q})$ is the smallest hypersoft closed set containing (Ω, \mathcal{Q}) .
- (2) (Ω, \mathcal{Q}) is a hypersoft closed set if and only if $(\Omega, \mathcal{Q})=h-cl(\Omega, \mathcal{Q})^{"}$.

Proposition 2.9. [15] "Let $((\Omega, \mathsf{P}), \tau)$ be a hypersoft TS and let (Ω, \mathscr{Q}) be a hypersoft set then

- (1) $h\text{-int}(\Omega, \mathcal{Q})$ is the largest hypersoft open set contained in (Ω, \mathcal{Q}) .
- (2) (Ω, \mathcal{Q}) is a hypersoft open set if and only if $(\Omega, \mathcal{Q}) = h$ -int (Ω, \mathcal{Q}) ".

Proposition 2.10. [15] "Let $((\Omega, \mathsf{P}), \tau)$ be a hypersoft TS and let $(\Omega, \mathcal{Q}), (\Omega, \mathfrak{R})$ be a hypersoft sets over U. Then

- (1) $h\text{-}int(h\text{-}int(\Omega, \mathcal{Q})) = h\text{-}int((\Omega, \mathcal{Q})).$
- (2) $(\Omega, \mathscr{Q}) \subseteq (\Omega, \mathfrak{R})$ implies $h\text{-int}(\Omega, \mathscr{Q}) \subseteq h\text{-int}(\Omega, \mathfrak{R})$.
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- (3) h-int $((\Omega, \mathscr{Q}) \cup (\Omega, \mathfrak{R})) \subseteq h$ -int $(\Omega, \mathscr{Q}) \cup h$ -int (Ω, \mathfrak{R}) .
- (4) $h\operatorname{-int}((\Omega, \mathscr{Q}) \cap (\Omega, \mathfrak{R})) = h\operatorname{-int}(\Omega, \mathscr{Q}) \cap h\operatorname{-int}(\Omega, \mathfrak{R})^{"}.$

Proposition 2.11. [15] "Let $((\Omega, \mathsf{P}), \tau)$ be a hypersoft TS and let $(\Omega, \mathcal{Q}), (\Omega, \mathfrak{R})$ be a hypersoft sets over U. Then

- (1) $(\Omega, \mathscr{Q}) \subseteq (\Omega, \mathfrak{R})$ implies $h cl(\Omega, \mathscr{Q}) \subseteq h cl(\Omega, \mathfrak{R})$.
- (2) $h\text{-}cl((\Omega, \mathscr{Q}) \cup (\Omega, \mathfrak{R})) = h\text{-}cl(\Omega, \mathscr{Q}) \cup h\text{-}cl(\Omega, \mathfrak{R}).$
- $(3) \ h\text{-}cl((\Omega,\mathscr{Q})\cap(\Omega,\mathfrak{R}))\subseteq h\text{-}cl(\Omega,\mathscr{Q})\cap h\text{-}cl(\Omega,\mathfrak{R}).$
- (4) $h\text{-}cl(h\text{-}cl(\Omega, \mathcal{Q}))=h\text{-}cl((\Omega, \mathcal{Q}))^{"}$.

3. Hypersoft semi-open sets and hypersoft semi-closed sets

In this segment we produce the notion of hypersoft SOS, hypersoft SCS and examine a few of its properties.

Definition 3.1. Let (Ω, \mathscr{Q}) be a hypersoft set of a hypersoft TS $((\Omega, \mathsf{P}), \tau)$. (Ω, \mathscr{Q}) is known as a hypersoft SOS if $(\Omega, \mathscr{Q}) \subseteq h\text{-}cl(h\text{-}int(\Omega, \mathscr{Q}))$.

Definition 3.2. A hypersoft set (Ω, \mathscr{Q}) in a hypersoft TS $((\Omega, \mathsf{P}), \tau)$ is called a hypersoft SCS if its relative complement is a hypersoft SOS.

Example 3.3. Let $U = \{h_1, h_2\}$, $Q_1 = \{\ell_1, \ell_2\}$, $Q_2 = \{\ell_3\}$, $Q_3 = \{\ell_4\}$ and let Ω is a function from $\mathsf{P} \to \mathsf{P}(\mathsf{U})$. Then the hypersoft sets are classified as follows.

$$\begin{split} &(\Omega,\mathsf{P})_1 = \{((\ell_1,\ell_3,\ell_4),\emptyset),((\ell_2,\ell_3,\ell_4),\emptyset)\},\\ &(\Omega,\mathsf{P})_2 = \{((\ell_1,\ell_3,\ell_4),\emptyset),((\ell_2,\ell_3,\ell_4),\{h_1\})\},\\ &(\Omega,\mathsf{P})_3 = \{((\ell_1,\ell_3,\ell_4),\emptyset),((\ell_2,\ell_3,\ell_4),\{h_2\})\},\\ &(\Omega,\mathsf{P})_4 = \{((\ell_1,\ell_3,\ell_4),\{h_1\}),((\ell_2,\ell_3,\ell_4),\{h_1\})\},\\ &(\Omega,\mathsf{P})_5 = \{((\ell_1,\ell_3,\ell_4),\{h_1\}),((\ell_2,\ell_3,\ell_4),\{h_1\})\},\\ &(\Omega,\mathsf{P})_6 = \{((\ell_1,\ell_3,\ell_4),\{h_1\}),((\ell_2,\ell_3,\ell_4),\{h_2\})\},\\ &(\Omega,\mathsf{P})_7 = \{((\ell_1,\ell_3,\ell_4),\{h_2\}),((\ell_2,\ell_3,\ell_4),\{h_1,h_2\})\},\\ &(\Omega,\mathsf{P})_8 = \{((\ell_1,\ell_3,\ell_4),\{h_2\}),((\ell_2,\ell_3,\ell_4),\{h_1\})\},\\ &(\Omega,\mathsf{P})_{10} = \{((\ell_1,\ell_3,\ell_4),\{h_2\}),((\ell_2,\ell_3,\ell_4),\{h_1\})\},\\ &(\Omega,\mathsf{P})_{10} = \{((\ell_1,\ell_3,\ell_4),\{h_2\}),((\ell_2,\ell_3,\ell_4),\{h_1\})\},\\ &(\Omega,\mathsf{P})_{12} = \{((\ell_1,\ell_3,\ell_4),\{h_2\}),((\ell_2,\ell_3,\ell_4),\{h_1,h_2\})\},\\ &(\Omega,\mathsf{P})_{13} = \{((\ell_1,\ell_3,\ell_4),\{h_1,h_2\}),((\ell_2,\ell_3,\ell_4),\{h_1\})\},\\ &(\Omega,\mathsf{P})_{15} = \{((\ell_1,\ell_3,\ell_4),\{h_1,h_2\}),((\ell_2,\ell_3,\ell_4),\{h_1,h_2\})\},\\ &(\Omega,\mathsf{P})_{16} = \{(\ell_1,\ell_3,\ell_4),\{h_1,h_2\}),\\ &(\Omega,$$

 $\underline{\tau = \{(\Omega, \mathsf{P})_1, (\Omega, \mathsf{P})_5, (\Omega, \mathsf{P})_7, (\Omega, \mathsf{P})_8, (\Omega, \mathsf{P})_{16}\}}.$

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Then $((\Omega, \mathsf{P}), \tau)$ is a hypersoft TS. The collection of all hypersoft open sets is $\{(\Omega, \mathsf{P})_1, (\Omega, \mathsf{P})_5, (\Omega, \mathsf{P})_7, (\Omega, \mathsf{P})_8, (\Omega, \mathsf{P})_{16}\}$. The set of all hypersoft closed sets is $\{(\Omega, \mathsf{P})_1, (\Omega, \mathsf{P})_9, (\Omega, \mathsf{P})_{10}, (\Omega, \mathsf{P})_{12}, (\Omega, \mathsf{P})_{16}\}$.

The collection of hypersoft SOS is

 $\{(\Omega,\mathsf{P})_1,(\Omega,\mathsf{P})_5,(\Omega,\mathsf{P})_6,(\Omega,\mathsf{P})_7,(\Omega,\mathsf{P})_8,(\Omega,\mathsf{P})_{13},(\Omega,\mathsf{P})_{14},(\Omega,\mathsf{P})_{15},(\Omega,\mathsf{P})_{16}\}.$

The collection of hypersoft SCS is

 $\{(\Omega, \mathsf{P})_1, (\Omega, \mathsf{P})_2, (\Omega, \mathsf{P})_3, (\Omega, \mathsf{P})_4, (\Omega, \mathsf{P})_9, (\Omega, \mathsf{P})_{10}, (\Omega, \mathsf{P})_{11}, (\Omega, \mathsf{P})_{12}, (\Omega, \mathsf{P})_{16}\}.$

Theorem 3.4. Every hypersoft open set in a hypersoft $TS((\Omega, \mathsf{P}), \tau)$ is a hypersoft SOS.

Proof:

Let (Ω, \mathcal{Q}) be a hypersoft open set. Then $h\text{-}int(\Omega, \mathcal{Q}) = (\Omega, \mathcal{Q})$. we know that, $(\Omega, \mathcal{Q}) \subseteq h\text{-}cl(\Omega, \mathcal{Q})$. Thus $(\Omega, \mathcal{Q}) \subseteq h\text{-}cl(h\text{-}int(\Omega, \mathcal{Q}))$.

The preceding Ex. 3.5 demonstrate that the reverse implification of Thm. 3.4 is not true.

Example 3.5. Consider the hypersoft TS of Ex. 3.3. Here $(\Omega, \mathsf{P})_6, (\Omega, \mathsf{P})_{13}, (\Omega, \mathsf{P})_{14}, (\Omega, \mathsf{P})_{15}$ are hypersoft semi-open set but not hypersoft open sets, since $(\Omega, \mathsf{P})_6, (\Omega, \mathsf{P})_{13}, (\Omega, \mathsf{P})_{14}, (\Omega, \mathsf{P})_{15} \notin \tau$.

Remark 3.6. (\emptyset, P) and (Ω, P) are always hypersoft SCS and hypersoft SOS.

Proposition 3.7. A hypersoft set (Ω, \mathcal{Q}) in a hypersoft $TS((\Omega, \mathsf{P}), \tau)$ is a hypersoft SOS iff \exists a hypersoft open set (Ω, \mathfrak{R}) such that $(\Omega, \mathfrak{R}) \subseteq (\Omega, \mathcal{Q}) \subseteq h\text{-}cl(\Omega, \mathfrak{R}).$

Proof: Assume that $(\Omega, \mathscr{Q}) \subseteq h\text{-}cl(h\text{-}int(\Omega, \mathscr{Q}))$. Then for $(\Omega, \mathfrak{R}) = h\text{-}int(\Omega, \mathscr{Q})$, we have $(\Omega, \mathfrak{R}) \subseteq (\Omega, \mathscr{Q}) \subseteq h\text{-}cl(\Omega, \mathfrak{R})$. Therefore, the condition holds. Conversely, suppose that $(\Omega, \mathfrak{R}) \subseteq (\Omega, \mathscr{Q}) \subseteq h\text{-}cl(\Omega, \mathfrak{R})$ for some hypersoft open set (Ω, \mathfrak{R}) . Since $(\Omega, \mathfrak{R}) \subseteq h\text{-}cl(\Omega, \mathfrak{R})$. Hence $(\Omega, \mathscr{Q}) \subseteq h\text{-}cl(\Omega, \mathfrak{R}) \subseteq h\text{-}cl(\Omega, \mathfrak{R})$.

Theorem 3.8. Let $((\Omega, \mathsf{P}), \tau)$ be a hypersoft TS and $\{(\Omega, \mathscr{Q})_{\alpha} : \alpha \in \Delta\}$ be a set of hypersoft SOS in $((\Omega, \mathsf{P}), \tau)$. Then $\bigcup_{\alpha \in \Delta} (\Omega, \mathscr{Q})_{\alpha}$ is also a hypersoft SOS.

Proof: Let $\{(\Omega, \mathscr{Q})_{\alpha} : \alpha \in \Delta\}$ be a set of hypersoft SOS in $((\Omega, \mathsf{P}), \tau)$. Then $\forall \alpha \in \Delta$, we have a hypersoft open set $(\Omega, \mathfrak{R})_{\alpha} \subseteq (\Omega, \mathscr{Q})_{\alpha}$ such that $(\Omega, \mathfrak{R})_{\alpha} \subseteq (\Omega, \mathscr{Q})_{\alpha} \subseteq h\text{-}cl(\Omega, \mathfrak{R})_{\alpha}$. Then $\cup_{\alpha \in \Delta} (\Omega, \mathfrak{R})_{\alpha} \subseteq \cup_{\alpha \in \Delta} (\Omega, \mathscr{Q})_{\alpha} \subseteq \cup_{\alpha \in \Delta} h\text{-}cl(\Omega, \mathfrak{R})_{\alpha} \subseteq h\text{-}cl(\Omega, \mathfrak{R})_{\alpha} \subseteq h\text{-}cl(\Omega, \mathfrak{R})_{\alpha}$.

Theorem 3.9. Every hypersoft closed set in a hypersoft $TS((\Omega, \mathsf{P}), \tau)$ is a hypersoft SCS.

Proof: Let (Ω, \mathscr{Q}) be a hypersoft closed set. Then $h\text{-}cl(\Omega, \mathscr{Q}) = (\Omega, \mathscr{Q})$, we know that, $(\Omega, \mathscr{Q}) \supseteq h\text{-}int(\Omega, \mathscr{Q})$. Thus $(\Omega, \mathscr{Q}) \supseteq h\text{-}int(h\text{-}cl(\Omega, \mathscr{Q}))$.

The opposite simplification of Thm. 3.9 cannot be true, as demonstrated by Ex. 3.10 before it.

Example 3.10. Here $(\Omega, \mathsf{P})_2$, $(\Omega, \mathsf{P})_3$, $(\Omega, \mathsf{P})_4$ and $(\Omega, \mathsf{P})_{11}$ are hypersoft SCS but not hypersoft closed sets.

Theorem 3.11. (Ω, \mathfrak{R}) be a hypersoft semi-closed in a hypersoft TS $((\Omega, \mathsf{P}), \tau)$ iff hint $(\Omega, \mathscr{T}) \subseteq (\Omega, \mathfrak{R}) \subseteq (\Omega, \mathscr{T})$ for some hypersoft closed set (Ω, \mathscr{T}) .

Proof: (Ω, \mathfrak{R}) is hypersoft semi-closed iff $(\Omega, \mathfrak{R})^c$ is hypersoft semi-open iff there is a hypersoft open set (Ω, \mathscr{S}) s.t. $(\Omega, \mathscr{S}) \subseteq (\Omega, \mathfrak{R})^c \subseteq h\text{-}cl(\Omega, \mathscr{S})$, by proposition 3.7 iff there is a hypersoft open set (Ω, \mathscr{S}) s.t. $(h\text{-}cl(\Omega, \mathscr{S}))^c \subseteq (\Omega, \mathfrak{R}) \subseteq (\Omega, \mathscr{S})^c$ iff there is a hypersoft open set (Ω, \mathscr{S}) s.t. $h\text{-}int(\Omega, \mathscr{S})^c \subseteq (\Omega, \mathfrak{R}) \subseteq (\Omega, \mathscr{S})^c$ iff there is a hypersoft closed set (Ω, \mathscr{S}) s.t. $h\text{-}int(\Omega, \mathscr{T}) \subseteq (\Omega, \mathfrak{R}) \subseteq (\Omega, \mathscr{T})$, where $(\Omega, \mathscr{T}) = (\Omega, \mathscr{S})^c$.

Theorem 3.12. A hypersoft set (Ω, \mathcal{Q}) in a hypersoft $TS((\Omega, \mathsf{P}), \tau)$ is hypersoft semi-closed iff h-int(h- $cl(\Omega, \mathcal{Q})) \subseteq (\Omega, \mathcal{Q})$.

Proof: (Ω, \mathscr{Q}) is hypersoft semi-closed iff $(\Omega, \mathscr{Q})^c$ is hypersoft semi-open iff $(\Omega, \mathscr{Q})^c \subseteq h\text{-}cl(h\text{-}int(\Omega, \mathscr{Q})^c)$ iff $(\Omega, \mathscr{Q})^c \subseteq h\text{-}cl((h\text{-}cl(\Omega, \mathscr{Q}))^c)$, by definition iff $(\Omega, \mathscr{Q})^c \subseteq (h\text{-}int(h\text{-}cl(\Omega, \mathscr{Q})))^c$, iff $h\text{-}int(h\text{-}cl(\Omega, \mathscr{Q})) \subseteq (\Omega, \mathscr{Q})$.

Theorem 3.13. Let $((\Omega, \mathsf{P}), \tau)$ be a hypersoft TS and

 $\{(\Omega, \mathscr{Q})_{\alpha} : \alpha \in \Delta\}$ be a set of hypersoft SCS in $((\Omega, \mathsf{P}), \tau)$. Then $\cap_{\alpha \in \Delta}(\Omega, \mathscr{Q})_{\alpha}$ is also a hypersoft SCS.

Proof: Let $\{(\Omega, \mathscr{Q})_{\alpha} : \alpha \in \Delta\}$ be a set of hypersoft SCS in $((\Omega, \mathsf{P}), \tau)$. Then $\forall \alpha \in \Delta$, we have a hypersoft soft closed set $(\Omega, \mathfrak{R})_{\alpha}$ s.t. $h\text{-}int(\Omega, \mathfrak{R})_{\alpha} \subseteq (\Omega, \mathscr{Q})_{\alpha} \subseteq (\Omega, \mathfrak{R})_{\alpha}$. Then $h\text{-}int(\cap_{\alpha\in\Delta}(\Omega, \mathfrak{R}_{\alpha})) \subseteq \cap_{\alpha\in\Delta}h\text{-}int(\Omega, \mathfrak{R}_{\alpha}) \subseteq \cap_{\alpha\in\Delta}(\Omega, \mathscr{Q})_{\alpha} \subseteq \cap_{\alpha\in\Delta}(\Omega, \mathfrak{R})_{\alpha}$. Because $\cap_{\alpha\in\Delta}(\Omega, \mathfrak{R})_{\alpha} = (\Omega, \mathfrak{R})$ is hypersoft closed set by prop 2.6(3), then $\cap_{\alpha\in\Delta}(\Omega, \mathscr{Q})_{\alpha}$ is hypersoft SCS.

4. Hypersoft semi-interior and hypersoft semi-closure

Definition 4.1. Let $((\Omega, \mathsf{P}), \tau)$ be a hypersoft TS and let (Ω, \mathcal{Q}) be a hypersoft set in (Ω, P) .

(1) The hypersoft semi-interior of (Ω, \mathscr{Q}) is the hypersoft set $\bigcup \{(\Omega, \mathfrak{R}) : (\Omega, \mathfrak{R}) \text{ is hypersoft semi-open and } (\Omega, \mathfrak{R}) \subseteq (\Omega, \mathscr{Q}) \}$ and it is identified by $h\text{-sint}(\Omega, \mathscr{Q}).$

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(2) The hypersoft semi-closure of (Ω, 𝔅) is the hypersoft set ∩{(Ω, 𝔅) : (Ω, 𝔅) is hypersoft semi-closed and (Ω, 𝔅) ⊆ (Ω, 𝔅)} and it is identified by h-scl(Ω, 𝔅). Clearly, h-scl(Ω, 𝔅) is the smallest hypersoft SCS containing (Ω, 𝔅) and h-sint(Ω, 𝔅) is the largest hypersoft SOS ⊆ (Ω, 𝔅). By Thm. 3.8 and 3.13, we have

h-sint (Ω, \mathcal{Q}) is hypersoft SOS and h-scl (Ω, \mathcal{Q}) is hypersoft SCS.

Example 4.2. Let the hypersoft TS $((\Omega, \mathsf{P}), \tau)$ and the hypersoft set $(\Omega, \mathsf{P})_8 = \{(\ell_1, \ell_3, \ell_4), \{h_1\}), ((\ell_2, \ell_3, \ell_4), \{h_1, h_2\})\}$ be the same as in Example 3.3, we get h-sint $(\Omega, \mathscr{Q})_8 = (\Omega, \mathscr{Q})_8$.

Example 4.3. Let the hypersoft TS $((\Omega, \mathsf{P}), \tau)$ and the hypersoft set $(\Omega, \mathsf{P})_{14} = \{((\ell_1, \ell_3, \ell_4), \{h_1, h_2\}), ((\ell_2, \ell_3, \ell_4), \{h_1\})\}$ be the same as in Example 3.3, we get h-scl $(\Omega, \mathcal{Q})_{14} = (\Omega, \mathcal{Q})_{16}$.

Theorem 4.4. Let $((\Omega, \mathsf{P}), \tau)$ be a hypersoft TS and (Ω, \mathscr{Q}) be a hypersoft set in (Ω, P) . Then $h\text{-int}(\Omega, \mathscr{Q}) \subseteq h\text{-sint}(\Omega, \mathscr{Q}) \subseteq (\Omega, \mathscr{Q}) \subseteq h\text{-scl}(\Omega, \mathscr{Q}) \subseteq h\text{-cl}(\Omega, \mathscr{Q}).$

Proof: The proof follows from the following facts that every hypersoft open set is hypersoft SOS and every hypersoft closed set is hypersoft SCS.

Theorem 4.5. Let $((\Omega, \mathsf{P}), \tau)$ be a hypersoft TS and let (Ω, \mathcal{Q}) be a hypersoft set in (Ω, P) . Then the succeeding conditions holds.

- (1) $(h\text{-}scl(\Omega, \mathscr{Q}))^c = h\text{-}sint(\Omega, \mathscr{Q})^c$.
- (2) $(h\text{-}sint(\Omega, \mathscr{Q}))^c = h\text{-}scl(\Omega, \mathscr{Q})^c.$

Proof:

- (1) (h-scl(Ω, 𝔅))^c
 =(∩{(Ω, 𝔅) : (Ω, 𝔅) is hypersoft semi-closed and (Ω, 𝔅) ⊆ (Ω, 𝔅)})^c,
 =∪{(Ω, 𝔅)^c : (Ω, 𝔅) is hypersoft semi-closed and (Ω, 𝔅) ⊆ (Ω, 𝔅)},
 =∪{(Ω, 𝔅)^c : (Ω, 𝔅)^c, is hypersoft semi-open and (Ω, 𝔅)^c ⊆ (Ω, 𝔅)^c},
 =h-sint(Ω, 𝔅)^c.
 (2) (h-sint(Ω, 𝔅))^c
- $= (\bigcup \{ (\Omega, \mathfrak{R}) : (\Omega, \mathfrak{R}) \text{ is hypersoft semi-open and } (\Omega, \mathfrak{R}) \subseteq (\Omega, \mathscr{Q}) \})^c,$ $= \bigcap \{ (\Omega, \mathfrak{R})^c : (\Omega, \mathfrak{R}) \text{ is hypersoft semi-open and } (\Omega, \mathfrak{R}) \subseteq (\Omega, \mathscr{Q}) \},$ $= \bigcup \{ (\Omega, \mathfrak{R})^c : (\Omega, \mathfrak{R})^c \text{ is hypersoft semi-closed and } (\Omega, \mathscr{Q})^c \subseteq (\Omega, \mathfrak{R})^c \},$ $= h - scl(\Omega, \mathscr{Q})^c.$

Theorem 4.6. Let $((\Omega, \mathsf{P}), \tau)$ be a hypersoft TS and let (Ω, \mathscr{Q}) and (Ω, \mathfrak{R}) be a hypersoft sets in (Ω, P) . Then the preceding condition holds.

- (1) h-scl $(\emptyset, \mathsf{P}) = (\emptyset, \mathsf{P})$ and h-scl $(\Omega, \mathsf{P}) = (\Omega, \mathsf{P})$
- (2) (Ω, \mathcal{Q}) is hypersoft semi-closed set iff $(\Omega, \mathcal{Q}) = h \operatorname{-scl}(\Omega, \mathcal{Q})$.
- (3) h-scl(h-scl $(\Omega, \mathcal{Q}))$ =h-scl (Ω, \mathcal{Q}) .
- (4) $(\Omega, \mathscr{Q}) \subseteq (\Omega, \mathfrak{R})$ implies $h\operatorname{-scl}(\Omega, \mathscr{Q}) \subseteq h\operatorname{-scl}(\Omega, \mathfrak{R})$.
- (5) $h\operatorname{-scl}((\Omega, \mathscr{Q}) \cap (\Omega, \mathfrak{R})) \subseteq h\operatorname{-scl}(\Omega, \mathscr{Q}) \cap h\operatorname{-scl}(\Omega, \mathfrak{R}).$
- $(6) \ h\operatorname{-scl}((\Omega,\mathscr{Q})\cup(\Omega,\mathfrak{R}))=h\operatorname{-scl}(\Omega,\mathscr{Q})\cup h\operatorname{-scl}(\Omega,\mathfrak{R}).$

Proof:

- (1) The proof is obvious.
- (2) If (Ω, \mathscr{Q}) is hypersoft SCS, then (Ω, \mathscr{Q}) is itself a hypersoft SCS in (Ω, P) which $\subset (\Omega, \mathscr{Q})$. So, $h\operatorname{-scl}(\Omega, \mathscr{Q})$ is the smallest hypersoft SCS $\subset (\Omega, \mathscr{Q})$ and $(\Omega, \mathscr{Q}) = h\operatorname{-scl}(\Omega, \mathscr{Q})$. Conversely, suppose that $(\Omega, \mathscr{Q}) = h\operatorname{-scl}(\Omega, \mathscr{Q})$. Since $h\operatorname{-scl}(\Omega, \mathscr{Q})$ is a hypersoft SCS, so (Ω, \mathscr{Q}) is hypersoft SCS.
- (3) Since h- $scl(\Omega, \mathscr{Q})$ is a hypersoft SCS therefore by part(2) we obtain h-scl(h- $scl(\Omega, \mathscr{Q}))=h$ - $scl(\Omega, \mathscr{Q}).$
- (4) Suppose that $(\Omega, \mathscr{Q}) \subseteq (\Omega, \mathfrak{R})$. Then every hypersoft semi-closed super set of (Ω, \mathfrak{R}) will also $\subset (\Omega, \mathscr{Q})$. That is every hypersoft semi-closed super set of (Ω, \mathfrak{R}) is also a hypersoft semi-closed super set of (Ω, \mathscr{Q}) . Thus $h\operatorname{-scl}(\Omega, \mathscr{Q}) \subseteq h\operatorname{-scl}(\Omega, \mathfrak{R})$.
- (5) Since $(\Omega, \mathscr{Q}) \cap (\Omega, \mathfrak{R}) \subseteq (\Omega, \mathscr{Q})$ and $(\Omega, \mathscr{Q}) \cap (\Omega, \mathfrak{R}) \subseteq (\Omega, \mathfrak{R})$ and so by part(4) h-scl $((\Omega, \mathscr{Q}) \cap (\Omega, \mathfrak{R})) \subseteq h$ -scl (Ω, \mathscr{Q}) and h-scl $((\Omega, \mathscr{Q}) \cap (\Omega, \mathfrak{R})) \subseteq h$ -scl (Ω, \mathfrak{R}) . Thus h-scl $((\Omega, \mathscr{Q}) \cap (\Omega, \mathfrak{R})) \subseteq h$ -scl $(\Omega, \mathscr{Q}) \cap h$ -scl (Ω, \mathfrak{R}) .
- (6) Since $(\Omega, \mathscr{Q}) \subseteq (\Omega, \mathscr{Q}) \cup (\Omega, \mathfrak{R})$ and $(\Omega, \mathfrak{R}) \subseteq (\Omega, \mathscr{Q}) \cup (\Omega, \mathfrak{R})$. So by part(iv) $(\Omega, \mathscr{Q}) \subseteq (\Omega, \mathfrak{R})$ implies $h \cdot scl(\Omega, \mathscr{Q}) \subseteq h \cdot scl(\Omega, \mathfrak{R})$. Then $h \cdot scl(\Omega, \mathscr{Q}) \subseteq$ $h \cdot scl((\Omega, \mathscr{Q}) \cup (\Omega, \mathfrak{R}))$ and $h \cdot scl(\Omega, \mathfrak{R}) \subseteq h \cdot scl((\Omega, \mathscr{Q}) \cup (\Omega, \mathfrak{R}))$, which is implies $h \cdot scl(\Omega, \mathscr{Q}) \cup h \cdot scl(\Omega, \mathfrak{R}) \subseteq h \cdot scl((\Omega, \mathscr{Q}) \cup (\Omega, \mathfrak{R}))$. Now, $h \cdot scl(\Omega, \mathscr{Q})$, $h \cdot scl(\Omega, \mathfrak{R})$ is belong to hypersoft SCS in (Ω, P) which is implies that $h \cdot scl(\Omega, \mathscr{Q}) \cup$ $h \cdot scl(\Omega, \mathfrak{R})$ is belong to hypersoft SCS in (Ω, P) . Then $(\Omega, \mathscr{Q}) \subseteq$ $h \cdot scl(\Omega, \mathscr{Q})$ and $(\Omega, \mathfrak{R}) \subseteq h \cdot scl(\Omega, \mathfrak{R})$ imply $(\Omega, \mathscr{Q}) \cup (\Omega, \mathfrak{R}) \subseteq h \cdot scl(\Omega, \mathscr{Q}) \cup$ $h \cdot scl(\Omega, \mathfrak{R})$. That is $h \cdot scl(\Omega, \mathscr{Q}) \cup h \cdot scl(\Omega, \mathfrak{R})$ is a hypersoft SCS containing $(\Omega, \mathscr{Q}) \subseteq$ (Ω, \mathfrak{R}) . Hence $h \cdot scl((\Omega, \mathscr{Q}) \cup (\Omega, \mathfrak{R})) \subseteq h \cdot scl(\Omega, \mathfrak{R})$. So, $h \cdot scl((\Omega, \mathscr{Q}) \cup (\Omega, \mathfrak{R})) = h \cdot scl(\Omega, \mathscr{Q}) \cup h \cdot scl(\Omega, \mathfrak{R})$.

Theorem 4.7. Let $((\Omega, \mathsf{P}), \tau)$ be a hypersoft TS and let (Ω, \mathscr{Q}) and (Ω, \mathfrak{R}) be a hypersoft sets in (Ω, P) . Then the succeeding condition holds.

- (1) h-sint(\emptyset , P)=(\emptyset , P) and h-sint(Ω , P)=(Ω , P).
- (2) (Ω, \mathcal{Q}) is hypersoft SOS iff $(\Omega, \mathcal{Q}) = h\text{-sint}(\Omega, \mathcal{Q})$.
- (3) h-sint(h-sint $(\Omega, \mathcal{Q}))$ =h-sint (Ω, \mathcal{Q}) .

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- (4) $(\Omega, \mathcal{Q}) \subseteq (\Omega, \mathfrak{R})$ implies h-sint $(\Omega, \mathcal{Q}) \subseteq h$ -sint (Ω, \mathfrak{R}) .
- (5) $h\operatorname{-sint}(\Omega, \mathscr{Q}) \cap h\operatorname{-sint}(\Omega, \mathfrak{R}) \subseteq h\operatorname{-sint}((\Omega, \mathscr{Q}) \cap (\Omega, \mathfrak{R})).$
- (6) $h\operatorname{-sint}((\Omega, \mathscr{Q}) \cup (\Omega, \mathfrak{R})) = h\operatorname{-sint}(\Omega, \mathscr{Q}) \cup h\operatorname{-sint}(\Omega, \mathfrak{R}).$

Proof:

- (1) The proof is obvious.
- (2) If (Ω, 2) is hypersoft SOS, then (Ω, 2) is itself a hypersoft SOS in (Ω, P) ⊂ (Ω, 2). So, h-sint(Ω, 2) is the largest hypersoft SOS contained in (Ω, 2) and (Ω, 2) = h-sint(Ω, 2). Conversely, suppose that
 (Ω, 2) = h-sint(Ω, 2). Since h-sint(Ω, 2) is a hypersoft SOS, so (Ω, 2) is hypersoft semi-open set in (Ω, P).
- (3) Since h-sint (Ω, \mathcal{Q}) is a hypersoft SOS therefore by part(2) we have h-sint(h-sint $(\Omega, \mathcal{Q}))=h$ -sint (Ω, \mathcal{Q}) .
- (4) Suppose that (Ω, 2) ⊆ (Ω, ℜ). Since h-sint(Ω, 2) ⊆ (Ω, 2) ⊆ (Ω, ℜ). h-sint(Ω, 2) is a hypersoft semi-open subset of (Ω, ℜ), so by defn. of h-sint(Ω, ℜ), h-sint(Ω, 2) ⊆ h-sint(Ω, ℜ).
- (5) Since $(\Omega, \mathscr{Q}) \subseteq (\Omega, \mathscr{Q}) \cap ((\Omega, \mathfrak{R}) \text{ and } (\Omega, \mathfrak{R}) \subseteq (\Omega, \mathscr{Q}) \cap ((\Omega, \mathfrak{R}) \text{ and so by part}(4),$ $h\text{-sint}(\Omega, \mathscr{Q}) \subseteq h\text{-sint}((\Omega, \mathscr{Q}) \cap (\Omega, \mathfrak{R})) \text{ and } h\text{-sint}(\Omega, \mathfrak{R}) \subseteq h\text{-sint}((\Omega, \mathscr{Q}) \cap (\Omega, \mathfrak{R})).$ So that $h\text{-sint}(\Omega, \mathscr{Q}) \cap h\text{-sint}(\Omega, \mathfrak{R}) \subseteq h\text{-sint}((\Omega, \mathscr{Q}) \cap (\Omega, \mathfrak{R})),$ since $h\text{-sint}((\Omega, \mathscr{Q}) \cap (\Omega, \mathfrak{R}))$ is a hypersoft semi-open set.
- (6) Since (Ω, 2) ⊆ (Ω, 2) ∪ (Ω, ℜ) and (Ω, ℜ) ⊆ (Ω, 2) ∪ (Ω, ℜ) and So by part(4)
 (Ω, 2) ⊆ (Ω, ℜ) implies h-sint(Ω, 2) ⊆ h-sint(Ω, ℜ). Then h-sint(Ω, 2) ⊆
 h-sint((Ω, 2) ∪ (Ω, ℜ)) and h-sint(Ω, ℜ) ⊆ h-sint((Ω, 2) ∪ (Ω, ℜ)) which is implies
 h-sint(Ω, 2) ∪ h-sint(Ω, ℜ) ⊆ h-sint((Ω, 2) ∪ (Ω, ℜ)). Now, h-sint(Ω, 2),
 h-sint(Ω, ℜ) is belong to hypersoft SOS in (Ω, P) which is implies that h-sint(Ω, 2) ∪ h-sint(Ω, ℜ) is belong to hypersoft SOS in (Ω, P). Then (Ω, 2) ⊆ h-sint(Ω, 2) ∪ h-sint(Ω, ℜ) imply (Ω, 2) ∪ (Ω, ℜ) ⊆
 h-sint(Ω, 2) ∪ h-sint(Ω, ℜ). That is h-sint(Ω, 2) ∪ h-sint(Ω, ℜ). is a hypersoft SOS containing (Ω, 2) ∪ (Ω, ℜ). Hence h-sint((Ω, 2) ∪ (Ω, ℜ)) ⊆
 h-sint(Ω, 2) ∪ h-sint(Ω, ℜ). So, h-sint((Ω, 2) ∪ (Ω, ℜ))=h-sint(Ω, 2) ∪
 h-sint(Ω, ℜ).

Theorem 4.8. Let $((\Omega, \mathsf{P}), \tau)$ be a hypersoft TS and let (Ω, \mathcal{Q}) be a hypersoft set in (Ω, P) . Then the preceding conditions holds.

- $(1) \ h\text{-}scl(h\text{-}cl(\Omega,\mathscr{Q})) = h\text{-}cl(h\text{-}scl(\Omega,\mathscr{Q})) = h\text{-}cl(\Omega,\mathscr{Q}).$
- (2) $h\operatorname{-sint}(h\operatorname{-int}(\Omega, \mathscr{Q})) = h\operatorname{-int}(h\operatorname{-sint}(\Omega, \mathscr{Q})) = h\operatorname{-int}(\Omega, \mathscr{Q}).$

Proof:

- (1) Let $h\text{-}cl(\Omega, \mathscr{Q})$ is hypersoft closed set, then $h\text{-}cl(\Omega, \mathscr{Q})$ is hypersoft SCS by Thm. 3.9. So we can get $h\text{-}scl(h\text{-}cl(\Omega, \mathscr{Q})) = h\text{-}cl(\Omega, \mathscr{Q})$ by Theorem 4.6(2). By Thm. 4.4, we have $(\Omega, \mathscr{Q}) \subseteq h\text{-}scl(\Omega, \mathscr{Q}) \subseteq h\text{-}cl(\Omega, \mathscr{Q})$, then we can get $h\text{-}cl(\Omega, \mathscr{Q}) \subseteq h\text{-}cl(h\text{-}scl(\Omega, \mathscr{Q})) \subseteq h\text{-}cl(\Omega, \mathscr{Q})$ and so $h\text{-}cl(h\text{-}scl(\Omega, \mathscr{Q})) = h\text{-}cl(\Omega, \mathscr{Q})$. This completes the proof.
- (2) Let ((Ω, P), τ) be a hypersoft TS and because h-int(Ω, 2) is hypersoft open set, we have h-int(Ω, 2) is hypersoft SOS by Thm. 3.4. So we can get h-sint(h-int(Ω, 2)) = h-int(Ω, 2) by Thm. 4.7(2). By Thm. 4.4, we have h-int(Ω, 2) ⊆ h-sint(Ω, 2) ⊆ (Ω, 2), then we can get h-int(Ω, 2) ⊆ h-int(Ω, 2) ⊆ h-int(Ω, 2)) ⊆ h-int(Ω, 2) ⊆ h-int(Ω, 2).

Theorem 4.9. Let $((\Omega, \mathsf{P}), \tau)$ be a hypersoft TS and let (Ω, \mathcal{Q}) be a hypersoft set in (Ω, P) . Then the succeeding are equivalent.

- (1) (Ω, \mathcal{Q}) is hypersoft SCS.
- (2) $h\text{-}int(h\text{-}cl(\Omega, \mathscr{Q})) \subseteq (\Omega, \mathscr{Q}).$
- (3) $h\text{-}cl(h\text{-}int((\Omega, \mathscr{Q})^c) \supseteq (\Omega, \mathscr{Q})^c.$
- (4) $(\Omega, \mathscr{Q})^c$ is hypersoft SOS.

Proof:

(1) \Rightarrow (2): If (Ω, \mathscr{Q}) is hypersoft SCS, then \exists hypersoft closed set (Ω, \mathfrak{R}) s.t. $h\text{-}int(\Omega, \mathfrak{R}) \subseteq (\Omega, \mathscr{Q}) \subseteq (\Omega, \mathfrak{R}) \Rightarrow h\text{-}int(\Omega, \mathfrak{R}) \subseteq (\Omega, \mathscr{Q}) \subseteq h\text{-}cl(\Omega, \mathscr{Q}) \subseteq (\Omega, \mathfrak{R})$. By the property of interior, we get $h\text{-}int(h\text{-}cl(\Omega, \mathscr{Q})) \subseteq h\text{-}int(\Omega, \mathfrak{R}) \subseteq (\Omega, \mathscr{Q})$.

 $\begin{aligned} (2) \Rightarrow (3): \ h \text{-}int(h \text{-}cl(\Omega, \mathcal{Q})) \subseteq (\Omega, \mathcal{Q}) \Rightarrow (\Omega, \mathcal{Q})^c \subseteq h \text{-}int(h \text{-}cl(\Omega, \mathcal{Q}))^c = \\ h \text{-}cl(h \text{-}int(\Omega, \mathcal{Q})^c) \supseteq (\Omega, \mathcal{Q})^c. \end{aligned}$

 $(3) \Rightarrow (4): \ (\Omega, \mathfrak{R}) = h \text{-} int((\Omega, \mathscr{Q})^c) \text{ is an hypersoft open set s.t. } h \text{-} int((\Omega, \mathscr{Q})^c) \subseteq (\Omega, \mathscr{Q})^c \subseteq h \text{-} cl(h \text{-} int((\Omega, \mathscr{Q})^c), \text{ hence } (\Omega, \mathscr{Q})^c \text{ is hypersoft SOS.}$

 $(4) \Rightarrow (1)$: As $(\Omega, \mathscr{Q})^c$ is hypersoft SOS, \exists an hypersoft open set (Ω, \mathfrak{R}) s.t. $(\Omega, \mathfrak{R}) \subseteq (\Omega, \mathscr{Q})^c \subseteq h$ - $cl(\Omega, \mathfrak{R}) \Rightarrow (\Omega, \mathfrak{R})^c$ is a hypersoft closed set such that $(\Omega, \mathscr{Q}) \subseteq (\Omega, \mathfrak{R})^c$ and $(\Omega, \mathscr{Q})^c \subseteq h$ - $cl(\Omega, \mathfrak{R}) \Rightarrow h$ - $int(\Omega, \mathfrak{R})^c \subseteq (\Omega, \mathscr{Q})$. Hence (Ω, \mathscr{Q}) is hypersoft SCS.

5. Conclusion

We have introduced hypersoft semi-open sets in hypersoft TS which are identified over an initial universe with a fixed set of parameters. We then define hypersoft semi-interior and hypersoft semi-closure with suitable example. The concept of open sets produced in this work may be developed to α -open hypersoft sets and β -open hypersoft sets. Based on the works of **6** and **7**, our future research may be on IndetermHypersoft semi-open sets and on TreeSoft semi-open sets.

References

- Abbas, B., Murtaza, G., Smarandache, F., Basic operations on hypersoft sets and hypersoft point, Neutrosophic Sets and Systems, 35, 407-421, 2020.
- Ajay, D., Charisma, J.J., Neutrosophic hypersoft topological spaces, Neutrosophic Sets and systems, 40, 179-194, 2021.
- Ajay, D., Joseline Charisma, J., Boonsatit, N., Hammachukiattikul, P., Rajchakit, G., Neutrosophic semiopen hypersoft sets with an application to MAGDM under the COVID-19 scenario, Journal of Mathematics, 2021.
- Bin Chen, Some local properties of soft semi open sets, Hindawi Publishing Corporation Discrete Dynamics in Nature and Society, 57, 1547-1553, 2013.
- Cagman, N., Karatas, S., Enginoglu, S., Soft topology, Computers and Mathematics With Applications, 62, 351-358, 2011.
- Florentin Smarandache, Introduction to the IndetermSoft Set and IndetermHyperSoft Set, Neutrosophic Sets and Systems, 50, 2022.
- Florentin Smarandache, Practical Applications of IndetermSoft Set and IndetermHyperSoft Set and Introduction to TreeSoft Set as an extension of the MultiSoft Set, Neutrosophic Sets and Systems, 51, 2022.
- 8. Fu Li, Notes on the soft operations, APRN Journal of System and Software, 66, 205-208 2011.
- Inthumathi, V., Amsaveni, M., Arun vignesh, M., Application of Hypersoft sets in Covid-19 Decision Making Model, International Journal of Research and Analytical Reviews, 9, 2022.
- 10. Inthumathi, V., Amsaveni, M., On Hypersoft Topology, (communicated).
- Keun min, W., A note on soft topological spaces, Computers and Mathematics with Applications, 62, 3524-3528, 2011.
- Krishnaveni, J., Sekar, C., Soft semi connected and soft locally semi connected properties in soft topological spaces, International Journal of Mathematics and Soft Computing, 3(3), 85-91, 2013.
- Maji, P. K., Biswas, R., Roy, A. R., Soft set theory, Computers and Mathematics with Applications, 45(4-5), 555-562, 2013.
- Molodstov, D., Soft set theory-first results, Computers and Mathematics with Applications, 37(4-5), 19-31, 1999.
- 15. Musa, S. Y., Asaad, B. A., Hypersoft topological spaces, Neutrosophic Sets and System, 49, 2022.
- Sai, B.V.S.T., Srinivasa kumar, V., On soft semi-open sets and soft semi-topology, International Journal of Mathematical Archieve, 4(4), 114-117, 2013.
- Saeed, M., Hussain, M., Mughal, A. A., A Study of soft sets with soft members and soft elements, A New Approches Punjab University Journal of Mathematics, 52, 1-15, 2020.
- Saeed, M., Rahman, A., Ahsan, M., Smarandache, F., An inclusive study on fundamentals of hypersoft set. in Theory and Application of Hypersoft Set, 2011 Education., Smarandache, F., Saeed, M., Abdel-Baset M., Saqlain, M., Pons Publishing House, Brussels, Belgium, 1-23, 2021.
- Sasikala, V. E., Sivaraj, D., On soft semi-open sets, International Journal of Management and Applied Science, 3, Issue-9, 2017.
- Shabir, M., Naz, M., On soft topological spaces, Computers and Mathematics with Applications, 61(7), 1786-1799, 2011.
- Shabir, M., Naz, M., Some properties of soft topological spaces, Computers and Mathematics with Applications, 62, 4058-4067, 2011.
- Smarandache, F., Extension of soft set to hypersoft set, and then to plithogenic hypersoft set, Neutrosophic Sets and Systems, 22, 168-170, 2018.



 Zorlutuna, I., Akdag, M., Min, W., K., Atmaca, S., *Remarks on soft topological spaces*, Annals of Fuzzy Mathematics Informatics, 3, 171-185, 2012.

Received: April 30, 2023. Accepted: Aug 21, 2023

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7	20-PI-29	N. SABAREESWARI	СОМ	PARISON STUDY ON DIGITAL AND TRADITIONAL MARKET	INTERNATIONAL JOURNAL COMPUTATIONAL RESEAR AND DEVELOPMENT (IJCR	L OF RCH RD)	VOLUM ISSUE	E 7, 1	45-47	2022	UGC
8	20-PI-09	A. MOHAMMED IMRAN	1	TOP 15 COMMODITIES EXPORT PERFORMANCE IN INDIA	INTERNATIONAL JOURNAL COMPUTATIONAL RESEAR AND DEVELOPMENT (IJCR	L OF RCH RD)	VOLUM ISSUE	E 7, 1	48-50	2022	UGC
9	20-PI-02	M. DINESH	1	TOP 15 COMMODITIES EXPORT PERFORMANCE IN INDIA	INTERNATIONAL JOURNAL COMPUTATIONAL RESEAR AND DEVELOPMENT (IJCR	L OF RCH RD)	VOLUM ISSUE	E 7,	51-53	2022	UGC
10	20-PI-18	P. SATHRUKANA	GL	ASS AND GLASS WARE EXPORT PERFORMANCE IN INDIA	INTERNATIONAL JOURNAL COMPUTATIONAL RESEAR AND DEVELOPMENT (IJCR	L OF RCH RD)	VOLUM ISSUE	E 7, 1	63-65	2022	UGC
11	20-PI-15	K. PONRAJ	AGR	AND ALLIED PRODUCTS EXPORT PERFORMANCE IN INDIA	INTERNATIONAL JOURNAL COMPUTATIONAL RESEAR AND DEVELOPMENT (IJCR	COF CH CH	VOLUM ISSUE	E 7, 1	75-78	2022	UGC
12	20-PI-26	J. FRANCELIN ROSE MYSTICA	COSM	METICS EXPORT PERFORMANCE IN INDIA	INTERNATIONAL JOURNAL COMPUTATIONAL RESEAR AND DEVELOPMENT (IJCR	COF CH CH	VOLUM ISSUE	E 7, 1	80-84	2022	UGC
13	20-PI-09	A. MOHAMMED IMRAN	FR	ESH FRUITS AND VEGETABLES PRODUCTS EXPORT PERFORMANCE IN INDIA	INTERNATIONAL JOURNAL SCIENTIFIC RESEARCH AN MODERN EDUCATION (IJSR	OF ND ME)	VOLUM	E 7,	82-85	2022	UGC

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14	20-PI-15	K. PONRAJ	AGRI AND ALLIED PRODUCTS EXPORT PERFORMANCE IN INDIA	INTERNATIONAL JOURNAL OF SCIENTIFIC RESEARCH AND MODERN EDUCATION (JJSRME)	VOLUME 7, ISSUE 1	86-90	2022	UGC
15	20-PI-29	N. SABAREESWARI	COMPARISON STUDY OF DIGITAL AND TRADITIONAL MARKET	INTERNATIONAL JOURNAL OF SCIENTIFIC RESEARCH AND MODERN EDUCATION (JSRME)	VOLUME 7, ISSUE 1	91-93	2022	UGC
16	20-PI-02	M. DINESH	TOP 15 COMMODITIES EXPORT PERFORMANCE IN INDIA	INTERNATIONAL JOURNAL OF SCIENTIFIC RESEARCH AND MODERN EDUCATION (IJSRME)	VOLUME 7, ISSUE 1	103-106	2022	UGC
17	20-PI-18	P. SATHRUKANA	GLASS AND GLASS WAREEXPORT PERFORMANCE IN INDIA	INTERNATIONAL JOURNAL OF SCIENTIFIC RESEARCH AND MODERN EDUCATION (IJSRME)	VOLUME 7, ISSUE 1	107-110	2022	UGC
18	20-PI-26	J. FRANCELIN ROSE MYSTICA	COSMETICS EXPORT PERFORMANCE IN INDIA	INTERNATIONAL JOURNAL OF SCIENTIFIC RESEARCH AND MODERN EDUCATION (IJSRME)	VOLUME 7, ISSUE 1	115-120	2022	UGC
19	20-PI-16	S. RAJ KUMAR	RICE EXPORT PERFORMANCE IN INDIA	INTERNATIONAL JOURNAL OF SCIENTIFIC RESEARCH AND MODERN EDUCATION (IJSRME)	VOLUME 7, ISSUE 1	66-69	2022	UGC
20	20-PI-30	S. SOWMIYA	RUBBER EXPORT PERFORMANCE IN INDIA	INTERNATIONAL JOURNAL OF COMPUTATIONAL RESEARCH AND DEVELOPMENT (IJCRD)	VOLUME 7, ISSUE 1	66-69	2022	UGC
21	20-PI-16	S. RAJ KUMAR	RICE EXPORT PERFORMANCE IN INDIA	INTERNATIONAL JOURNAL OF COMPUTATIONAL RESEARCH AND DEVELOPMENT (IJCRD)	VOLUME 7, ISSUE 1	85-88	2022	UGC
22	20-PI-30	S. SOWMIYA	RUBBER EXPORT PERFORMANCE IN INDIA	INTERNATIONAL JOURNAL OF SCIENTIFIC RESEARCH AND MODERN EDUCATION (IJSRME)	VOLUME 7, ISSUE 1	99-102	2022	UGC
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2	21-PI-08	MR. MADHU BALAJI	PUBLIC HEALTH CENTERS ROLE FOR THE DEVELOPMENT OF RURAL COMMUNITIES – A DECISIVE APPROACH	MADHYA BHARTI - HUMANITIES AND SOCIAL SCIENCES	VOL. 83, NO. 18	109-114	2023	UGC care Group 1
3	21-PI-02	MR. A. ARUN PRAKASH	PUBLIC HEALTH CENTERS ROLE FOR THE DEVELOPMENT OF RURAL COMMUNITIES – A DECISIVE APPROACH (WITH SPECIAL REFERENCE TO SAMATHUR AND NALLAMPALLI PANCHAYATH)	MADHYA BHARTI - HUMANITIES AND SOCIAL SCIENCES	VOL. 83, NO. 19	68-74	2023	UGC care Group 1
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6	21-PI-18	MS. D. KIRUTHIKA	TO STUDY THE IMPACT OF DRUG ADDICTION AND THEIR LIFESTYLE ABOVE THE AGE OF 25 WITH REFERENCE TO POLLACHI TALUK	MADHYA BHARTI - HUMANITIES AND SOCIAL SCIENCES	VOL. 83, NO. 19,	95-101	2023	UGC ca Group
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9	21-PI-07	MR. LOGESH KUMAR T	EXPORT PERFORMANCE OF COIR PRODUCTS FROM INDIA	MADHYA BHARTI - HUMANITIES AND SOCIAL SCIENCES	VOL-83 NO. 18,	115	2023	UGC c Group
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A STUDY ON EXPORT PERFORMANCE OF PHOTOGRAPHIC OR CINEMATOGRAPHIC GOODS IN INDIA

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ABSTRACT:

India has a longstanding reputation for its acclaimed film industry and continues to be by far the world's largest producer of films. Nevertheless, domestic demand for films appears to be waning as in a number of developed countries with mature film industries. Hence, the econometric analysis in this paper is particularly timely as with demand for films in Indian cinemas falling it is important to identify those factors that make films appealing for Indian audiences. An original dataset is utilised that includes data on all Bollywood films released in India between 2011 and 2015. Account is taken of the potential endogeneity between variables through the use of the generalised method of moments approach. Results are used to demonstrate how the Indian film market can continue to have a significant positive impact on the Indian economy. The discussion highlights appropriate film production company strategies and government policy responses that should be considered to ensure the continued success of the Indian film industry both domestically and in an increasingly competitive international market.

STATEMENT OF THE PROBLEM:

- □ What is the significance of the cinematographic goods sector in our economy?
- □ What are the basic problems in cinematographic goods in and outside India?
- □ Has our photographic goods sector a bright future?
A STUDY ON EXPORT PERFORMANCE OF ETHANOL IN INDIA

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ABSTRACT

Ethanol Products important role in the socio- economic life of India.Ethanol production in India is expected to reach a record 3 billion liters this year, up 11 percent from 2018. India is expected to consume a record 3.8 billion liters of ethanol this year, up from a record 3.1 billion liters in 2018.The report indicates it is unlikely the country's E20 goals will be reached by 2030 due to the general inability of the cane industry to supply India's fuel demand, the fact that imports are managed in a way that minimizes the role they can play, and the expected timeframe for commercial-scale production of advanced biofuels.India currently aims to achieve an E10 blend by 2020 and E20 by 2030.main objective of the study is To find out the export performance of agriculture and processed food products of India during the period of 2005-2019. The study makes use of statistical techniques such as Percentage analysis, Growth analysis, Standard Deviation, CAGR and CV in analyzing the data for finding the result.

Keywords: Ethanol, Production, Export and India

INTRODUCTION

Ethanol production in India is expected to reach a record 3 billion liters this year, up 11 percent from 2018. Last year, approximately 2.7 billion liters of ethanol was produced from molasses.Regarding imports, the U.S. has remained the largest ethanol supplier to India for the past six years. Indian ethanol importers were down 14 percent last year, falling to 633 million

IRON AND STEEL EXPORT PERFORMANCE IN INDIA

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ABSTRACT

Iron and steel sector is the backbone of an economy. It is one of the primary vehicles of economic development of a country. The per capita production and consumption of steel is the index of the depth of a country's economic infrastructure. Increase in the use of iron and steel leads to infrastructural development and rapid industrialization of the country. History of iron and steel is the history of our civilization. Indian steel industries are classified into three categories such as major producers, main producers and secondary producers. Main objective of the study is to find out the export performance of live animal products of India during the period of 2005-2019. The study makes use of statistical techniques such as Percentage analysis, Growth analysis, Standard Deviation, CAGR and CV in analyzing the data for finding the result.

Keywords: Iron and steel, Production, Export and India

INTRODUCTION

India was the world's second-largest steel producer with production standing at 106.5 MT in 2018. The growth in the Indian steel sector has been driven by domestic availability of raw materials such as iron ore and cost-effective labour. The Iron and Steel Industry has been traditionally considered as one of the most important industrial sectors, which has a large share in India's GDP and the overall development. Though the Indian Iron and Steel Industry is nearly a

A STUDY ON EXPORT PERFORMANCE OF MAN MADE FILMENTS IN INDIA

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ABSTRACT

This study examines the Export competitiveness and Export performance of Indian textile with respect to rest of the world. The study focuses on Export performance and competitiveness of Indian textile industry during the period of 2010-2013. Export competitiveness is calculated with the help of Revealed Comparative Advantage (RCA) of eleven different product group of Textiles. Our results show that seven out of eleven products have competitive advantage and rest four products don't have competitive advantage. The commodities which are more competitive in the international market are Silk; Cotton; Vegetable textile fibres, paper yarn, woven fabric; Manmade filament; Manmade staple fibers; Carpets and other textile floor coverings and Special woven or tufted fabric, lace, tapestry etc. The commodities that are performing fairly well in international market with the highest value of RCA are Cotton and Carpets and other textile floor coverings.

Keywords: Export Performance; Export Competitiveness; Revealed Comparative Advantage

EXPORT PERFORMANCE OF TEXPROCIL:

Since its inception in 1954, as an autonomous, non-profit body dedicated to promotion of exports, The Cotton Textiles Export Promotion Council, popularly known as TEXPROCIL has been the international face of cotton textiles from India facilitating exports worldwide. Texprocil has a membership of around 3,000 companies spread across major textile clusters in India. Its members are well established manufacturers and exporters of

A STUDY ON EXPORT PERFORMANCE OF WOOD AND ARTICLES IN INDIA

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ABSTRACT

India is one of the major users of wood in the Asia - Pacific region. It has till recently the privilege of having abundant supply of wood from various tree species. Industry, sports goods, pencil making, packing cases, match factories, toy industries, gun factories and textile industries also use wood in varying quantities. In short wood is needed in the manufacture of many important items ranging from a tooth pick to an aero plane. Wood is a remarkable material with a variability and flexibility that makes it useful for many kinds of products. Wood is known to have been used for various structural and other purposes since the dawn of history and has been serving mankind even in modern times with enormous technological knowhow. It is the fifth most important product of the world trade. main objective of the study is To find out the export performance of agriculture and processed food products of India during the period of 2005-2019. The study makes use of statistical techniques such as Percentage analysis, Growth analysis, Standard Deviation, CAGR and CV in analyzing the data for finding the result.

Keywords: wood, Production, Export and India

INTRODUCTION

Wood is unique among the world's important raw materials virtually used by everyone in diverse ways. It is the hard fibrous substance beneath the bark in the stems and branches of trees and shrubs. It is basically secondary xylem produced by the merriest mastic activity of cambium and consists of cells or wood elements that have passed through various stages of development. All

A STUDY ON EXPORT PERFORMANCE OF CARPETS AND OTHER TEXTILE FLOOR COVERINGSIN INDIA

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ABSTRACT

India has a very old and rich tradition in the textile industry. Textile is a decisive part of Indian economy; The Indian Textile Industry has grown phenomenally and has an overwhelming presence in the economic life of the country. Apart from providing one of the basic necessities of life, textile industry also plays a pivotal role through its contribution to industrial output, employment generation and the export earnings of the country..Textile is a flexible material made by interlacing or connecting threads made of natural fibers like wool and cotton or synthetic (man-made) fibers like polyester. Textile floor coverings are textiles meant to be used on floor surfaces. They include carpets and related materials that are secured to a floor by something like staples, tacks or glue, as well as removable area rugs. Textile floor coverings are made by processes like knitting, weaving or needle-tufting, in which fibers are forced through a backing by using a needle. Another layer is then applied below the backing to secure the tufts in place. ISO and ASTM standards are numerous and cover a whole range of processes used in making textile floor coverings, whether handmade or machine made..main objective of the study is To find out the export performance of live animalproducts of India during the period of 2005-2019. The study makes use of statistical techniques such as Percentage analysis, Growth analysis, Standard Deviation, CAGR and CV in analyzing the data for finding the result.

Keywords: carpets and other textile floor coverings, Production, Export and India.

A STUDY ON EXPORT PERFORMANCE OF COCOA IN INDIA

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ABSTACT:

Cocoa is an important commercial plantation crop and is one among the most traded commodities in the global market. It is attempting to improve processed good export, which contributes more to over foreign exchange earnings. Cocoa is an export oriented commodity. In India, at present there are 10 multinational companies engaged in the field of cocoa industry and exports products like beans, chocolates, cocoa butter, cocoa powder and cocoa based products to other countries. India earns foreign exchange worth RS 849 cores through exports of cocoa bean and its products. In this paper an attempt is made to analyze the growth rate of export and import performance of cocoa in India. This study is mainly based on a secondary data. Tread analysis and the compound growth rate are calculated to understand the change during the study periods.

EXPORT PERFORMANCE OF APEDA:

Export refers to the statistical data about goods, commodities or services that are consigned to another country for sale or trade. There are several organization that keep track of export. As a result, they provide country-specific and global trades information and help economic planner to identify a country's key strengths and areas of improvement. There are several levels and measures for assessing export performance. Export data are collected and measured at varied levels. Reliable data sources like UN comtrade, FAO and DGCIS are the chief source of data collation in a Agri exchange statistical information has been provided here

A STUDY ON EXPORT PERFORMANCE OF ONION IN INDIA

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ABSTRACT:

India is a traditional exporter of Onion. Immediately after independence in 1951-52. The country was exporting over 5000 tones of onion stared expanding, rapidly during the sixties and reached a peak level of 427 thousand tones in 1996-97. Over the years there has been a progressive increase in the export of onion from India. Being a traditional exporter India exported 1783820MTof onion during 2008-09 with total value of 283428 Rs. lakhs which is record quantity after the export was canalized through NAFED. The major export destinations of onion are Bangladesh, Malaysia, UAE, Srilanka and Nepal.Until 1998 onion exports from the country was canalized through the National Agricultural Co-operative Marketing Federation of India (NAFED). After 1998 other 12 canalising agency were added by government of India for onion export. In a view of the above, the study was undertaken with the following objectives.1. To study the growth in export of onion. 2. To study the instability in export of onion 3. To examine the export competitiveness of onion. The study of growth in export of onion was studied by using exponential function. The instability in export was studied by coefficient of variation and cuddy and dell instability index. To study of export competitiveness NPC (Nominal protection coefficient) was used. The performance of exports with respect to growth in quantity, (8.32) value(14.94), and unit price (6.11) of export of onion showed positively significant. Cuddy and Dell's instability index showed that onion has high instability in export in terms of quantity (67.07%), value (108.12%) and unit value (36.29). The NPC for Onion is 0.57%. Thus export competitiveness indicated that there is wide scope for increasing the export of onion.

Key words : Export, Performance, Onion

EXPORT PERFORMANCE OFAPEDA IN INDIA

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ABSTRACT

India has made a lot of progress in agriculture since independence in terms of growth in output, yields and area under many crops. Agriculture derives its importance from the fact that it has vital supply and demand links with the manufacturing sector.India is one of the fastest growing economies today and among the world's leading agricultural producers and yet its trade flows are relatively small. However given the size of Indian agriculture, even small changes in its trade have a potentially large impact on world markets. main objective of the study is To find out the export performance of agriculture and processed food products of India during the period of 2005-2019. The study makes use of statistical techniques such as Percentage analysis, Growth analysis, Standard Deviation, CAGR and CV in analyzing the data for finding the result.

Keywords: Apeda, Production, Export and India

INTRODUCTION

Agriculture is the backbone of Indian Economy. About 65% of Indian population depends directly on agriculture and it accounts for around 22% of GDP. Agriculture derives its importance from the fact that it has vital supply and demand links with the manufacturing sector. During the past five years agriculture sector has witnessed spectacular advances in the production and productivity of food grains, oilseeds, commercial crops, fruits, vegetables, food grains, poultry and dairy. India has emerged as the second largest producer of fruits and

A STUDY ON EMPLOYEE WELFARE MEASURE WITH SPECIAL REFERENCE TO V-TEXTILES, POLLACHI

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ABSTARCT

Welfare facilities to the employees are provided by the organization. It has facilitated the employees with a colony of its own, with laid out roads, parks, avenues and blocks of residential areas. Quarters for the staff, managers and officers are situated near the factory site. The company is running a reputed school for the children of the employees, up to plus two level. Health care of the employees, high safety practices, recreation and cultural activities, training for workers and union leaders, family planning etc., are some of the welfare measures taken by the company. Employee welfare is an important fact of industrial relations, the extra dimension, giving satisfaction to the worker in a way which evens a good wage cannot. With the growth of industrialization and mechanization, it has acquired added importance. In this broad connotation, the term welfare refers to the state of living of an individual or a group in desirable relationship with total environment-ecological, economic and social. Conceptually as well as operationally, labour welfare is a part of social welfare, which, in turn, is closely linked to the concept, and the role of the state.

Keywords : Textiles, welfare measure, employees

INTRODUCTION

Labour welfare is an important facet of industrial relations, the extra dimension, giving satisfaction to the worker in a way which even a good wage cannot. With the growth of

A STUDY ON PERFORMANCE OF FOREIGN DIRECT INVESTMENTIN INDIA

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ABSTRACT

Foreign Direct investment plays a very important role in the development of the nation. Sometimes domestically available capital is inadequate for the purpose of overall development of the country. Apart from being a critical driver of economic growth, foreign direct investment (FDI) is a major source of non-debt financial resource for the economic development of India. Foreign companies invest in India to take advantage of relatively lower wages, special investment privileges such as tax exemptions, etc. For a country where foreign investments are being made, it also means achieving technical know-how and generating employment. Main objective of the study is to find out the export performance of live animal products of India during the period of 2005-2019. The study makes use of statistical techniques such as Percentage analysis, Growth analysis, Standard Deviation, CAGR and CV in analyzing the data for finding the result.

Keywords: Foreign Direct investment, Production, Export and India

INTRODUCTION

Foreign Direct investment plays a very important role in the development of the nation. Sometimes domestically available capital is inadequate for the purpose of overall development of the country. Foreign capital is seen as a way of filling in gaps between domestic

A STUDY ON CONSUMER BEHAVIOR OF MILKY MIST MILK (WITH SPECIAL REFERENCE TO POLLACHI TOWN)

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ABSTARCT

Milk is as ancient as mankind itself, as it is the substance created to feed the Mammalian infant. All species of mammals, from man to whales, produce milk. For this purpose ancient man learned to domesticate species of animals for the Provision of milk to be consumed by them. These included cows, buffaloes, Sheep, goats, and camels, all of which are still used in various parts of the world For the production of milk for human consumption. Convenience sampling was used to determine the sample size for the respondents.

Sample of 100 respondents were taken into study, and their data were collected. Samples for the purpose of the study are selected systematically. The study makes use of statistical techniques such as Simple Percentage analysis and Chi-square Test in analyzing the data for finding the result. India is the largest milk producer in the world with an annual production of 84.6 million MT. India is 'The Oyster' of the global dairy industry. It offers opportunities galore to entrepreneurs worldwide, who wish to capitalize on one of the world's largest and fastest growing markets for milk and milk products. A bagful of 'pearls' awaits the international dairy processor in India. The Indian dairy industry is rapidly growing, trying to keep pace with the galloping progress around the world. Dairy developments have its profound impact on the economy and nutrition levels of the country. Greater improvement opportunities are generated through dairy industry. **Keywords: milky mist.**

STUDY ON EXPORT PERFORMANCE OF FISH PRODUCTS IN INDIA

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ABSTRACT:

The fishing industry includes any industry or activity concerned with taking, culturing, processing, preserving, storing, transporting, marketing or selling fish or fish products. It is defined the Food and Agriculture Organization as by including recreational, subsistence and commercial fishing, and the harvesting, processing, and marketing sectors. The commercial activity is aimed at the delivery of fish and other seafood products for human consumption or as input factors in other industrial processes. Directly or indirectly, the livelihood of over 500 million people in developing countries depends on fisheries and aquaculture. The State of World Fisheries and Aquaculture (SOFIA) report projects that by 2030 combined production from capture fisheries and aquaculture will grow to 201 million tonnes. That's an 18 percent increase over the current production level of 171 million tonnes.

EXPORT PERFORMANCE OF MPEDA:

MPEDA is a unique organization under the Government of India having close co-ordination with all stakeholders in the entire value chain of seafood export. MPEDA regulates the industry by registering Exporters, Processing Plants, Peeling sheds, Frozen Storages, Fishing Vessels and other entities under the MPEDA Act, 1972. The export oriented Aquaculture Farms and Hatcheries are also enrolled and allotted with Unique ID. The registered/enrolled entities are technically and financially assisted by MPEDA to meet the stringent parameters of traceability and quality prescribed by the important markets such as European Union, USA and Japan. MPEDA coordinates with the governments of the importing countries for meeting their statutory requirements and facilitate export of seafood from India.

STATEMENT OF THE PROBLEM:

The problems and prospects of the sector can be analysed from the following view points

- What is the significance of the fish marketing in our in our economic development?
- What are the various types of fish products and its contribution to export?

A STUDY ON EXPORT PERFORMANCE OF PAPER BOARD IN INDIA

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ABSTRACT

This post explains export process of Paper and paperboard, articles of Paper pulp, government rules to export Paper and paperboard, articles of Paper pulp, different precautions to be taken care to export Paper and paperboard, articles of Paper pulp, export documentation to export Paper and paperboard, articles of Paper pulp. In the long-term, the India Exports of Paper & Paperboard is projected to trend around -271.20 USD Million in 2021 and -329.69 USD Million in 2022, according to our econometric models.USA is the largest market for Paper export from India. In 2019-2020 (Apr-Feb), USA imported 198.06 USD million worth Paper from India. main objective of the study is To find out the export performance of live animal products of India during the period of 2005-2019. The study makes use of statistical techniques such as Percentage analysis, Growth analysis, Standard Deviation, CAGR and CV in analyzing the data for finding the result.

Keywords: Live Animal, Production, Export and India

INTRODUCTION

India is a leading exporter of many products. Export and import in India develops day by day. Indian exports have progressively diversified in term of products and, in line with other EMs, the share of developing and emerging economies as destinations of Indian exports has increased over time. While services exports, as a share of total exports and in terms of

A STUDY ON EXPORT PERFORMANCE OF FERTILISERS IN INDIA

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ABSTRACT

Fertilizer industry forms the backbone of India's agricultural sector in ensuring sufficient food grain production. He use of fertilizers facilitates faster food grain production as compared to organic means. Instead of getting into a scholarly argument on whether organic farming or fertilizer-based farming is good, what is important to note is that for a large proportion of the population, food in itself is very scarce and hence, fertilizer production is very important for more than 50 percent of our population in need of food. This indicates that India's fertilizer sector is less labour and capital intensive in relation to energy and materials. main objective of the study is To find out the export performance of Fertilizer products of India during the period of 2005-2019. The study makes use of statistical techniques such as Percentage analysis, Growth analysis, Standard Deviation, CAGR and CV in analyzing the data for finding the result.

Keywords: Fertilizer, Production, Export and India

INTRODUCTION

Fertilizers are widely used in agriculture to maintain soil fertility and to increase crop yields. Fertilizer is any organic or inorganic material of natural or synthetic origin that is applied through soil or leaves to the plants to supply nutrients essential to the growth and productivity. Before the Green Revolution, natural and traditional farming methods were adopted for

A STUDY ON EXPORT OF LIVE ANIMALS IN INDIA

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ABSTRACT

Animal Products plays an important role in the socio- economic life of India. It is a rich source of high quality of animal products such as milk, meat and eggs. The demand for Indian buffalo meat in international market has sparked a sudden increase in the meat exports. Buffalo meat dominated the exports with a contribution of over 89.08% in total Animal Products export from India. The main markets for Indian buffalo meat and other animal products are Vietnam Social Republic, Malaysia, Egypt Arab Republic, Iraq and Saudi Arabia. However given the size of Indian animal, even small changes in its trade have a potentially large impact on world markets.main objective of the study is To find out the export performance of live animalproducts of India during the period of 2005-2019. The study makes use of statistical techniques such as Percentage analysis, Growth analysis, Standard Deviation, CAGR and CV in analyzing the data for finding the result.

Keywords: Live Animal, Production, Export and India

INTRODUCTION

Animal Products plays an important role in the socio- economic life of India. It is a rich source of high quality of animal products such as milk, meat and eggs. India has emerged as the largest producer of milk with 20.17 percent share in total milk production in the world. India accounts for about 5.65 percent of the global egg production and also the largest population of

A STUDY ON HR PRACTICES WITH SPECIAL REFERENCE TO ROYAL CLASSIC MILLS PVT LTD, COIMBATORE

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ABSTARCT

Human resource management is the strategic and coherent approach to the management of an organization's that most valued assets are the people working there who individually and collectively contribute to the achievement of the objectives of the business. The terms "human resource management" and "human resources" (HR) have largely replaced the term "personnel management" as a description of the processes involved in managing people in organizations. Convenience sampling was used to determine the sample size for the respondents. Sample of 84 respondents were taken into study, and their data were collected. Samples for the purpose of the study are selected systematically. The study makes use of statistical techniques such as Simple Percentage analysis, Chi-square and Weighted average rank method Test in analyzing the data for finding the result In simple sense, HRM means employing people, developing their capacities, utilizing, maintaining and compensating their services in tune with the job and organizational requirement. Human resource Management is a process of bringing people and organizations together so that the goals of each are met. It tries to secure the best from people by winning their wholehearted cooperation. In short, it may be defined as the art of procuring, developing and maintaining competent workforce to achieve the goals of an organization in an effective and efficient manner.

Keywords: Human resource management, spinning mills.

A STUDY ON EXPORT PERFORMANCE OF SILK

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ABSTRACT

India is the second largest producer of silk, contributing to about 18 per cent to the world production. What is however, more noteworthy is the fact that India's requirement of raw silk is much higher than its current production at present. India is the second largest producer of silk, contributing to about 18 per cent to the world production. What is however, more noteworthy is the fact that India's requirement of raw silk is much higher than its current production. The analysis of tool used in the study is growth rate, percentage. The study throws light on individual marketing of silk and research activities of silk board on basis of which any policy change can be contemplated by the silk board. The study might be useful to silk producers to understand certain priority factors, which are instrumental for better price realization.

INTRODUCTION

Silk industry has a distinctive position in India, that plays a significant role in textile industry and export. India is the 2nd largest producer of silk in the world with 23060 metric tonnes and also the largest consumer of silk in the world and contributes 15 per cent of the total world raw silk production. Geographically, Asia is the main producer of silk in the world and manufactures over 95 per cent of the total global output. Although there are over 40 countries on the world map of that produce silk, bulk of it is produced in China and India, followed by Japan, Brazil and Korea. China is the leading supplier of silk to the world with an annual production of , out of which the

A STUDY ON EXPORT PERFORMANCE OF COPPER IN INDIA

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ABSTRACT

Copper Products important role in the socio- economic life of India. The value of India's copper products exports declined 70% in the year ended in March 2019 primarily due to the shutdown of Vedanta Ltd.'s copper smelter, an industry Exports of copper products. Copper is traded all around the world. The data provided on the export analysis shows that there are almost 198 countries and territories, which actively import Copper from India. main objective of the study is To find out the export performance of agriculture and processed food products of India during the period of 2005-2019. The study makes use of statistical techniques such as Percentage analysis, Growth analysis, Standard Deviation, CAGR and CV in analyzing the data for finding the result.

Keywords: copper, Production, Export and India

INTRODUCTION

India ranks 5th in global refined copper production and during FY18 refined copper production grew by 6.0% y-o-y compared with 0.9% last year. Increase in production can be attributed to better operational efficiencies resulting in better capacity utilization. Demand for refined copper has risen by 0.9% from its previous year's de-growth on account of use of copper in building and construction activities and in the electrical wiring segment. Development of the SMART cities, metro projects and the construction of renewable energy have augmented the use



MANAGING EMPLOYEE PERFORMANCE APPRAISAL IN BANKING SECTOR Dr. G. Vignesh* & C. Princy**

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Cite This Article: Dr. G. Vignesh & C. Princy, "Managing Employee Performance Appraisal in Banking Sector", International Journal of Computational Research and Development, Volume 7, Issue 1, Page Number 39-41, 2022.

Abstract:

Human resource managers have traditionally accorded employee performance as a prime focus. As a result, several performance appraisal techniques have been devised to help establish employee performance. In contemporary times, performance appraisals have been extended beyond rating the employee's performance to aspects such as motivation. Accordingly, this study sought to investigate the effectiveness of performance appraisal systems and their effect on employee motivation. The study's primary objectives pertained to establishing the moderating role of performance appraisal as a motivation tool and potential challenges. The study findings show significant positive outcomes when the organization uses performance appraisal as a motivation tool. Further, the study finds that more than one appraisal technique helps yield greater satisfaction and, consequently, higher motivational levels. The specific aspects of performance appraisal systems (PAS) that help improve motivation include linking performance to rewards, using the PAS to help set objectives and benchmarks, and using PA to help identify employees' strengths and weaknesses.

Key Words: Performance, Appraisal, Motivation, Employee.

Introduction:

Performance Appraisal is a formal system that evaluates a worker's performance quality. The appraisal measures skills and accomplishments with reasonable accuracy and uniformity. It provides a way to help identify performance enhancement areas and help promote professional growth. The employee is subjected to a periodic appraisal of their performance; an effective performance appraisal brings rationality to management. It is a continuous process where managers and employees work together to plan, monitor, and review an employee's work objective or goals or their overall contribution to the organization.

Objective of the Study:

- To identify the performance appraisal process
- To portray the outcome that influencing employee motivation
- To gauge the satisfaction of employees with the current appraisal process

Methodology:

The research design adopted for the study is Exploratory and Conclusive. A Questionnaire with set of 40 questions is designed to capture employees' raw data and responses. At many instances, the questionnaire was re-dictated to the HR department before approaching the individual employees in the sample group. Nearly 90 random employees in managerial positions were chosen as a sample for data collection in the study. Various statistical measures like the Percentage Method & Weighted Average Method have been used to analyze and interpret the collected data.

Area of Data Collection:

The area chosen for study in HDFC bank is the different bank branches in and around the city of Coimbatore, Tamil Nadu. Data was collected from the employees are selected at random as a sample from these locations.

Tools Involved:

Quantitative data obtained from the questionnaire responses were analyzed through the use of statistical packages, namely

- Simple Percentage Analysis
- Chi-Square test

Sampling:

The simple random sampling technique made it possible for respondents of varying ages, gender, experience, and other demographics to participate in the study. The reason for choosing this sampling technique is to achieve an unbiased, conclusive, and more representative outcome at the end of the study.

Type of Data Collection:

In line with the mixed methods research adopted in the current study, a questionnaire was used as the primary data collection instrument. The questionnaire was targeted toward HDFC Bank's employees. It was divided into different sections. The researcher (myself) posed several questions about the employees' demographic information. Closed-ended questions were used to determine the attitude and opinions on various



MANAGEMENT OF SUPPLY CHAIN IN FOUNDRY INDUSTRY Dr. G. Vignesh* & D. Pavitra**

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Cite This Article: Dr. G. Vignesh & D. Pavitra, "Management of Supply Chain in Foundry Industry", International Journal of Computational Research and Development, Volume 7, Issue 1, Page Number 54-56, 2022.

Abstract:

The primary customer for castings in the world is the automotive industry, an industry that prides itself on well managed supply chains management (SCM). This Project investigates on the supply chain management of a medium scale foundry and how it works. Patterns, capital equipment, consumables all are needed to make the product which together makes the supply chain. SCM plays an essential role in the industry development, market survival, rate of production and the vibrant communication among the suppliers and customers. It has been met with increased recognition during the last decade both by academicians as well as practitioners. In today's highly competitive marketplace a successful winner is one who has the ability to satisfy the end customer requirement. Foundry which was selected for this purpose is a medium ferrous foundry setup located in Pollachi. Coimbatore southern part of India which is established in the year 1996, committed to high technology from the very start, produces grey iron from low tensile to high tensile strength grades, Ductile Iron -Pearlitic Ductile Iron to various ranges of Ferrite Ductile Irons. Foundry also specializes in the production range of automobile items like brake drums, Brackets, Transmission Hubs, flywheels, Manifolds, gear box housings, castings for tractor application, valve body assembly castings, motor and pump castings and compressor part castings.

Key Words: Supply chain management, Foundry, Strength Grades, Compressor

Introduction:

Supply chain management is the management of the flow of goods and services and includes all processes that transform raw materials into final products. It involves the active streamlining of a business's supply-side activities to maximize customer value and gain a competitive advantage in the marketplaceSupply chain management (SCM) represents an effort by suppliers to develop and implement supply chains that are as efficient and economical as possible. Supply chains cover everything from production to product development to the information systems needed to direct these undertakings

Idea of the Study:

- From this study Supply chain management of foundry for the past ten years.SCM is ultimately turns to be a key factor in market sustainability as it has a direct impact on the product produced, organization's profit percentage and customer relationship.
- The scope of this project involves Plus and minus of the practiced SCM will be the net output of this study from which new suggestions can be provided.

Objective of the Study:

- To study about raw materials purchased during 2011 to 2021
- To examine on total quantities product purchased
- To do the trend projection product purchased

Methodology:

Research Design:

Research design is the detailed plan of conducting a search study quantitative research method has been used in this study

Sampling Area:

The data has been collected from foundry industry in Pollachi Taluk

Sample Technique:

The data sample were gathered by direct interaction made with the executives of the organization, supportive documents provided by them and observation

Limitation of Study:

- Limited data's where only analysed due to limited time availability. •
- Only major raw material and customers were covered due to vast range of materials and processes.
- Certain data's where kept confidential by the management.
- The data collected for the research is fully on primary data given by the department executives

Tools and Techniques Involved:

- Simple percentage analysis
- Chi square test

Period of Study:

The period of the study covers from March 2022 to April 2022.



PROBLEMS AND PROSPECTS OF BUYING PRODUCTS THROUGH ONLINE

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* Associate Professor & Head – Commerce IB, NGM College, Coimbatore, Tamilnadu ** PG Scholar - Commerce IB, NGM College, Coimbatore, Tamilnadu

Cite This Article: Dr. G. Vignesh & P. Bruntha, "Problems and Prospects of Buying Products through Online", International Journal of Computational Research and Development, Volume 7, Issue 1, Page Number 57-62, 2022.

Abstract:

Online shopping that glorious invention which allows people to buy things from the comfort of their homes. No more travelling to multiple stores to find the right product; no more having to deal with over-enthusiastic sales persons; no more standing in long lines at the checkout counter. The e-commerce boom has certainly changed the way we shop for the better. But, like everything else, the world of online shopping is not all roses. Despite all the efforts of e-commerce companies to alleviate them, there are a few problems that customers still have to face while shopping online.

Key Words: Online Shopping & Shopping

Introduction:

Online shopping that glorious invention which allows people to buy things from the comfort of their homes. No more travelling to multiple stores to find the right product; no more having to deal with over-enthusiastic sales persons; no more standing in long lines at the checkout counter. The e-commerce boom has certainly changed the way we shop for the better. But, like everything else, the world of online shopping is not all roses. Despite all the efforts of e-commerce companies to alleviate them, there are a few problems that customers still have to face while shopping online.

Objective of the Study:

- To study the factors reframing shopping on the internets and features necessary for an online shopping site
- Finding the problems and give suggestions

Scope of the Study:

From this study, It was found why customers hesitate to make decision for shopping online. I analyse the various problems faced by the customers on online shopping. Find the reasons and gave the suggestions for the problems faced by the customers. Also find out the ways to overcome the problems faced by customers. Found, what are the fraud activities done on online shopping.

Methodology:

Research Design:

Research Design Research design is the detailed plan of conducting a research study. Descriptive research design has been used in the study.

Descriptive Research Design:

Descriptive Research Design Descriptive analysis attempts to explain systematically a trend, and provides data concerning attitudes and preferences towards a problem.

Sample Area:

The data has been collected from POLLACHI the city is have urban and rural area. But my study was conducted by middle of the city

Sample Technique:

Sampling technique is the choice of a subset of people from among a huge population to estimate characteristics of the 80 respondents. The focused to collection people who going to work.

Limitations of the Study:

The study has got certain limitation of which a few are listed below:

- The study is confined to selected Pollachi city only.
- The study is based upon the consumer behaviours and problems of online shopping.
- The data collected for the research is fully on primary data given by the respondents.

Tools and Techniques Used:

- Simple percentage analysis
- Chi-Square Test

Analysis of Data:

- Data so collected was tabulated suitably for the purpose of analysis
- Appropriate statistical tool like data analysis, tabulations, and other tools were used for analysis and interpretation of data



PERFORMANCE APPRAISAL MANAGEMENT - A MOTIVATION TO EMPLOYEE

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Cite This Article: Dr. G. Vignesh & C. Princy, "Performance Appraisal Management - A Motivation to Employee", International Journal of Scientific Research and Modern Education, Volume 7, Issue 1, Page Number 74-77, 2022.

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Abstract:

Human resource managers have traditionally accorded employee performance as a prime focus. As a result, several performance appraisal techniques have been devised to help establish employee performance. In contemporary times, performance appraisals have been extended beyond rating the employee's performance to aspects such as motivation. Accordingly, this study sought to investigate the effectiveness of performance appraisal systems and their effect on employee motivation. The study's primary objectives pertained to establishing the moderating role of performance appraisal as a motivation tool and potential challenges. The study findings show significant positive outcomes when the organization uses performance appraisal as a motivation tool. Further, the study finds that more than one appraisal technique helps yield greater satisfaction and, consequently, higher motivational levels. The specific aspects of performance appraisal systems (PAS) that help improve motivation include linking performance to rewards, using the PAS to help set objectives and benchmarks, and using PA to help identify employees' strengths and weaknesses.

Key Words: Performance, Appraisal, Motivation, Employee.

Introduction:

Performance appraisal is a widely discussed concept in the field of performance management. The importance of performance appraisal systems partly arises from the nature of the current business environment, which is marked by the need to achieve organizational goals and remain relevant in intensely competitive markets through superior employee performance. Within this context, various studies suggest that organizations can hardly control the behaviour of their employees. The organizations can however control how employees perform their jobs. In addition, performance management research shows that a significant number of employees tend to have the desire to serve their jobs well as part of their individual goals and a demonstration of loyalty towards the organization. Arguably, the key to ensuring that employees perform well lies in the ability to provide them with the proper working environment. Such an environment generally includes fair treatment, support, effective communication, and collaboration. According to experts, these qualities are created by an effective performance appraisal system.

Objective of the Study:

• To establish and explore the link between performance appraisal and employee motivation.

• To analyze the types of performance appraisal, motivation, and their effectiveness

Scope of the Study:

- To analyze the Performances Appraisal procedures (PA)
- To study the effectiveness of Performances Appraisal
- To know employee opinions about Performances Appraisal
- To understand the transformation of performance appraisal from traditional to modern
- To get an insight into the relative importance of performance appraisal in an organization

Methodology of the Study:

The research design adopted for the study is Explorative & Conclusive research design. A Questionnaire with 40 questions was designed to capture employees' raw data and responses. Nearly 90 random employees in managerial positions were chosen as a sample for data collection in the study.

Tools Involved:

Quantitative data obtained from the questionnaire responses were analyzed through the use of statistical packages, namely

- Simple Percentage analysis
- Chi-Square test



EXPLORATORY STUDY ON ISSUES FACED BY CUSTOMER (VIA ONLINE BUYING)

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Cite This Article: Dr. G. Vignesh & P. Bruntha, "Exploratory Study on Issues Faced by Customer (Via Online Buying)", International Journal of Scientific Research and Modern Education, Volume 7, Issue 1, Page Number 94-98, 2022.

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Abstract:

Online shopping is a form of electronic commerce which allows consumers to directly buy goods or services from a seller over the Internet using a web browser. Online shopping has grown in popularity over the years, mainly because people find it convenient and easy to bargain shop from the comfort of their home or office. One of the most enticing factor about online shopping, particularly during a holiday season, is it alternates the need to wait in long lines or search from store to store for a particular item. The Internet's largest and most meaningful impact may very well be on the way consumers shop for everything from gifts, gadgets and groceries to clothing and cars. Online shopping is used as a medium for communication and electronic commerce, it is to increase or improve in value, quality and attractiveness of delivering customer benefits and better satisfaction, that is why online shopping is more convenience and day by day increasing its popularity. But many problems are facing the customer while online purchase, in this current study issue faced by the customer while buying the product through online site.

Key Words: Online Shopping and Problems.

Introduction and Methodology:

Online shopping is a form of electronic commerce which allows consumers to directly buy goods or services from a seller over the Internet using a web browser. Online shopping has grown in popularity over the years, mainly because people find it convenient and easy to bargain shop from the comfort of their home or office. One of the most enticing factor about online shopping, particularly during a holiday season, is it alternates the need to wait in long lines or search from store to store for a particular item. The Internet's largest and most meaningful impact may very well be on the way consumers shop for everything from gifts, gadgets and groceries to clothing and cars. Online shopping is used as a medium for communication and electronic commerce, it is to increase or improve in value, quality and attractiveness of delivering customer benefits and better satisfaction, that is why online shopping is more convenience and day by day increasing its popularity.

Objective of the Study:

- To study about customer facing the problems while shopping online.
- Analysing about customer agreement level of online shopping

Scope of the Study:

From this study, I was found why customers hesitate to make decision for shopping online. I analyse the various problems faced by the customers on online shopping. Find the reasons and gave the suggestions for the problems faced by the customers. Also find out the ways to overcome the problems faced by customers. Found, what are the fraud activities done on online shopping.

Methodology:

Research Design:

Research Design Research design is the detailed plan of conducting a research study. Descriptive research design has been used in the study.

Descriptive Research Design:

Descriptive Research Design Descriptive analysis attempts to explain systematically a trend, and provides data concerning attitudes and preferences towards a problem.

Sample Area:

The data has been collected from POLLACHI the city is have urban and rural area. But my study was conducted by middle of the city

Sample Technique:

Sampling technique is the choice of a subset of people from among a huge population to estimate characteristics of the 80 respondents. The focused to collection people who going to work.

Limitations of the Study:

The study has got certain limitation of which a few are listed below:

• The study is confined to selected Pollachi city only.



PRODUCTION AND SALES FORECAST OF FOUNDRY INDUSTRY Dr. G. Vignesh* & D. Pavitra**

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Cite This Article: Dr. G. Vignesh & D. Pavitra, "Production and Sales Forecast of Foundry

Industry", International Journal of Scientific Research and Modern Education, Volume 7, Issue 1, Page Number 111-114, 2022.

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Abstract:

The primary customer for castings in the world is the automotive industry, an industry that prides itself on well managed supply chains management (SCM). This Project investigates on the supply chain management of a medium scale foundry and how it works. Patterns, capital equipment, consumables all are needed to make the product which together makes the supply chain. SCM plays an essential role in the industry development, market survival, rate of production and the vibrant communication among the suppliers and customers. It has been met with increased recognition during the last decade both by academicians as well as practitioners.

In today's highly competitive marketplace a successful winner is one who has the ability to satisfy the end customer requirement. Foundry which was selected for this purpose is a medium ferrous foundry setup located in Pollachi, Coimbatore southern part of India which is established in the year 1996, committed to high technology from the very start, produces grey iron from low tensile to high tensile strength grades, Ductile Iron - Pearlitic Ductile Iron to various ranges of Ferrite Ductile Irons. Foundry also specializes in the production range of automobile items like brake drums, Brackets, Transmission Hubs, flywheels, Manifolds, gear box housings, castings for tractor application, valve body assembly castings, motor and pump castings and compressor part castings.

Introduction:

Supply chain management is the management of the flow of goods and services and includes all processes that transform raw materials into final products. It involves the active streamlining of a business's supply-side activities to maximize customer value and gain a competitive advantage in the marketplace. Supply chain management (SCM) represents an effort by suppliers to develop and implement supply chains that are as efficient and economical as possible. Supply chains cover everything from production to product development to the information systems needed to direct these undertakings

Objectives of the Study:

- To portray the product purchased between 2011 to 2021
- To examine the total quantities product purchased
- To analyse the total sales between 2011 to 2021

Scope of the Study:

- From this study Supply chain management of foundry for the past ten years .SCM ultimately turns to be a key factor in market sustainability as it has a direct impact on the product produced, organization's profit percentage and customer relationship.
- The scope of this project involves Plus and minus of the practiced SCM will be the net output of this study from which new suggestions can be provided.

Methodology:

- Research Design: Research design is the detailed plan of conducting a search study. Quantitative research method has been used in this study
- Sampling: The data has been collected from foundry industry in Coimbatore District. The data sample were gathered by direct interaction made with the executives of the organization, supportive documents provided by them and observation

Tools and Techniques Involved:

- Simple percentage analysis
- Chi Square Test

Period of Study:

The period of the study covers from March 2022 to May 2022

Type of Data Collection:

The Method of Sample collection plays a major role in defining the outcomes of the project done.In order to contract the report I have collected necessary information form two resources



COMPARISON STUDY ON DIGITAL AND TRADITIONAL MARKET

Dr. N. Bhuvanesh Kumar* & N. Sabareeswari** * Assistant Professor, PG Department of Commerce with International Business, Nallamuthu Gounder Mahalingam College, Pollachi, Coimbatore, Tamilnadu ** PG Department of Commerce with International Business, Nallamuthu Gounder

Mahalingam College, Pollachi, Coimbatore, Tamilnadu

Cite This Article: Dr. N. Bhuvanesh Kumar & N. Sabareeswari, "Comparison Study on Digital and Traditional Market", International Journal of Computational Research and Development, Volume 7, Issue 1, Page Number 45-47, 2022.

Abstract:

Now a days the traditional users less than to compare digital market users, the reason the customers wants more collection of products and they have no time to buy the products in traditional market. So they choose an option to move the digital market, and customers to buy anything in this world just a one click and to get immediate, most of them choosing a digital market, and also they are to buy a product in traditional market. **Key Words:** Digital Market, Traditional Market, Shopping

Introduction:

This study about the what are the reason to buy the products in traditional and digital market, While making any purchase decision consumer should know the medium to purchase whether digital market or the traditional market. Consumer should decide the channel for them which can best suit to their need and wants and which can satisfy them. In this competitive world how, consumer can decide the particular medium for their purchase of goods is very important to understand in a managerial point of view. Said that the internet shopping is the third best and most popular activity over internet after digital market next comes the e-mail using, instant messaging and web browsing. These are even more important than watching or getting entertain by the internet or getting any information or news, this are the two very common thought which comes to the people's mind when considering the internet users do when they are online. And this study about traditional market Vs digital market and what are the reasons customers to choose the traditional and digital markets.

Statement of the Problem:

Digital and traditional market users why they want to buy a products in traditional and digital market and now a days most of them to move the digital market some other customers they want to buy a products in both traditional and digital markets and the customers are satisfied or not, what are the products buy in digital and traditional market.

Objectives of the Study:

To investigate, which reason affects traditional and digital shopping?

Scope of Study:

The study analyze if there is any association between the literacy of the consumers and the type of markets they choose.

Research Methodology:

Research Design:

The Primary data would be collected keeping in view the research objectives. Structured questionnaires have been collected from the respondents of public. The study involves collection of primary data through structured questionnaire from public and analysis of the data done with descriptive application of various statistical tools.

Method of Data Collection:

Primary data were collected by using well-structured questionnaires prepared by the researcher. It was sample collected. Overview the magazines and journals for updated articles which will help to arrive review of the literature

Sample Size:

Random of Data collected from out of 71 respondents, the data are to collected to variable methods, questionnaires, interview methods to collect the data about the study of traditional and digital market. The size of sample is 71 respondents.

Tools of Data Collection:

Simple Percentage Method:

Review of Literature:

The review of study is traditional market and digital market and its compare Traditional marketing refers to any type of marketing that isn't online. This means print, broadcast, direct mail, phone, and outdoor advertising like billboards. From newspapers to radio, this method of marketing helps reach targeted audiences. Image source: Ads of the World .The term digital marketing refers to the use of digital channels to market products and services in order to reach consumers. This type of marketing involves the use of websites, mobile



TOP 15 COMMODITIES EXPORT PERFORMANCE IN INDIA Dr. N. Bhuvanesh Kumar* & A. Mohammed Imran**

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Cite This Article: Dr. N. Bhuvanesh Kumar & A. Mohammed Imran, "Top 15 Commodities Export Performance in India", International Journal of Computational Research and Development, Volume 7, Issue 1, Page Number 48-50, 2022.

Abstract:

Exports have played an increasingly important role in India's economic growth in the last two decades. This paper analyses the performance of India's exports and the various economic factors which have contributed to its growth. The study about which commodity will highly export from India to other countries. **Key Words:** Fresh Fruits and Vegetables Products, Export and Data

Introduction:

Export is playing a major role of development and growth of the countries. Exports are goods and services that are produced in one country and sold to buyers in another. Exports are incredibly important to modern economies because they offer people and firms many more markets for their goods. One of the core functions of diplomacy and foreign policy between governments is to foster economic trade, encouraging exports and imports for the benefit of all trading parties. India's diverse climate ensures availability of all varieties of fresh fruits & vegetables. It ranks second in fruits and vegetables production in the world, after China. As per National Horticulture Database (Second Advance Estimates) published by National Horticulture Board, during 2019-20, India produced 99.07 million metric tons of fruits and 191.77 million metric tons of vegetables. The area under cultivation of fruits stood at 6.66 million hectares while vegetables were cultivated at 10.35 million hectares.

Problem Statement:

- The potential for cultivating fruits and vegetables from domestic and export market is high.
- Despite the being the healthy demand for Indian fruits and vegetables abroad.
- The country faces the serious problems with finding exportable quality fruits and vegetables in sufficient amount.

Objectives of the Study:

- To assess the exporting details of fresh fruits and vegetables to the top 10 countries in exports.
- To provide necessary suggestion based on the findings of the study.

Scope of the Study:

The scope of the project is involved the export performance Fresh Fruits and Vegetables the export performance of Indian Fresh Fruits and Vegetables products is affected by the high demand. The study also gives growth rate and trend percentage of the export of Fresh Fruits and Vegetables goods year wise and also country wise. The study provides suggestion to the Fresh Fruits and Vegetables products exporting industries to improve their performance.

Research Methodology:

Secondary Data:

Secondary data the secondary data is collected to supplement the primary data. The annual reports of sample units, publication of Fresh Fruits and Vegetables products in the website of India Export Statistics-APEDA and industries, bulletins working and occasional papers of foreign trade preference analysis were used as important sources of secondary data for the study.

Limitations of the Study:

- The analysis made only by considering 12 Fresh Fruits and Vegetables products and 10 major countries.
- Time constraint is one of the limitations.

Period of Study:

The research data is collected in 12 financial years. That year is 2010-11 to 2021-22.

Review of Literature:

Mathor and Sagar (2015) state that the exports are increasing at a decreasing rate but the imports are increasing at an increasing rate. Trade deficit increased very sharply from 2004-05 to 2009- 10. The composition of India & #39s foreign trades has undergone substantial changes, particularly, after the liberalization and globalization. Our major exports now includes manufacturing goods such as Engineering Goods, Petroleum Products, Chemicals and allied Products, Gems and Jewelries, Textiles, Electronic Goods, etc. India's Exports of Services Important: Since data below is for latest time period hence data above too should be of same period so as to maintain consistency. It is a remarkable achievement that we have transformed



TOP 15 COMMODITIES EXPORT PERFORMANCE IN INDIA Dr. N. Bhuvanesh Kumar* & M. Dinesh**

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Cite This Article: Dr. N. Bhuvanesh Kumar & M. Dinesh, "Top 15 Commodities Export Performance in India", International Journal of Computational Research and Development, Volume 7, Issue 1, Page Number 51-53, 2022.

Abstract:

Exports have played an increasingly important role in India's economic growth in the last two decades. This paper analyses the performance of India's exports and the various economic factors which have contributed to its growth. The study about which commodity will highly export from India to other countries. **Key Words:** Export, Commodity, Trend Analysis

Introduction:

Export is playing a major role of development and growth of the countries. Exports are Goods and services that are produced in one country and sold to buyers in another. Exports Are incredibly important to modern economies because they offer people and firms many more markets for their goods. India's major exports are included in petroleum products and iron and steel products. Exports In 2020, India exported \$25.3B in Refined Petroleum, making it the 5th largest exporter of Refined Petroleum in the world. At the same year, Refined Petroleum was the 1st most exported product in India. Exports of Iron & Steel in India averaged 4397.14 USD Million from 1996 until 2020, reaching an all-time high of 11244.72 USD Million in 2017 and a record low of 662.18 USD Million in 1998.

Statement of the Problem:

India is a leading exporter of many products. Export and import in India develops day by day. There is the problem of overall exports goods when it requires large capital investment which a developing country like India cannot afford. Some products that occupy the first 15 places in a year and those products will not come in the same 15 places next year. Because that products will not samely perform for the previous year. The reasons for poor quality image, high costs, unreliability, infrastructure bottlenecks, inadequacy of trade information system, supply problems, faceless presence, uncertainties, procedural complexities and institutional rigidities, etc.

Objectives of the Study:

The research aims at enriching the knowledge understanding role of export performance of the top major commodities. The following are the objective of the study.

- To study the country wise export performance of top major commodities.
- To study the concept and theories of exports in India.

Scope of the Study:

The objective of this project is to cover the export performance of the top 15 products from India. The export performance of India's top 15 products is affected by high competition. This study also gives growth rate and trend analysis of the top 15 commodities for the year by year wise and also country wise. The study gives information about the top 15 commodities export. The study provides suggestions to improve their performance. **Research Methodology:**

Secondary Data:

The secondary data is collected to supplement the primary data. The annual reports of sample units, Publications of top 15 commodities, in Ministry of Commerce. Bulletins working and Occasional Papers of foreign trade performance analysis (FTPA) were used as important sources of secondary data for the study. **Limitations of the Study:**

- The analysis is made only by considering top 15 commodities and 15 major countries.
- Time constraint is one of the limitations.

Period of Study:

The research data is collected in 12 financial years. That years is 2010-11 to 2021-22.

Review of Literature:

Mathor and Sagar (2015) state that the exports are increasing at a decreasing rate but the imports are increasing at an increasing rate. Trade deficit increased very sharply from 2004-05 to 2009-10. The composition of India's foreign trade has undergone substantial changes, particularly, after the liberalization and globalization. Our major exports now includes manufacturing goods such as Engineering Goods, Petroleum Products, Chemicals and allied Products, Gems and Jewelries, Textiles, Electronic Goods, etc. India's Exports of Services Important: Since data below is for latest time period hence data above too should be of same period so as to maintain consistency. It is a remarkable achievement that we have transformed ourselves from a



GLASS AND GLASS WARE EXPORT PERFORMANCE IN INDIA Dr. N. Bhuvanesh Kumar* & P. Sathrukana**

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Cite This Article: Dr. N. Bhuvanesh Kumar & P. Sathrukana, "Glass and Glass Ware Export Performance in India", International Journal of Computational Research and Development, Volume 7, Issue 1, Page Number 63-65, 2022.

Abstract:

Exports have played an increasingly important role in India's economic growth in the last two decades. This paper analyses the performance of India's exports and the various economic factors which have contributed to its growth. Since manufactured exports comprise a significant share of India's aggregate (merchandise) exports, the paper also provides an overview study on the export performance of various products in glass and glassware.

Key Words: Glass and Glassware, Export Data, Commodity Analysis Introduction:

Glass and Glassware is traded all around the world. The data provided on the export analysis shows that there are almost 99 countries and territories, which actively import Glass and Glassware from India. The combined value of total export is 82.3 USD million. Therefore, if any exporter wishes to export Glass and Glassware then Connect2India offers a complete guide on how to export Glass and Glassware from India. The following data contains everything from Glass and Glassware export analysis to export resources .The top five countries to export Glass and Glassware from India. From the perspective of the data on Glass and Glassware export, India's top 5 trade partners who import Glass and Glassware from Indian exporters are mentioned in the table, although the total export value of the top 5 countries is 79.56 USD million which is the 96.67% of the total export value of Glass and Glassware.

Statement of the Problem:

The glass industry faces a number of challenges continued price competition and growing labour shortages, lack of capacity and increasing pressure to innovate. The biggest challenges however is to reconcile all of this. However the solution is easy if you are open to fundamental challenges in the production process. With the conversion from a production line with individual processing stations to an integrated production line, this fundamental change can be implemented relatively easily. The further reduction of manual activities, progress in productivity and higher throughput, quality improvement and future security even in the age of Industry 4.0 - all this is part of such a solution and thus the answer to current and future challenges.

Objectives:

The research aims at enriching the knowledge understanding role of export performance of glass and glass ware. The following are the objective of the study.

- To study the country wise export performance of top major commodities.
- To provide necessary suggestion based on the findings of the study.

Scope of the Study:

The objective of this project is to cover the export performance of glass and glass ware from India. The export performance of India's glass and glass ware is affected by high competition. This study also gives growth rate and trend percentage of glass and glass ware for the year by year wise and also country wise. The study gives information about the glass and glass ware export. The study provides suggestions to improve their performance.

Research Methodology:

Secondary Data:

The secondary data is collected to supplement the primary data. The annual reports of sample units, Publications of Cotton products, in the website of Ministry of Commerce and Industries, Bulletins Working and Occasional Papers of EXIM Bank were used as important sources of secondary data for the study.

Limitations of the Study:

- The analysis is made only by considering glass and glass ware and 10 major countries.
- Time constraint is one of the limited.

Review of Literature:

J. M. L. Reis, J. L. V. Coelho, A. H. Monteiro, and H. S. Da Costa Mattos. The present work is concerned with the study of the damage behaviour of a composite material based on glass fibre reinforced polymer (GFRP). The main goal is to predict the rupture force using model equations that combine enough mathematical simplicity to allow their usage in engineering problems with the capability of describing a complex nonlinear mechanical behaviour.



AGRI AND ALLIED PRODUCTS EXPORT PERFORMANCE IN INDIA

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Cite This Article: Dr. N. Bhuvaneshkumar & K. Ponraj, "Agri and Allied Products Export Performance in India", International Journal of Computational Research and Development, Volume 7, Issue 1, Page Number 75-79, 2022.

Abstract:

Agricultural sector is the backbone of country. India's major export contribution on the hands of agriculture products. Major income for India had raised from the agricultural sector. Increases in agricultural products exports leads to develop the Indian economy. Agriculture's history was showing the culture of Indians. For development of industry, agriculture plays a major role of exporting crucial goods such as Sugar, jute, vegetable oil and so on. India's agriculture GDP had increased to 19.9 percentage. Main objective of the study to find out the major export performance of the agri and allied products of India during the period of 2009-2022. This study make use of statistical calculation such as percentage analysis, growth rate analysis, standard deviation, CAGR and AAGR in analysis the data finding the result.

Key Words: Agri & Allied Products, Export Data, Trend Analysis **Introduction:**

As per a report by World Trade Organization (WTO) on the trends in world agricultural trade in the past 25 years, India and Mexico with 3.1% and 3.4% share in global Agri exports, respectively, replaced New Zealand (9th) and Malaysia (7th) as the largest exporters across the globe. The United States of America (USA), which topped the list in 1995 with 22.2% share of world Agri export, was overtaken by the European Union (EU) in 2019 with 16.1% global Agri share. The USA's exports reduced to 13.8% in 2019 while Brazil maintained its ranking as the third-largest exporter by increasing its share from 4.8% in 1995 to 7.8% in 2019.

Agriculture continues to be the main stay of the District Faridkot and is known for the production of Cotton, Rice, Wheat, Pulses, Vegetables & fruit crops. Besides this, other agriculture allied activities includes area under horticulture and vegetable crops, dairy, floriculture, fishery and forestry. The important sectors consider include Agriculture, Horticulture, Animal husbandry, Fishery, Soil and water conservation, Poultry, dairy Farming, Agriculture Marketing, Milk-fed financial institute and social forestry. Despite all other options, dairy farming is the best choice of the farmers as subsidiary occupation.

India's agri-exports face certain constraints that arise from conflicting domestic policies relating to production, storage, distribution, food security, pricing concerns etc. Unwillingness to decide on basic minimum quantities for export makes Indian supply sources unreliable. Higher domestic prices in comparison to international prices of products of bulk exports like sugar, wheat, rice etc. make our exports commercially less competitive. Market intelligence and creating awareness in international market about quality of products need to be strengthened to boost agricultural exports.

Statement of the Problem:

India is a leading exporter of many products. Export and import in India develops day by day. In this case export of agri and allied products which plays an important role in the development of economy of our country. There is the problem of agricultural industry were had an issues in product scarcity as well as following reasons: 1. there had a problem of labor scarcity for the production of agricultural goods. 2. Finding Buyers of agricultural products is not an easy task. 3. There occurs a major issue for transportation of products from one place to another. 4. Major thing was pricing; the products of agricultural products. 6. Sometimes there occurs theft and fraudulent activities. 7. Not having a clear idea about government schemes then there occurs losses. 8. Demands of the people cannot be satisfied due to lack of agricultural land usage.9. Lack of implementing automated technologies for agri purpose. 10. Lack of warehouses for storage of agricultural products.

Objectives:

The research aims at entering the knowledge understanding role of export performance of agri and allied products. The following objective of the study.

- To assess the country wise performance of agri and allied products from India
- To analyse the theory of agri and allied products from India.

Scope of the Study:

The scope of the project is involved the export performance of agri and allied products in Indian. The export performance of Indian agricultural and its allied products is affected by the high demand. The study also



COSMETICS EXPORT PERFORMANCE IN INDIA

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Cite This Article: Dr. N. Bhuvanesh Kumar & J. Francelin Rose Mystica, "Cosmetics Export Performance in India", International Journal of Computational Research and Development, Volume 7, Issue 1, Page Number 80-84, 2022.

Abstract:

The Indian cosmetics market has seen major changes in terms of user perception and product availability over the past few years. There have been market shifts during this period and the past few years have seen the market take further momentum. The increasing market size is the direct result of the changing socioeconomic status of the Indian consumers, especially women. Higher paying jobs and increasing awareness of the western world and beauty trends there have served to change the tastes and customs of the middle class and higher strata of the society, with the result that a woman from such social strata now is more conscious of her appearance and is willing to spend extra cash on enhancing it further. The study makes use of statistical techniques such as Total, Average, Growth rate and Trend analysis.

Key Words: Cosmetics, Textile, Export

Introduction:

The cosmetic industry describes the industry that manufactures and distributes cosmetic products. These include color cosmetics, like foundation and mascara, skincare such as moisturizers and cleansers, haircare such as shampoos, conditioners and hair colors, and toiletries such as bubble bath and soap. The manufacturing industry is dominated by a small number of multinational corporations that originated in the early 20th century, but the distribution and sale of cosmetics is spread among a wide range of different businesses.

The largest cosmetic companies are Johnson & Johnson, L'Oréal Paris, Gillette, Neutrogena, Nivea and Cha Chane. The market volume of the cosmetics industry in Europe and the United States is about EUR €70b per year, according to a 2005 publication. The worldwide cosmetics and perfume industry currently generates an estimated annual turnover of US\$170 billion (according to Eurostaf - May 2007). Europe is the leading market, representing approximately €63 billion. The cosmetic industry worldwide seems to be continuously developing, now more than ever with the advent of the Internet companies. Many famous companies sell their cosmetic products online also, in countries in which they do not have representatives. The cosmetic industry in Asia is mainly dominated by regional cosmetic brands. Shiseido Co. LTD, A popular cosmetic brand based in Japan, has 82.1% of its sales in Asia. No other Western company in the top 10 match these kinds of regional sales. Furthermore, geographic dispersion of sales by Asian cosmetic companies in Asia accounted for 92.42% of sales, while geographic dispersion of assets of Asian cosmetic companies in Asia was 87.05%. Western cosmetic companies often have failed to gain footholds in various countries. Due to recent significant economic growth in many Asian markets, regulation pertaining to chemicals in cosmetic products has been lacking. SK-II. a cosmetic product owned by P&G, was found to contain banned heavy metals in China in 2006. Another study found that women who had recently moved to Vancouver, Canada from East and South Asia had higher levels of lead in their blood than South and East Asian immigrants who had been living in Canada for longer. One of sources of lead was determined to be some facial powders marketed in various regions of Asia.

The global cosmetics market size was valued at \$380.2 billion in 2019, and is projected to reach \$463.5 billion by 2027, registering a CAGR of 5.3% from 2021 to 2027. Presently, cosmetics have become an indispensable feature of modern lifestyle of individuals. In addition, growth in consciousness about external beauty along with individual's internal intellect has become one of the major driving factors for use of cosmetics in the global market. Presently, along with women, there is a rise in use of cosmetics among men in their daily routine, which complements growth of the global cosmetics market demand. Hence, such changing lifestyles, have led to growth of the global cosmetics market. Manufacturers are changing their product branding and advertising strategies to accelerate their sales across various countries. Innovative strategies such as new product launches with natural ingredients and appealing packaging have been adopted by manufacturing companies to increase sales of their cosmetics products. As cosmetics products, which are handy and easy to use while travelling or attending social meetings. Moreover, use of natural ingredients for manufacturing of cosmetics products, which does not have any adverse effect on skin, is a popular strategy of manufacturers to attract more customers. This also helps in increasing revenue of companies operating in this industry.

Statement of the Problem:

As is the case in the industry, cosmetics manufacturers may encounter medium-term problems in the supply of components for their products. Many top brands have factories in Asian countries where they could face difficulties both in keeping up with production and exporting goods. This scenario is giving cosmetic



FRESH FRUITS AND VEGETABLES PRODUCTS EXPORT PERFORMANCE IN INDIA

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Cite This Article: Dr. N. Bhuvanesh Kumar & A. Mohammed Imran, "Fresh Fruits and Vegetables Products Export Performance in India", International Journal of Scientific Research and Modern Education, Volume 7, Issue 1, Page Number 82-85, 2022.

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Abstract:

India is the second largest producer of fruits and vegetables in the world after China. Since 1991, the global export of fruits and vegetables has improved rapidly. The number of commodities as well as the number of varieties produced and traded have increased manifold during the past 30 years. There is an overall increase in the demand for fruits and vegetables for consumption in the fresh and processed form. Also there is a wide diversification in production pattern globally. In spite of being one of the largest producers of fruits and vegetables in the world, the export share of India is very low. The food processing industry in India is one of the largest in terms of production, consumption, export and growth prospects. However, only 2.2 percent of fruits and vegetables are processed in India against 83 percent in Malaysia, 30 percent in Thailand, 60-70 percent in United Kingdom and 70 percent Brazil. Therefore, the production of fruits and vegetables has been remarkable but its export share is very low / negligible and processing of fruits and vegetables is only 2.2 percent. **Key Words:** Fresh Fruits and Vegetables products, export and data

Introduction:

Export is play a major role of development and growth of the countries. Exports are goods and services that are produced in one country and sold to buyers in another. Exports are incredibly important to modern economies because they offer people and firms many more markets for their goods. One of the core functions of diplomacy and foreign policy between governments is to foster economic trade, encouraging exports and imports for the benefit of all trading parties. India's diverse climate ensures availability of all varieties of fresh fruits & vegetables. It ranks second in fruits and vegetables production in the world, after China. As per National Horticulture Database (Second Advance Estimates) published by National Horticulture Board, during 2019-20, India produced 99.07 million metric tons of fruits and 191.77 million metric tons of vegetables. The area under cultivation of fruits stood at 6.66 million hectares while vegetables were cultivated at 10.35 million hectares. The vast production base offers India tremendous opportunities for export. During 2020-21, India exported fruits and vegetables worth Rs. 9,940.95 crores/ 1,342.14 USD Millions which comprised of fruits worth Rs. 4,971.22 crores/ 674.53 USD Millions and vegetables worth Rs. 4,969.73 crores/ 667.61 USD Millions. The major destinations for Indian fruits and vegetables are Bangladesh, UAE, Netherland, Nepal, Malaysia, UK, Sri Lanka, Oman and Qatar. Though India's share in the global market is still nearly 1% only, there is increasing acceptance of horticulture produce from the country. This has occurred due to concurrent developments in the areas of state-of-the-art cold chain infrastructure and quality assurance measures. Apart from large investment pumped in by the private sector, public sector has also taken initiatives and with APEDA's assistance several Centers for Perishable Cargoes and integrated post-harvest handling facilities have been set up in the country. Capacity building initiatives at the farmers, processors and exporters' levels has also contributed towards this effort.

Problem Statement:

- The potential for cultivating fruits and vegetables from domestic and export market is high.
- Despite the being the healthy demand for Indian fruits and vegetables abroad.
- The country faces the serious problems with finding exportable quality fruits and vegetables in sufficient amount.

Objectives:

- To study about the export performances of Fresh Fruits and vegetables products from India.
- To provide necessary suggestion based on the findings of the study.

Scope of the Study:

The scope of the project is involved the export performance Fresh Fruits and Vegetables the export performance of Indian Fresh Fruits and Vegetables products is affected by the high demand. The study also gives growth rate and trend percentage of the export of Fresh Fruits and Vegetables goods year wise and also



AGRI AND ALLIED PRODUCTS EXPORT PERFORMANCE IN INDIA

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Cite This Article: Dr. N. Bhuvanesh Kumar & K. Ponraj, "Agri and Allied Products Export Performance in India", International Journal of Scientific Research and Modern Education, Volume 7, Issue 1, Page Number 86-90, 2022.

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Abstract:

Agricultural sector is the backbone of country. India's major export contribution on the hands of agriculture products. Major income for India had raised from the agricultural sector. Increases in agricultural products exports leads to develop the Indian economy. Agriculture's history were shows the culture of Indians. For development of industry, agriculture plays a major role of exporting crucial goods such as Sugar, jute, vegetable oil and so on. India's agriculture GDP had increased to 19.9 percentage. Main objective of the study to find out the major export performance of the agri and allied products of India during the period of 2009-2022. This study make use of statistical calculation such as percentage analysis, growth rate analysis, standard deviation, CAGR and AAGR in analysis the data finding the result.

Key Words: Agri and Allied Products, Export Data, Growth Rate Analysis **Introduction:**

Trade plays a crucial role in providing livelihoods for farmers and people employed along the food supply chain. It also contributes to reducing food insecurity across the globe and provides greater choice in consumer goods. Trade in agro-food products has Grown strongly over the last two decades, reaching almost 7% in real terms annually between 2001 and 2019. But agro-food trade isn't just increasing, it's becoming 'global'. A growing share of agro-food trade is taking place in global value chains (GVCs) – agricultural and food processing value chains that are spread over several countries – linking agro-food sectors and other sectors of the economy from across the world.

As per a report by World Trade Organization (WTO) on the trends in world agricultural trade in the past 25 years, India and Mexico with 3.1% and 3.4% share in global Agri exports, respectively, replaced New Zealand (9th) and Malaysia (7th) as the largest exporters across the globe. The United States of America (USA), which topped the list in 1995 with 22.2% share of world Agri export, was overtaken by the European Union (EU) in 2019 with 16.1% global Agri share. The USA's exports reduced to 13.8% in 2019 while Brazil maintained its ranking as the third-largest exporter by increasing its share from 4.8% in 1995 to 7.8% in 2019.

In 2019, India with a lead of 33% overtook Thailand (20%) to top the list, while Vietnam (12%) overtook the US and climbed to the third spot. The top 10 exporters accounted for more than 96% of exports in both 1995 and 2019.Further, India is also the third-largest cotton exporter (7.6%), and the fourth-largest importer (10%) in 2019. In the largest traded Agri product, soya beans, India (0.1%) has a meagre share, but was ranked ninth in the world. In the "meat and edible meat offal" category, India secured 8th rank in the world with a global share of 4%.

India's share of foreign value-added content in its Agri exports clocked 3.8% share primarily due to high tariffs on Agri imports to boost the domestic markets and local farmers. Agriculture continues to be the main stay of the District Faridkot and is known for the production of Cotton, Rice, Wheat, Pulses, Vegetables & fruit crops. Besides this, other agriculture allied activities includes area under horticulture and vegetable crops, dairy, floriculture, fishery and forestry. The important sectors consider include Agriculture, Horticulture, Animal husbandry, Fishery, Soil and water conservation, Poultry, dairy Farming, Agriculture Marketing, Milk-fed financial institute and Social forestry. Despite all other options, dairy farming is the best choice of the farmers as subsidiary occupation.

Agriculture plays a vital role in India's economy. 54.6% of the total workforce is engaged in agricultural and allied sector activities (Census 2011) and accounts for 17.8% of the country's Gross Value Added (GVA) for the year 2019-20 (at current prices). Given the importance of the agriculture sector, Government of India has taken several steps for its development in a sustainable manner. Steps have been taken to improve the income of farmers.

Further, to mitigate risk in the agriculture sector, a scheme "Pradhan Mantri Fasal Bima Yojana" (PMFBY) was also launched in 2016. Schemes such as Formation & promotion of 10,000 FPOs & the Agriculture Infrastructure Fund have also been launched recently to benefit the sector. India's agri-exports face certain constraints that arise from conflicting domestic policies relating to production, storage, distribution, food



COMPARISON STUDY OF DIGITAL AND TRADITIONAL MARKET

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Cite This Article: Dr. N. Bhuvanesh Kumar & N. Sabareeswari, "Comparison Study of Digital and Traditional Market", International Journal of Scientific Research and Modern Education, Volume 7, Issue 1, Page Number 91-93, 2022.

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Abstract:

In this competitive world how, consumer can decide the particular medium for their purchase of goods is very important to understand in a managerial point of view. Said that the internet shopping is the third best and most popular activity over internet after digital market next comes the e-mail using, instant messaging and web browsing.

These are even more important than watching or getting entertain by the internet or getting any information or news, this are the two very common thought which comes to the people's mind when considering the internet users do when they are online. And this study about traditional market Vs digital market.

Key Words: Digital Market, Traditional Market, Consumer, Internet

Introduction:

The increase in technology provides good opportunities to the seller to reach the customer in much faster, easier and in economic way. Digital market is emerging very fast in recent years. Now a day the internet holds the attention of retail market. Millions and millions of people shop online. On the other hand, the purchasing of product from traditional market is continuing since years.

Many customers go for purchasing offline so as to examine the product and hold the possession of the product just after the payment for the product. In this contemporary world customer's loyalty depends upon the consistent ability to deliver quality, value and satisfaction. Some go for offline shopping, some for online and many go for both kind of market. The focus of the study is on the consumer's choice to shop on digital and at the traditional stores at the information gaining period. However online shopping is easier for the people and less price than the traditional market.

Statement of the Problem:

This study about the digital market and traditional market the issues of this study to customers or consumers to face a much a problems in digital market and some problems in traditional market, most of the customers to face the problems in digital market its affected to the growth of the digital market now a day's most of them to choose the digital its most affected to the traditional market, and it may possible that very soon digital market can over take the traditional market.

Objectives of the Study:

- To compare customers perception towards traditional and digital market based on demographic variables. (Gender, Monthly Income, Age, Occupation, Marital Status)
- To analyzes of compare study of digital and traditional market

Scope of Study:

- To study the importance of traditional marketing and digital market
- To compare traditional marketing and digital market
- To analyze, if there is any significant relation between the age of consumers and the type of marketing they choose.

Research Methodology:

Research Design:

The Primary data would be collected keeping in view the research objectives. Structured questionnaires have been collected from the respondents of public. The study involves collection of primary data through structured questionnaire from public and analysis of the data done with descriptive application of various statistical tools.

Method of Data Collection:

Primary data were collected by using well-structured questionnaires prepared by the researcher. It was sample collected. Overview the magazines and journals for updated articles which will help to arrive review of the literature



TOP 15 COMMODITIES EXPORT PERFORMANCE IN INDIA Dr. N. Bhuvanesh Kumar* & M. Dinesh**

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Cite This Article: Dr. N. Bhuvanesh Kumar & M. Dinesh, "Top 15 Commodities Export Performance in India", International Journal of Scientific Research and Modern Education, Volume 7, Issue 1, Page Number 103-106, 2022.

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Abstract:

Exports have played an increasingly important role in India's economic growth in the last two decades. This paper analyses the performance of India's exports and the various economic factors which have contributed to its growth. Since manufactured exports comprise a significant share of India's aggregate (merchandise) exports, the paper also provides an overview of the export performance of top 15 commodities; namely, petroleum products, pearl precs semiprecs stones, RMG cotton include accessories, gold and other precious metal jewellery, iron and steel, products of iron and steel, drug formulations biological, motor vehicles/cars, organic chemicals, ship boat and floating struct, oil meals, manmade yarn, gold, marine products, electric machinery and equipment. Main objective of study is to analysis the export performance of top 15 commodities from India during the period of 2010-11 to 2021-22. The study makes use of statistical techniques such as percentage analysis, growth analysis, average, standard deviation, AAGR and CAGR in analysing the data for finding the result.

Key Words: Export, Commodity, Analysis

Introduction:

Export is play a major role of development and growth of the countries. Exports are goods and services that are produced in one country and sold to buyers in another. Exports are incredibly important to modern economies because they offer people and firms many more markets for their goods. One of the core functions of diplomacy and foreign policy between governments is to foster economic trade, encouraging exports and imports for the benefit of all trading parties. India's major exports included petroleum products, gems and jewellery, and drug formulations. Oil-based products and crude oil giants such as Hindustan Petroleum Corporation Limited, Bharat Petroleum, Reliance Petroleum, ONGC and et al have contributed largely to the export sector of India. Although the country is hugely dependent on oil imports, export of oil-based products has supported the economy to a large extent. The term 'jewellery' here includes gold, gemstones and similar materials. India consumes around 20 per cent of the global gold production and 75 per cent of that amount goes into making jewellery. The jewellery sector is also supported by banks and government policies so that the industry does not fall drastically. Around 30 per cent of Indian jewellery gets exported to the United States alone. Other such countries include Hong Kong, UAE, Singapore and Belgium.

There has been a 10.5 per cent increase in the export of heavy machinery from India. These include cars, pumps, heavy machines, building construction tools, agricultural equipment and so on. Before Independence, India used to depend on its import of iron and steel. But now, the country has gone through such an industrial growth that it has become the fourth largest steel producer in the world. Steel tycoons such as TISCO, IISCO, Bhilai Iron and Steel Centre, and Visveswaraya Iron And Steel Limited play a major role in the iron and steel export from India. India's export value changes in year by year. some years export values are increase at the same time some years export values are decrees. When it comes to manufacturing electronic equipment, India is still seen as an importing country.

However, the export part of this sector thrives silently yet largely. India has the third largest pool of electronic scientists and engineers and the domestic demand of electronic goods propels the industry to grow faster and stronger, making export all the more important. If you import more than you export, more money is leaving the country than is coming in through export sales. On the other hand, the more a country exports, the more domestic economic activity is occurring. More exports means more production, jobs and revenue. Exporting can be profitable for businesses of all sizes. On average, sales grow faster, more jobs are created, and employees earn more than in non-exporting firms. Competitive Advantage. The United States is known worldwide for high quality, innovative goods and services, customer service, and sound business practices. Exports help a nation grow. As a trading component, they assume importance in diplomatic and foreign policies. Countries export goods and services in which they have a competitive or comparative advantage. Governments encourage exports because they increase revenues, jobs, foreign currency reserves, and liquidity.



GLASS AND GLASS WAREEXPORT PERFORMANCE IN INDIA Dr. N. Bhuvanesh Kumar* & P. Sathrukana**

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Cite This Article: Dr. N. Bhuvanesh Kumar & P. Sathrukana, "Glass and Glass Ware Export Performance in India", International Journal of Scientific Research and Modern Education, Volume 7, Issue 1, Page Number 107-110, 2022.

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Abstract:

Exports have played an increasingly important role in India's economic growth in the last two decades. This paper analyses the performance of India's exports and the various economic factors which have contributed to its growth. Since manufactured exports comprise a significant share of India's aggregate (merchandise) exports, the paper also provides an overview study on the export performance of various products in glass and glassware. Main objective of study is to analysis the export performance of various products in glass and glassware from India during the period of 2010-11 to 2021-22. The study makes use of statistical techniques such as percentage analysis, growth analysis, average, standard deviation, AAGR and CAGR in analysing the data for finding the result.

Key Words: Glass and Glassware, Export Data, Percentage Analysis Introduction:

Glass and Glassware is traded all around the world. The data provided on the export analysis shows that there are almost 99 countries and territories, which actively import Glass and Glassware from India. The combined value of total export is 82.3 USD million. Therefore, if any exporter wishes to export Glass and Glassware then Connect2India offers a complete guide on how to export Glass and Glassware from India. The following data contains everything from Glass and Glassware export analysis to export resources .The top five countries to export Glass and Glassware from India

From the perspective of the data on Glass and Glassware export, India's top 5 trade partners who import Glass and Glassware from Indian exporters are mentioned in the table, although the total export value of the top 5 countries is 79.56 USD million which is the 96.67% of the total export value of Glass and Glassware. Indian glass industry is growing due to the rising interest for glass from the beverage sector, real-estate and the infrastructure. The huge growth in glass consumption has been driven by fast expanding automotive and construction sectors. Earlier, glassmakers in India could not have asked for more. The recent years have shown the best of times in the industry's history. The growth in glass industry of India is led by container glass segment which represents the larger part of the volume. The glassware products are still produced by small scale and mid-size companies majorly.

Indian glass industry is growing due to the rising interest for glass from the beverage sector, real-estate and the infrastructure. The huge growth in glass consumption has been driven by fast expanding automotive and construction sectors. Earlier, glassmakers in India could not have asked for more. The recent years have shown the best of times in the industry's history. The growth in glass industry of India is led by container glass segment which represents the larger part of the volume. The glassware products are still produced by small scale and mid-size companies majorly.

The stricter regulations are required to import export glassware products, the glass packaging continues to face fierce competition from other types of packaging in India. Some packaging issues include load ability, breakages and unit cost. However, it needs to develop more light weight bottles and improve the durability of finished products. In global import export business of glass & glassware, India rank 22nd in exports and 17th in imports. Let's take a look at India import export statistics of glass & glassware products.

Statement of the Problem:

The glass industry faces a number of challenges continued price competition and growing labour shortages, lack of capacity and increasing pressure to innovate. The biggest challenges however is to reconcile all of this. However the solution is easy if you are open to fundamental challenges in the production process. With the conversion from a production line with individual processing stations to an integrated production line, this fundamental change can be implemented relatively easily. The further reduction of manual activities, progress in productivity and higher throughput, quality improvement and future security even in the age of Industry 4.0 - all this is part of such a solution and thus the answer to current and future challenges.

Objectives:

The research aims at enriching the knowledge understanding role of export performance of glass and glass ware. The following are the objective of the study.



COSMETICS EXPORT PERFORMANCE IN INDIA

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Cite This Article: Dr. N. Bhuvanesh Kumar & J. Francelin Rose Mystica, "Cosmetics Export Performance in India", International Journal of Scientific Research and Modern Education, Volume 7, Issue 1, Page Number 115-120, 2022.

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Abstract:

The Indian cosmetics market has seen major changes in terms of user perception and product availability over the past few years. There have been market shifts during this period and the past few years have seen the market take further momentum. The increasing market size is the direct result of the changing socioeconomic status of the Indian consumers, especially women. Higher paying jobs and increasing awareness of the western world and beauty trends there have served to change the tastes and customs of the middle class and higher strata of the society, with the result that a woman from such social strata now is more conscious of her appearance and is willing to spend extra cash on enhancing it further. Main objective of the study is to find out the export performance of cosmetics products of India during the period of 2005-2019. The study makes use of statistical techniques such as Percentage analysis, Growth analysis, Standard Deviation, CAGR and CV in analyzing the data for finding the result.

Key Words: Cosmetics, Production, Export and India

Introduction:

The cosmetic industry describes the industry that manufactures and distributes cosmetic products. These include color cosmetics, like foundation and mascara, skincare such as moisturizers and cleansers, haircare such as shampoos, conditioners and hair colors, and toiletries such as bubble bath and soap. The manufacturing industry is dominated by a small number of multinational corporations that originated in the early 20th century, but the distribution and sale of cosmetics is spread among a wide range of different businesses. The largest cosmetic companies are Johnson & Johnson, L'Oréal Paris, Gillette, Neutrogena, Nivea and ChaChane. The market volume of the cosmetics industry in Europe and the United States is about EUR €70b per year, according to a 2005 publication. The worldwide cosmetics and perfume industry currently generates an estimated annual turnover of US\$170 billion (according to Eurostaf – May 2007). Europe is the leading market, representing approximately $\in 63$ billion. The cosmetic industry worldwide seems to be continuously developing, now more than ever with the advent of the Internet companies. Many famous companies sell their cosmetic products online also, in countries in which they do not have representatives. The cosmetic industry in Asia is mainly dominated by regional cosmetic brands. Shiseido Co. LTD, A popular cosmetic brand based in Japan, has 82.1% of its sales in Asia. No other Western company in the top 10 match these kinds of regional sales. Furthermore, geographic dispersion of sales by Asian cosmetic companies in Asia accounted for 92.42% of sales, while geographic dispersion of assets of Asian cosmetic companies in Asia was 87.05%. Western cosmetic companies often have failed to gain footholds in various countries. Due to recent significant economic growth in many Asian markets, regulation pertaining to chemicals in cosmetic products has been lacking. SK-II, a cosmetic product owned by P&G, was found to contain banned heavy metals in China in 2006. Another study found that women who had recently moved to Vancouver, Canada from East and South Asia had higher levels of lead in their blood than South and East Asian immigrants who had been living in Canada for longer. One of sources of lead was determined to be some facial powders marketed in various regions of Asia.

The global cosmetics market size was valued at \$380.2 billion in 2019, and is projected to reach \$463.5 billion by 2027, registering a CAGR of 5.3% from 2021 to 2027. Presently, cosmetics have become an indispensable feature of modern lifestyle of individuals. In addition, growth in consciousness about external beauty along with individual's internal intellect has become one of the major driving factors for use of cosmetics in the global market. Presently, along with women, there is a rise in use of cosmetics among men in their daily routine, which complements growth of the global cosmetics market demand. Hence, such changing lifestyles, have led to growth of the global cosmetics market. Manufacturers are changing their product branding and advertising strategies to accelerate their sales across various countries. Innovative strategies such as new product launches with natural ingredients and appealing packaging have been adopted by manufacturing companies to increase sales of their cosmetics products. As cosmetics products, which are handy and easy to use while travelling or attending social meetings. Moreover, use of natural ingredients for manufacturing of cosmetics
International Journal of Scientific Research and Modern Education (IJSRME) Impact Factor: 7.137, ISSN (Online): 2455 – 5630 (www.rdmodernresearch.com) Volume 7, Issue 1, 2022



RICE EXPORT PERFORMANCE IN INDIA M. Prem* & S. Raj Kumar**

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Cite This Article: M. Prem & S. Raj Kumar, "Rice Export Performance in India", International Journal of Scientific Research and Modern Education, Volume 7, Issue 1, Page Number 66-69, 2022.

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Abstract:

The rice export is the main part of agricultural industries. It is one of the primary part of economic development of a country. The rice products has been export from India is make an increase in the level of export to infrastructural development and rapid industrialization of the country. The study has observed that rice contributed substantially to the national income during the study period. The study makes use of statistical techniques such as percentage, analysis, growth analysis, standard deviation, compound annual growth rate and annual average growth rate in analyzing the data for finding the result.

Key Words: Rice, Export Data, Percentage Analysis

Introduction:

India, with a large and diverse agriculture, is among the world's leading producer of cereals, milk, sugar, fruits and vegetables, spices, eggs and seafood products. Indian agriculture continues to be the backbone of our society and it provides livelihood to nearly 50 per cent of our population. India is supporting 17.84 per cent of world's population, 15% of livestock population with merely 2.4 per cent of world's land and 4 per cent water resources. Hence, continuous innovation and efforts towards productivity, pre & post-harvest management, processing and value-addition, use of technology and infrastructure creation is an imperative for Indian agriculture. Various studies on fresh fruits and vegetables, fisheries in India have indicated a loss percentage ranging from about 8% to 18% on account of poor post-harvest management, absence of cold chain and processing facilities. Therefore, agro processing and agricultural exports are a key area and it is a matter of satisfaction that India's role in global export of agricultural products is steadily increasing. India is currently ranked tenth amongst the major exporters globally as per WTO trade data for 2016. India's share in global exports of agriculture products has increased from 1% a few years ago, to 2.2 % in 2016.

Growth in agricultural exports, despite pandemic disruptions, has been driven by the government's policy-level interventions as well as the expansion of products into new markets, Commerce Secretary Anup Wadhawan said on Thursday.

After remaining stagnant for the last three years, the export of agriculture and allied products during 2020-21 grew 17.34 per cent to \$41.25 billion. In 2017-18 and 2018-19, they hovered around \$38 billion, thereafter declining to \$35.16 billion in 2019-20. India had the highest export volume of rice worldwide, at 18.75 million metric tons as of 2021/2022. Vietnam was the second largest rice exporter, with about 6.5 million metric tons of rice worldwide in that year

India is the 2nd largest rice producer and the largest exporter of rice worldwide. Rice Production in India expanded from 53.6 million tons in FY 1980 to 120 million tons in FY 2020-21. Rice is one of the main grains of India. Additionally, this nation has the most significant region under rice development as it is one of the chief food crops. India comes under the leading rice producing states. Rice is the essential food crop, and being a tropical plant, it quickly grows in a humid and hot environment.

Rice is a large part of India's eating routine for different reasons. The main explanation is that rice gives energy to the body. Aside from this, rice is likewise solid and loaded with minerals that satisfy the body's day to day necessities. So now is the ideal time to investigate more into the rice world and taste your ordinary staple in another structure! Every assortment of rice has a novel taste, fragrance, and properties and is used for making various kinds of dishes.

West Bengal has the highest production of rice in India. Close to half of its arable land is under rice cultivation. In 2020, rice production in West Bengal was 15.57 million tons. After that, however, West Bengal rice growth vacillated significantly. It is the largest rice producing state, with a yield of 2600 kg for every hectare. That is why farmers develop rice in little pieces of the lower Gangetic fields, particularly in Bardhaman, Midnapore, Birbhum, 24 Parganas, etc. Thus, this state is the largest producer of rice in India.

Statement of the Problem:

India is the leading exporter of many products. Export and import India developed in day by day. The results revealed that common problems encountered by rice farmers were: high cost of inputs, low price of palay, lack of capital, labor problem, lack of postharvest facilities, pest and diseases and irrigation system.

International Journal of Computational Research and Development (IJCRD) Impact Factor: 5.015, ISSN (Online): 2456 - 3137 (www.dvpublication.com) Volume 7, Issue 1, 2022



RUBBER EXPORT PERFORMANCE IN INDIA M. Prem* & S. Sowmiya**

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Cite This Article: M. Prem & S. Sowmiya, "Rubber Export Performance in India", International Journal of Computational Research and Development, Volume 7, Issue 1, Page Number 66-69, 2022.

Abstract:

Sensitization of natural rubber latex by addition of a small quantity of an anionic surfactant prior to the addition of a coacervant results in quick coagulation. The natural rubber prepared by the novel coagulation method shows improved raw rubber characteristics, better cure characteristics in gum and carbon black filled compounds and improved mechanical properties as compared to the conventionally coagulated natural rubber. Compounds based on dried master batches prepared by the incorporation of fluffy carbon black in different forms of soap sensitized natural rubber lattices such as fresh latex, preserved field latex, centrifuged latex and a blend of preserved field latex and skim latex show improved cure characteristics and vucanizate properties as compared to an equivalent conventional dry rubber-fluffy carbon black based compound. The fresh natural rubber latex based carbon black-silica master batch/ polybutadiene blend vulcanizates show superior mechanical and dynamic properties as compared to the equivalent compound vulcanizates prepared from the dry natural rubber-filler (conventional dry mix)/polybutadiene blends

Key Words: Carbon Black Master Batch, Coacervant, Fresh Natural Rubber Latex, Surfactant Introduction:

The largest producers of Rubber in the world are Thailand, Japan, Singapore, Malaysia, Germany, Russia, France, Italy, Spain, and China. During the year, 2010-2020, total world production of rubber is 26904.84 thousand tons. The Indian Rubber Industry plays a vital role in the Indian national economy. The rubber plantation sector in India produces over 630 hundred thousand tons of natural rubber and there is a projected production of more than one million tons in near future. This has helped in the radical and rapid growth of the Indian rubber industry. This prospect of growth is further enhanced by a boom in the vehicle industry, improved living standards of the people and rapid over-all industrialization.

Statement of the Problem:

Innovative and exploratory research calls for a statement of the problem of study on the industry considered for study. Although the district accounts for more than 90 per cent of latex production in the State of Tamil Nadu, the industries in operation are not producing useful rubber products such as automobile tires, rubber bushes or numerous other industrial accessories as expected from such an industry. The trend in rubber production disproves the basic principles governing the localization of industries. Unless efforts are made to overcome factors impeding the growth of such industries in the district, there is no gainsaying the fact that the growth of the rubber plantations would be in peril, in the days ahead. So this study would focus on this concern of industrial development and identify the factors responsible for non-proliferation of industries manufacturing rubber products. The study would also assess, at the same time, the potential for a steady and abundant supply of latex, which constitutes the major raw material for these products.

Objectives of Study:

The research aims at enriching the knowledge understanding role of export performance of rubber. The following are the objective of the study.

- To assess the exporting details of rubber product to the 10 countries in exports.
- To provide necessary suggestions based on the findings of the study.

Scope of the Study:

The scope of this project is involved the export performance of rubber products in Indian. The export performance of Indian rubber products is affected by the high competition. This study also gives growth rate and trend percentage of the export rubber products year wise and also country wise. The study provides suggestions to the rubber exporting industries to improve their performance

Research Methodology:

Secondary Data:

The secondary data is collected to supplement the primary data. The annual reports of sample units, Publications of rubber products, in the website of Ministry of Commerce and Industries, Bulletins Working and Occasional Papers of EXIM Bank were used as important sources of secondary data for the stud. **Limitations of the Study:**

- The analysis made only by considering 17 rubber and 10 major countries.
- Time constraint is one of the limitations.

International Journal of Computational Research and Development (IJCRD) Impact Factor: 5.015, ISSN (Online): 2456 - 3137 (www.dvpublication.com) Volume 7, Issue 1, 2022



RICE EXPORT PERFORMANCE IN INDIA M. Prem* & S. Raj Kumar**

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Cite This Article: M. Prem & S. Raj Kumar, "Rice Export Performance in India", International Journal of Computational Research and Development, Volume 7, Issue 1, Page Number 85-88, 2022.

Abstract:

The rice export is the main part of agricultural industries. It is one of the primary part of economic development of a country. The rice products has been export from India is make an increase in the level of export to infrastructural development and rapid industrialization of the country. The study has observed that rice contributed substantially to the national income during the study period. The study makes use of statistical techniques such as growth rate and trend analysis for upcoming 5 years the data for finding the result. **Key Words:** Rice, Export Data, Trend Analysis

Introduction:

India, with a large and diverse agriculture, is among the world's leading producer of cereals, milk, sugar, fruits and vegetables, spices, eggs and seafood products. Indian agriculture continues to be the backbone of our society and it provides livelihood to nearly 50 per cent of our population. India is supporting 17.84 per cent of world's population, 15% of livestock population with merely 2.4 per cent of world's land and 4 per cent water resources. Hence, continuous innovation and efforts towards productivity, pre & post-harvest management, processing and value-addition, use of technology and infrastructure creation is an imperative for Indian agriculture. India is the 2nd largest rice producer and the largest exporter of rice worldwide. Rice Production in India expanded from 53.6 million tons in FY 1980 to 120 million tons in FY 2020-21. Rice is one of the main grains of India. Additionally, this nation has the most significant region under rice development as it is one of the chief food crops. India comes under the leading rice producing states. Rice is the essential food crop, and being a tropical plant, it quickly grows in a humid and hot environment.

Statement of the Problem:

India is the leading exporter of many products. Export and import India developed in day by day. The results revealed that common problems encountered by rice farmers were: high cost of inputs, low price of palay, lack of capital, labor problem, lack of postharvest facilities, pest and diseases and irrigation system. **Objectives of the Study:**

- To assess the prospects of rice export from India
- To know the various problems/constraints of rice export from India to various countries in the world.

Scope of the Study:

The scope of this project is involved the export performance of cotton products in India. The export performance of Indian rice products is affected by the high competition. This study also gives growth rate and trend percentage of the export rice products year wise and also country wise. The study provides suggestions to the rice exporting industries to improve their performances.

Research Methodology:

Secondary Data:

The secondary data is collected to supplement the primary data. The annual reports of sample units, Publications of rice products, in the website of Ministry of Commerce and Bulletins Working and Occasional Papers of EXIM data bank were used as important sources of secondary data for the study.

Limitations of the Study:

- The analysis is made only by considering 11 rice products and 15 major countries.
- Time constraint is one of the limitation.

Period of Study:

The research data is collected in 13 financial years. That years is 2009-2010 to 2022.

Review of Literature:

Kumar, A. vol. 3 (2011), tried to analyse rural poverty and agriculture growth in India and several efforts and inventions by the Govt. departments, National and International Agencies and Civil societies continuous to persist in India. The study has brought out the importance of agriculture productivity, farm wages and rural literacy.

Kent, R. (2010), in conclusion, this study suggests that agricultural production is likely to remain an important livelihood activity for marginal farmers due to a lack of alternative rural livelihoods and limited opportunities. If increased attention to policy and investment to support smallholder agriculture are not provided to these marginal farmers, there is a strong risk that the majority of benefits will accrue to better off farm

International Journal of Scientific Research and Modern Education (IJSRME) Impact Factor: 7.137, ISSN (Online): 2455 – 5630 (www.rdmodernresearch.com) Volume 7, Issue 1, 2022



RUBBER EXPORT PERFORMANCE IN INDIA M. Prem* & S. Sowmiya**

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Cite This Article: M. Prem & S. Sowmiya, "Rubber Export Performance in India", International Journal of Scientific Research and Modern Education, Volume 7, Issue 1, Page Number 99-102, 2022.

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Abstract:

Sensitization of natural rubber latex by addition of a small quantity of an anionic surfactant prior to the addition of a coacervant results in quick coagulation. The natural rubber prepared by the novel coagulation method shows improved raw rubber characteristics, better cure characteristics in gum and carbon black filled compounds and improved mechanical properties as compared to the conventionally coagulated natural rubber. Compounds based on dried master batches prepared by the incorporation of fluffy carbon black in different forms of soap sensitized natural rubber lattices such as fresh latex, preserved field latex, centrifuged latex and a blend of preserved field latex and skim latex show improved cure characteristics and vucanizate properties as compared to an equivalent conventional dry rubber-fluffy carbon black based compound.

The fresh natural rubber latex based carbon black-silica master batch/ polybutadiene blend vulcanizates show superior mechanical and dynamic properties as compared to the equivalent compound vulcanizates prepared from the dry natural rubber-filler (conventional dry mix) / polybutadiene blends

Key Words: Carbon Black Master Batch, Coacervant, Fresh Natural Rubber Latex, Surfactant

Introduction:

The Rubber Board is a statutory body constituted by the Government of India, under the Rubber Act 1947, for the overall development of the rubber industry in the country. The importance of rubber production in India from strategic and security reasons had been realized by the government during the Second World War period. The rubber growers in India were encouraged to produce the maximum rubber required for the use during war. After the war, there were growing demands from the growers for setting up a permanent organization to look after the interests of the industry.

The Indian Rubber Industry plays a vital role in the Indian national economy. The rubber plantation sector in India produces over 630 hundred thousand tones of natural rubber and there is a projected production of more than one million tons in near future. This has helped in the radical and rapid growth of the Indian rubber industry. This prospect of growth is further enhanced by a boom in the vehicle industry, improved living standards of the people and rapid over-all industrialization.

Statement of the Problem:

Innovative and exploratory research calls for a statement of the problem of study on the industry considered for study. Although the district accounts for more than 90 per cent of latex production in the State of Tamil Nadu, the industries in operation are not producing useful rubber products such as automobile tyres, rubber bushes or numerous other industrial accessories as expected from such an industry. The trend in rubber production disproves the basic principles governing the localization of industries.

Unless efforts are made to overcome factors impeding the growth of such industries in the district, there is no gainsaying the fact that the growth of the rubber plantations would be in peril, in the days ahead. So this study would focus on this concern of industrial development and identify the factors responsible for non-proliferation of industries manufacturing rubber products. The study would also assess, at the same time, the potential for a steady and abundant supply of latex, which constitutes the major raw material for these products. **Objectives of Study:**

The research aims at enriching the knowledge understanding role of export performance of cotton. The following are the objective of the study.

- To analyze the export performance of rubber products from India.
- To provide necessary suggestions based on the findings of the study.

Scope of the Study:

The scope of this project is involved the export performance of rubber products in Indian. The export performance of Indian rubber products is affected by the high competition. This study also gives growth rate and trend percentage of the export rubber products year wise and also country wise. The study provides suggestions to the rubber exporting industries to improve their performance

PUBLIC HEALTH CENTERS ROLE FOR THE DEVELOPMENT OF RURAL COMMUNITIES – A DECISIVE APPROACH

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Mr. Ajay Kumar and Mr. Madhu Balaji, II M. Com IB Students, Nallamuthu Gounder Mahalingam College, Pollachi

INTRODUCTION:

The new agenda for Public Health Centers in India includes specialized treatment against Covid 19¹. The first case of the COVID-19 pandemic in the Indian state of Tamil Nadu was reported on 7 March 2020. The largest single-day spike (30,987 cases) was reported on 13 May 2021. The other dimensions of PHC's are to strengthen the health system, develop the human resource and build the capacity and regulate them in public health². Tamil Nadu stood as the fourth highest number of Covid confirmed cases in India after Maharashtra, Kerala and Karnataka. All 38 districts of the state are affected by the pandemic, with capital district Chennai being the worst affected³.

The state government has responded to the outbreak by following a contact-tracing, testing and surveillance model. The causes of health inequalities lie in the social, economic and political mechanisms that lead to social stratification according to income, education, occupation, gender and race or ethnicity⁴. The state has 85 laboratories approved by Indian Council of Medical Research (ICMR), capable of conducting tests. It is imperative that the government and community collectively rise to the occasion and face these challenges simultaneously, inclusively and sustainably. The government should take strict action in cases of diversion of funds and goods from social security schemes through law enforcement, community awareness and speedy redressal mechanisms⁵.

STATEMENT OF THE PROBLEM:

The Public Health Centers are giving free and good treatments for all types of peoples. When the problems are all PHC are not having the proper facilities for all kind of treatments like lack of staffs, lack of medicine, lack of infrastructure, etc., and the study about also what are the problems faced by the rural communities in PHCs.

OBJECTIVES

- To depict the role of Public Health Centers in Treating COVID 19.
- To examine the ways of rural communities on the challenges posed by COVID-19
- To portray the other health problems of the rural communities in COVID -19 spread.
- To identify the best strategies and measures executed by the PHC's for developing the rural communities.

METHODOLOGY

The study is conducted in order to measure the impacts of PHC's to treat COVID-19 pandemic. For this study PHC's (Pollachi Taluk and Dindigul District) have been identified. The purposive sample method was used for selection of rural communities. The Primary data has been collected with the prominent persons and villagers in order to ensure the proper representation of local communities.

SAMPLE

The overall sample size to be determined is restricted as 90. (Based on the convenience and availability of the respondents).

FRAMEWORK OF ANALYSIS

Simple Percentage Method and Chi-square Method has been used to analyze the data collected.

PUBLIC HEALTH CENTERS ROLE FOR THE DEVELOPMENT OF RURAL COMMUNITIES – A DECISIVE APPROACH (WITH SPECIAL REFERENCE TO SAMATHUR AND NALLAMPALLI PANCHAYATH)

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INTRODUCTION:

The new agenda for Public Health Centers in India includes specialized treatment against Covid 19¹. The first case of the COVID-19 pandemic in the Indian state of Tamil Nadu was reported on 7 March 2020. The largest single-day spike (30,987 cases) was reported on 13 May 2021. The other dimensions of PHC's are to strengthen the health system, develop the human resource and build the capacity and regulate them in public health². Tamil Nadu stood as the fourth highest number of Covid confirmed cases in India after Maharashtra, Kerala and Karnataka. All 38 districts of the state are affected by the pandemic, with capital district Chennai being the worst affected³.

The state government has responded to the outbreak by following a contact-tracing, testing and surveillance model. The causes of health inequalities lie in the social, economic and political mechanisms that lead to social stratification according to income, education, occupation, gender and race or ethnicity⁴. The state has 85 laboratories approved by Indian Council of Medical Research (ICMR), capable of conducting tests. It is imperative that the government and community collectively rise to the occasion and face these challenges simultaneously, inclusively and sustainably. The government should take strict action in cases of diversion of funds and goods from social security schemes through law enforcement, community awareness and speedy redressal mechanisms⁵.

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The Public Health Centers are giving free and good treatments for all types of peoples. When the problems are all PHC are not having the proper facilities for all kind of treatments like lack of staffs, lack of medicine, lack of infrastructure, etc., and the study about also what are the problems faced by the rural communities in PHCs

OBJECTIVES

• To depict the role of Public Health Centers located in Samathur and Nallampallyin Treating COVID 19.

- To examine the challenges faced by rural communities in facing COVID-19
- To portray the other health problems of the rural communities in COVID -19 spread.

• To identify the strategies and measures executed by the PHC's for developing the rural communities.

METHODOLOGY

The study is conducted in order to measure the impacts of PHC's to treat COVID-19 pandemic. For this study PHC's (Samathur and Nallampalli Panchayath) have been identified. The purposive sample method was used for selection of rural communities. The Primary data has been collectedduring November to January 2022-23 with the prominent persons and villagers in order to ensure the proper representation of local communities.

Madhya Bharti -Humanities and Social Sciences UGC Care Group I Journal (मध्य भारती) ISSN: 0974-0066 Vol-83 No. 18, January – June: 2023 TO STUDY THE IMPACT OF DRUG ADDICTION AND THEIR LIFESTYLE BELOW THE AGE OF 25 WITH REFERENCE TO POLLACHI TALUK

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ABSTRACT

Drug addiction has become a worldwide problem and the leading cause of death. The global problem of addiction and drug abuse is responsible for millions of deaths. In recent years, India is seeing a raising trend in drug addiction. Around 13.1 per cent of the people involved in drug and substance abuse in India are below 20 years, which calls for further stepping up community intervention and preventive mechanism targeting adolescents. Children face increased risk of drugs and alcohol abuse due to their poor mental and physicalhealth resulting from violence, exploitation and sexual abuse against them. Nine out of 10 people with drug addiction begin using substances before they are 18 years old. Child trafficking, child labour and exploitation by criminals often result in poor mental and physical health of children, leading to high risk of drugs and alcohol abuse. Involvement of youngsters in crime is mostly due to socio-economic hardship and the lack of opportunities. This paper is made with the effort to the impact of drug addiction and their lifestyle below the age of 25 with reference to Pollachi Taluk.

Keywords: Drug addiction, Raising Trend, Alcohol abuse, Issues and challenges.

PREAMBLE OF THE STUDY

The National level survey conducted on drug use in India indicated that prevalence of drug abuse among males in the general population is significant. Drug abuse among women exists. Adolescent drug abuse is another major area of concern because more than half of the person's with substance use disorder are introduced to drugs before the age of 15 years. At present, there exists a significant gap in service delivery. Economic burden disturbed family environment, violence, and psychological problems are other consequences of drug abuse in the family. Partners, children, parents, and friends of someone battling with addiction also experience emotional damage. They may also have to deal with financial, legal, medical, and other consequences. Another economic effect from drug abuse is the lost human productivity, such as lost wages and decreased production that results from illnesses and premature deaths related to drug abuse. Drug addiction can lead to decreased performance or increasedabsence at school and work, changes in friends and social circles, and troubles at home, all of which will be explored further as the social effects of drug abuse in a community. It results inlarge-scale carbon emissions, water depletion, pollution and biodiversity loss. In India an NGO survey revealed that 63.6 % of patients coming in for treatment were introduced to drugs at a young age below 15 years. According to another report 13.1% of the people involved in drug and substance abuse in India, are below 20 years. A survey shows that of all alcohol, cannabis and opium users 21%, 3% and 0.1% are below the age of eighteen. Overall 0.4% and 4.6% of total treatment seekers in various states were children. Around 13.1 per cent of the people involved in drug and substance abuse in India are below 20 years, which calls for further stepping up community intervention and preventive mechanism targeting adolescents. Children face increased risk of drugs and alcohol abuse due to their poor mental and physical health resulting from violence, exploitation and sexual abuse against them. Nine out of 10 people with drug addiction begin using substances before they are 18 years old. Child trafficking, child labour and exploitation by criminals often result in poor mental and physical health of children, leading to high risk of drugs and alcohol abuse. Involvement of children in crime is mostly due to socio-economic hardship and the lack of opportunities

TO STUDY THE IMPACT OF DRUG ADDICTION AND THEIR LIFESTYLEABOVE THE AGE OF 25 WITH REFERENCE TO POLLACHI TALUK

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ABSTRACT

Drug abuse is viewed as a multifactorial health issue that frequently progresses in a relapsing and remitting manner. Effective patient care and rehabilitation are crucial for the public health given the personal and socioeconomic hardship that drug dependency causes. In order to prevent or treat diseases, or to improve physical and mental performance, doctors may prescribe drugs, which are then removed as soon as the desired result is reached. The body may become dependent if certain medications are regularly or continuously used. They act on the brain and alter behaviour, consciousness and capacity of perception. The magnitude of the suffering caused by drug use disorders is underlined by approximately 18 million years of healthy life lost, mostly due to opioid. Most of drugs which have the properties of altering the mental state of a being in ways that are considered by social norms and defined by statute to be inappropriate, undesirable, harmful threatening to the life of the user and to the society at large.

They may also have to deal with financial, legal, medical, andother consequences. Another economic effect from drug abuse is the lost human productivity, such as lost wages and decreased production that results from illnesses and premature deathsrelated to drug abuse. This availability of drugs to the adolescence and the society proves a cause and a cancer to society. The magnitude of the suffering caused by drug use disorders is underlined by approximately 18 million years of healthy life lost, mostly due to opioid. The effects of drug use disorders on society are substantial. **Keywords**:Drug, Public health, Diseases, Adolescence behaviour, Life style

PREAMBLE OF THE STUDY

The effects of drug use disorders on society are substantial. The economic cost, including everything from lost wages to medical, legal, and mental health implications is about \$215 billion. Adolescence are increasingly engaging in prescription drug abuse, particularly narcotics, also called opioids and stimulant medications, which treat conditions like attention-deficit disorder and narcolepsy. Economic burden disturbed family environment, violence, and psychological problems are other consequences of drug abuse in the family. Partners, children, parents, and friends of someone battling with addiction also experience emotional damage. They may also have to deal with financial, legal, medical, and other consequences. Though chronic, treatment is available for drug addiction. Many techniques are used, such as behavioral counseling, medication to treat the addiction, and providing treatment not just for substance abuse but also for many factors that accompany addiction. There are rehabilitation centers to help people. After treatment, there are numerous follow-ups to ensure that the cycle does not come back. The most important is having family and friends to support the effect. It will help them build confidence and come over their addiction.

STATEMENT OF THE PROBLEM

Drug abuse is one of the major problems that are increasing in an alarming in India today. About two decades ago incidence of drug trafficking in India was low and abuse was minimal, but today drug has destroyed and killed many people in the society. Above the age of 25, were consuming drugs and getting addicted to it. It has been observed that drug abuse could be viewed from different

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ABSTRACT

India is a largest coir producer in the world accounting for more than 80% of the total world production of coir fibre. This study covers the export performance of coir and coir products that were highly exported to other countries from 2015 to 2022. Analysis is made with the data's available in the Coir Board of India. The growth level of the coir industry and growth percentage of each coir products is analysed and interpreted. The future growth of the coir and coir products is also analysed based on the current and past data's that were available in the website of Coir Board.

(Keywords: Coir products, Export performance, Coir industry, future growth)

INTRODUCTION

Coir, also known as coco's, is a natural golden fibre extracted from the protective husk of coconuts, or mesocarp tissue. This golden fibre found multi various uses in the indigenous hands of the people in habiting in the Malabar coast of India. Since its humble beginning in 1859 when the Irish American named James Darragh started the first coir factory Darragh-small a large-scale production cum commercial factory in Alleppy over the years. Export is the most important source of foreign exchange for developing countries. Coir Board was set up under the Coir Industry Act, 1953 by the Government of India for the overall sustainable development of the coir industry in the Country. Kerala is now one of the largest cottage industries in India, which provides livelihood to millions of people in the densely populated costal belt of Kerala and various other parts of the country.

STATEMENT OF PROBLEM

Export is the most important source of foreign exchange for developing countries. All developing countries, including India, strive to increase their exports as a means for mobilizing resource for their development plans. The demand for coir products is increasing every year due to growing environmental consciousness and recognition for natural fibres worldwide. The export performance and problems in export of coir and coir products in Pollachi Taluk is covered. In this environment, it is imperative to find out the export performance of coir products. Keeping this in mind, the researcher focuses on the export performance of coir products.

OBJECTIVES OF THE STUDY

- > To analyse the export performance of top 10 Coir products from India.
- > To study the country-wise export performance of top 10 coir products from India.

RESEARCH METHODOLOGY

The methodology adopted in the present study includes the selection of the study area, research design, and the collection of data, tools applied and framework of analysis.

Research Design - Research design is the basic plan which guides to collect relevant information accurately and economically for objectives set up for the research.

Source of Data - The data was collected from the basis of secondary sources. The secondary data has been collected from various sources such as various reports of the coir board, coir statistics, Ministry of commerce, Export Import Bank, and coir export review etc.

EXPORT ANALYSIS OF LEATHER AND LEATHER PRODUCTS

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ABSTRACT

Depending on the design chosen for the production of leather goods, leather can be used alone or together with various supporting materials which give form and strength to it. Reinforcements are extremely important component of leather goods whether wallet or purse, handbags or suitcases, belts or portfolio. Reinforcements which provide support to the leather are used to change the drape and handling of leather goods. The physico-mechanical properties of the leather goods may vary depending on the supporting material used. In this study, the mechanical properties of leather for handicrafts reinforced with supporting materials, in particular, salpa and syntex with different thicknesses were examined. For this purpose, the measurement of thickness, tear load, tensile strength and percentage extension have been performed.

(Keywords: Leather products, Export performance, Leather industry, future growth)

INTRODUCTION

Evolution of the Indian Leather Industry over the last fifty years makes an excellent reading. Like any other business the Indian leather industry had its beginnings mainly as a trader of hides and skins. The intrinsic desire to add value to the business, introduces manufacturing activities in a gradual manner. The manufacturing activities started off with the preservation of hides and skins and further to tanning and post-tanning activities. The prime purpose of tanning is to soften raw hides and skins and introduce the necessary quality required by the end products that are made out of leather.

STATEMENT OF THE PROBLEM

The Global import of Leather and Leather Products is growing at a cumulative annualgrowth rate of 5% (Council for Leather Exports) and this trend is expected to follow in the nearfuture. Also, among the different products imported within the leather sector, world demand forleather footwear comprises of 70.64%. To bring into line to the trend of the global imports, thepercentage share of leather footwear among the different leather products for export is also thehighest in India. The footwear sector is a very important segment of the leather industry in Indiaand is considered the engine of growth for the entire Indian leather industry.

OBJECTIVE OF THE STUDY

The following are the major objectives of the present study.

- 1. To analyze the export performance of leather and leather products in India.
- 2. To examine the country wise export performance of leather products from India.
- 3. To provide necessary suggestions based on the findings of the study.

RESEARCH METHODOLOGY

Research methodology is a scientific and systematic way to solve the formulated research problem. It includes theplan of research activities starting from collection of reviews to report preparation. The research methodology deals with research methods and takes into consideration the logic behind the methods.

The methodology adopted in the present study includes the selection of the study area, researchdesign, and the collection of data, tools applied and framework of analysis.

IMPACT OF CHRONIC STRESS TOWARDS SELF-DESTRUCTION ATTITUDE

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ABSTRACT

Students in education settings face a wide range of stress related to academic, physical, financial and mental level. Previous research indicates that academic-related stress can reduce academic achievement, decrease motivation and increase the risk of school dropout. The longer-term impactwould reduce the likelihood of sustainable employment each year. This study presents the impact of chronic stress related to academic and physical problem that makes you feel stressed and the ways to overcome from stressful thoughts and through stress busters.

INTRODUCTION

In today's highly competitive world, students face various academic problems including exam stress, disinterest in attending classes and inability to understand the subject. Examination stress is the feeling of anxiety or apprehension over one's performance in the exams. It can lead the students not able to perform to the best of their abilities in exams. Academic stress is the major source of stress among adolescents and it may lead to low self-esteem. Many psychological problems such as depression and suicide occur as a result of low self-esteem.

Stress is generally defined as the body's nonspecific response or reaction to demands made on it, or to disturbing events in the environment. Stress can also be defined as any change in the body's equilibrium. Any negative stress is also known as distress. Distress occurs while performing a task or throughout a day to day activity and tension builds up, there is no longer any fun in it and there seems to be no relief. This may lead to poor decision making. The general characteristics of the person in distress are, over-aroused, tense, unable to relax, touchy, easily upset, irritable, easily startled, nervy, jumpy, fidgety and intolerant of interruption or delay. As mentioned earlier, excessive stress results in increased prevalence of psychological problems like depression, anxiety, substance abuse and suicide

Higher secondary school education is a very important turning point in the academic life of the individual. It is similar of GCE a level of schooling in the countries like Great Britain. At this stage, the academic performance of the youth/adolescents plays a crucial role in deciding about next higher stage of education, and probably career too. Academic stress is mental distress with respect to some anticipated frustration associated with academic failure or even unawareness to the possibility of such failure. Students have to face many academic burden/load, for example, school examination, answering questions in the class, showing progress in school subjects. Understanding what the teacher is teaching, competing with other class mates, fulfilling teachers and parent's academic expectations.

This study will find the self-immolation attitude among secondary school student due to academic and personal stress as well this study brings out the solution for the above mentioned problem.

STATEMENT OF THE PROBLEM

The causes of academic stress can be classified mainly into seven categories i.e. the stress due to teachers, stress due to exams and test, stress due to peer, stress due to parental and social, stress due to time management and infrastructure, and stress due to self-inflicted factors. These can

Madhya Bharti -Humanities and Social Sciences UGC Care Group I Journal (मध्य भारती) ISSN: 0974-0066 Vol-83 No. 18, January – June: 2023 SELF IMMOLATION ATTITUDE AMONG SCHOOL STUDENTS ON ACUTE STRESS

Dr. R. GAYATHRI, Associate Professor – PG Department of Commerce with International Business Nallamuthu Gounder Mahalingam College, Pollachi Ms. SANTHIYA S (21-PI-22), Nallamuthu Gounder Mahalingam College, Pollachi

Abstract

The present research article isinvestigating about the self-immolation attitude among school students due to academic and personal on acute stress with the reference of 34 respondents from various schools in Pollachi Taluk. Today's lifestyle has made a stress as daily occurrence. Acute stress that occurred for a brief time had a serious impact on the student population, such as anxiety and despair, which cause students to think emotionally. Only when stress is under control will it be healthy. However, it becomes more difficult for students to concentrate and complete tasks when stress, worry, and anxiety start to overpower them. This study analyses the relationship between the stress level (Acute stress) of the students, reasons for their stress, steps to overcome from their stress and from the self-immolation thoughts occur due to stress.

Keywords: Stress level, Acute stress, Self-immolation thoughts, reasons and steps to overcome stress

Introduction

People often believe that students are least influenced by stress or other issues. But because of different internal and external expectations placed on school students, nowadays stress has become a part of their academic and personal lives. Mental health issues such as despair and anxiety are the effects of stress and it should be brought under control. However, it becomes more difficult for students to concentrate and complete tasks when stress, worry, and anxiety start to overpower them. In today's educational environments, students deal with a variety of normative stress which cause inconveniences in academic obligations. The pressure to achieve high marks, worries about receiving poor grades, homework deadlines, exam anxiety, health crises, family problems, and other related issues are examples of academic-related stress that secondary and higher secondary students frequently report. It creates tension among students which make them to depart from their studies and trap them towards self-destructive impulses. As part of this the present study was carried out to find the stress level of the school student and its causes and effect among themselves.

Statement of the problem

Students are affected due to stress for various academic and personal reasons. Stress has become a part of the student's life nowadays due to their academic and personal problems. Acute stress has led to a sharp rise in the number of attempted suicides and the incapacity of students to control their stress levels.Stress become a common word which was used and felt by all students nowadays. This study throws a light on the reasons and problems which create stress among the students.

Objectives

- To study the impact of acute stress among the gender of the school students.
- To study the main reasons of the stress and its impact.
- To know how the students overcome from stress and self-immolation attitude.

Scope of the study

Students stress level is the existing problem faced by the society and government is finding the way and means to solve the societal problem. Stress has become an unavoidable part of everyone's life, even though learning to manage it is crucial. Students felt more stressed for a variety of personal and academic reasons, which leads to self-immolation thoughts. The study will assist the government in formulating the strategy to address the relevant issue.

Published by : Dr. Harisingh Gour University

SOUTH INDIA JOURNAL OF SOCIAL SCIENCES ISSN: 0972 – 8945 WOMEN ENTREPRENEURS FINANCIAL CONSTRAINTS ON WEALTH CREATION

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Abstract

Women entrepreneurs play a significant role in structuring the country's economy. However, their development has remained significantly lowered due to financial restrictionsFinance places a pivotal role in smooth and effective operations, expansion and research and development of the business. The business carried out by women entrepreneurs does not get much patronage from society, especially in finance. This paper examines the influence of business profit and the initial investment on financial challenges women entrepreneurs face in obtaining finance to run a business.

Keywords: Women Entrepreneurs, Financial Constraints

1. Introduction

A woman entrepreneur is ambitious with business expertise, risk-taking capabilities, and a daring spirit marching with vision. The entrepreneurship process starts with identifying opportunities willing to take the risk, with persistent effort and attempts to identify and use opportunities for better results. The entrepreneur has to cross severe hurdles from the moment she starts with the conception of the idea of starting his own business. The challenges faced in the business may be more or less the same whether it may be a small, medium or large enterprise. Indian women operating at the global level is increasing nowadays, and they come across substantial financial constraints concerning the mobilisation of funds and working capital in the growth path of their businesses.

2. Statement of the Problem

Entrepreneurship plays a vital role in the growth of an economy. Both male and female entrepreneurs should share this development, irrespective of the differences. Women empowered in building nations often lack the capital to start a business and face numerous obstacles in raising funds and other loans. Women need a certain level of financial literacy to overcome financial problems. The woman has to mobilise either with the help of her funds or through loans which is essential to strengthen women's role as producers and to widen the economic opportunities available to them. This article focuses on the financial constraints faced by women entrepreneurs.

3. Objectives

1 To understand the financial constraints faced by small-scale women entrepreneurs.

2. To study the relationship between age and business profit towards the financial constraints of women entrepreneurs.

4. Research Methodology

This study focuses on the problems faced by the financial constraints faced by small-scale women entrepreneurs in Tiruppur District. This data were collected from primary and secondary sources such as journals, scholarly articles, web resources and newspapers and through observation. This study is descriptive. This study's primary aim is to find women entrepreneurs' financial constraints in the Tiruppur District. For this purpose, the nine blocks of Tiruppur district were chosen: Tiruppur North, South, Avinashi, Uthukuli, Kangeyam, Palladam, Udumalpet, Madathukulam and Dharapuram). A total of 100 questionnaires were administered for the study. The unorganised women entrepreneurs were chosen based on the snowball sampling method.

5. Review of Literature

The subsequent review of the literature depicts the financial constraints faced by women entrepreneurs. Most of the literature outlines the hurdles faced by women due to lack of capital

Vol. XXI, No.16, July – December: 2023,

(UGC Care Journal)

Prospects of Flower Business in Coimbatore and Tiruppur District

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Abstract

This study is focused on the prospects of flower business and the problems and challenges faced by flower exporters in Coimbatore and Tiruppur districts. The flower exporters were contacted and data was collected from them using a structured questionnaire. Total samples of 75 exporters who are doing flower business were taken for this study. The findings are presented and discussed in the article.

Key Words: Flower, Business, Prospects

INTRODUCTION

India is an ideal country for floriculture, endowed as it is with salubrious climate, inexpensive Labour and good sunshine even in the winders. As a result more than 450 kind's flowers are grown in India. According to one estimate 65000 hectares of Land is under Floriculture which include traditional cut-flowers and modern Floriculture. The major flowers growing states in India are Karnataka, Tamil Nadu, Andhra Pradesh, Maharashtra, and west Bengal.

Despite these favourable factors, Floriculture in India has not taken off in a big way. Entrepreneurs in the field are yet immobile the nuances of growing, packaging and presenting their products to the international markets 99.5% of cut-flowers exporting from India. The (UGC Care Journal)

A Comparative Study on Lead Time Between Amazon and Flip Kart

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Abstract

The present study was carried out to have an understanding in lead time between Amazon and Flip kart. The study is descriptive in nature. A total of 75 respondents participated in the study. Questionnaire was used to collect data from the respondents. Findings of the study are presented and discussed in the article.

Key words: Amazon, Flip kart, Lead time

INTRODUCTION

Internet became more powerful and basic tool for every person's need and the way people works. By integrating various online information management tools using Internet. Various innovation companies have set up system for taking customer order, facilitate making of payment, customer service, collecting of marketing data and online feedback respectively. The activities have collectively known as E-COMMERCE or INTERNET COMMERCE. Online shopping made to critically examine the comparison of customer satisfaction of two big retailer and those are AMAZON and FLIP KART. Bothe these big players made their own mark in India. A comparative study of lead time between Amazon and flip kart deliver the information about the factors that impacts customer satisfaction to succeed in e-commerce market.

Impact of Stress in Multinational Banks in Pollachi Region

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ABSTRACT

This research aims at studying and assessing the level of stress in the selected banks and suggesting the coping strategies of stress in banks. The research will be exploratory as well as descriptive and analytical in nature as it will use both primary and secondary data. Convenience sampling is used to collect data from the respondents using a structured questionnaire. The data were analyzed using simple percentage analysis. The findings are discussed in the article.

Key Words: Multinational, Banks, Stress

INTRODUCTION

Stress is a universal phenomenon and now- a-days no organisation can claim to be stress free. Every job is challenging and more demanding. It requires high standard of performance, high quality in work and getting aspirations and expectation fulfilled. Every employee is forced to have a stressful and hectic lifestyle. If he fails to meet, he faces stress and other psychological problems. It affects the human body, which gives rise to tension, anxiety, depression and anger. By adopting various stress management techniques and knowing exactly, where the stress is coming from, can release stress to a greater extent and give a sort of comfort and boost confidence. In the proceeding article the causes of stress and stress controlling techniques are elaborated clearly. The united-nations international labour organisation (ILO) has defined occupational stress as Global Epidemic. Stress has been defined as imbalance between demand and response. Stress is a psychological reaction to the demand innate in a stressor that has the potency to make a person feels restless or distressed because the person feels that he is not capable of coping with these demands. Han Selye

Study on Recruitment & Selection of Man Power in Export Concern

Located in Tiruppur District

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ABSTRACT

Recruitment and selection plays a vital role in any organization. It is about the quality manpower of the organization and which determines or decides the successful accomplishment of the goals of the organization. Thus in order to understand the significance of recruitment and selection process in export concerns the present study was conducted. The study includes the personnel who are responsible for the process of selection. A sample of 75 personnel's was selected and data was collected from them. The data was analyzed using percentage analysis and findings are presented in the article.

Key Words: recruitment, Selection, Export

INTRODUCTION

This human resource study explains on hiring the right employee for the right position can reduce the rate of employee turnover and improve morale by promoting from within when appropriate. There are many steps in the recruitment and selection process, in any kind of organization, recruitment and selection processes are considered useful, because they help in finding the most suitable candidates for the jobs. Recruitment and selection are important operations in human resource management, designed to make best use of employee strength in order to meet the strategic goals and objectives of the employers and of the organization as a whole. It is a process of screening, sourcing, short listing, and selecting the right candidates for the vacant positions. The employers put into practice recruitment strategies and methods that would be the most beneficial to achieve organizational goals and objectives.

RURAL WOMEN EMPOWERMENT THROUGH ENTREPRENEURSHIP

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Abstract:

Women entrepreneurship plays a lead role in entrepreneurship world.thus, they have to face many challenges both at socially, economically and personally.our government provides many opportunities and schemes for entrepreneurs especially for women.Nowadays, women has filled their role in all the fields.this entrepreneurship development of women cause and provides huge employment opportunities for all Womens.Even though there was a lot of challenges faced by women in the process of achieving a identity of entrepreneur.Because of their personal and social imbalance. Keywords:entrepreneurship - entrepreneurs - opportunities -challenges

Introduction:

The woman, who create,organise and operate enterprises are called as women entrepreneurs.A women entrepreneur is therefore a confident, creative and innovative women.In the advanced countries of the world, there is a phenominal increase in the number of self employed Women after the world war II.In mordern days, Women entrepreneurship was the challenge ful thing in the employment society.

Women Entrepreneurship:

Women entrepreneurship has been getting growing recognition over the past 2 decades across the world.Women entrepreneurs not only generate New jobs for themselves but also for other.They provide society with different solution to management, organization and business problems.

Women entrepreneurship is gaining importance in India in the wake of economic liberalisation and globalisation. The policy and institutional framework for nurturing entrepreneurial skills, imparting vocation education and training has widened the horizon for economic empowerment of the women. However, women constitute one third of the economic entreprise. These, are scores of successful women entrepreneurs both in economic and social fields in India.

Women Entrepreneurs:

The first female entrepreneur was Madame C.J.Walker belonged to America.She is recorded as the first female self-made millionaire in America in the Guinness Book of World records.