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CONTENTS

Volume 9	Issue 6(10)	June 2020
S.No		Page
1.	अजुनः एक ँेर्शिशव्य(महाभारत के िविशःसःदभर् म्)	1
	राजेश कुमार	10
2.	Lalla Ded and Her Sensibility	13
	R.P. Gangwar	13
3.	Le`fr;ksa dk Hleftd egUo	16
4.	Impact of COVID-19 Pandemic on Buying Behavior of Women in Jaipur :A Comparative Study Between Online and Offline Buying	16
	Akanksha Ganda and Bindu Jain	31
5.	Design and Development of 180 ⁰ Forklift	31
	Bhanu Mishra, Kunal Dhumal, Yatin Pahuja, Yogesh Thakur and Sagar Dhamone	40
6.	Organizational Commitment of High Self-Efficacy and Low Self-Efficacy Teachers	40
	Aradhana Sethi	47
7.	Micro Finance: A Case Study on SHGs & NGOs of Kamrup (Rural), Assam	47
	Rajesh Deb Barman	52
8.	Learning for Now and Then for Lifetime	52
	Suja K	60
9.	Didactic Fables and Detailed Observation of ‘Dharma’ through Sanskrit, Telugu and Hindi Literatures-A Study	60
	D.Jeevana Sri, V.Kanchanamala and Ch.Mahesh	64
10.	Role of A Teacher in English Language Teaching for Second Language Learners	64
	T.Saranya and J.Ivanjaline	73
11.	oSfnd ok ³ -e; esa oHfk.k j Z r; lald`r %ea= lafgrk czkã.k vkj.; d mfifu`kn69 rFkk osnk ³ ~x½	73
	j?kukFk izllin	73
12.	Transparency and Ethics in Business: An Overview on Social Ambience: With Reference to Entrepreneurial Growth in Indian Context Since 1947-2018	73
	Glen Francis	81
13.	Social Development in Princely State of Mysore	81
	K.N.Manjunatha	

14.	ವಿಠಿZ ಲಾLd ಫ್ರ esa ಃKಿಸಿೌir ಲಾLdkj dk oSKkfud egUo d".k dqekj feJ	85
15.	Medicinal Plant Identification Through Leaf Structure Analysis Prathiksha, Manjunath H R, Sanjana Shekhar Shetty and Shreesha B	88
16.	A Study of Conception About Mutual Fund and Sip V/S Fixed Deposits Vaishanvi Sharma	93
17.	Impact of Covid-19 on Indian Economy Sunanda Shankar and Shankar T. Battase	110
18.	A Systematic Review on Candidate Selection Process by Resume Sorting and Facial Emotion Recognition Shetty Ashika Chandrashekar, Nagesh U B, Tanaz Jamal Shaikh, Manohar Masthi Gowda Y K and Gagana G R	118
19.	A Study to Assess the Effectiveness of Structured Teaching Programme on Level of Knowledge and Attitude Regarding Immunization among the Mothers of Under Five Children in Selected Rural Areas of Damoh(MP) Sudharani Banappagoudar	126
20.	Plan of Action in Combating Myths Related to Menstruation in Context to Indian Society Sudharani Banappagoudar and Sreemani Pillai	137
21.	Review On Menstrual Hygiene Management Sudharani Banappagoudar and Sreemani Pillai	142
22.	Influence of Weight Status on Sprint Running among High School Boys Rakesh .R	147
23.	In Depths of Luxury Resort's Room Amenities Shweta Kalia, Atul Dubey and Narendra Shukla	153
24.	Effect of Different Levels of Fertilizer and Its Application on Growth, Yield and Quality of Strawberry Under Poly-House V.V. Bhagat, A.S. Lohakare and T.B. Tambe	160
25.	<u>ಸಾಹಿತ್ಯ, ಸಾಹಿತ್ಯತರಾನುವಾದಾಲ-ಮಾರ್ಗದರ್ಶಕ ಸೂತ್ರಾಲ</u> Dr. Y. VIJAYA LAKSHMI,	169

Dr. K. VICTOR BABU

M.A.,M.A.,M.Phil.,Ph.D.,PDF, (D.Lit)

Associate Professor, Institute of Education
& Editor-in-Chief
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Editorial.....

It is heartening to note that our journal is able to sustain the enthusiasm and covering various facets of knowledge. It is our hope that IJMER would continue to live up to its fullest expectations savoring the thoughts of the intellectuals associated with its functioning .Our progress is steady and we are in a position now to receive evaluate and publish as many articles as we can. The response from the academicians and scholars is excellent and we are proud to acknowledge this stimulating aspect.

The writers with their rich research experience in the academic fields are contributing excellently and making IJMER march to progress as envisaged. The interdisciplinary topics bring in a spirit of immense participation enabling us to understand the relations in the growing competitive world. Our endeavour will be to keep IJMER as a perfect tool in making all its participants to work to unity with their thoughts and action.

The Editor thanks one and all for their input towards the growth of the **Knowledge Based Society**. All of us together are making continues efforts to make our predictions true in making IJMER, a Journal of Repute

Dr.K.Victor Babu
Editor-in-Chief

**SOCIAL SCIENCES, HUMANITIES, COMMERCE & MANAGEMENT, ENGINEERING &
TECHNOLOGY, MEDICINE, SCIENCES, ART & DEVELOPMENT STUDIES, LAW**

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अर्जुनः एक श्रेष्ठ शिष्य
(महाभारत के विशिष्ट सन्दर्भ में)

राजेश कुमार
शोधच्छात्र
पंजाब विश्वविद्यालय, चंडीगढ़।

शिष्य शब्द शासने धातु से क्यप् 'शास्'प्रत्यय के योग से बनता है, जिसका अर्थ होता है छात्र विद्यार्थी इत्यादि।, अन्तेवासी, अतः शिष्य में विनम्रता का गुण होना अपेक्षित ही है। शिष्य के विषय में कहा गया है कि जो गुरुजनों की आज्ञाओं का पालन करता है और जीवन को आदर्शमय बनाता है वास्तव में वह शिष्य क, हलाने के योग्य है। वेदों में भी शिष्य के गुणों का विशेष वर्णन हुआ है। ताँ उशतो वि बोधया अप्रस्वती मम धीरस्तु, 21 वेद की यह उक्तियाँ भी जिज्ञासुता, कर्मठता, आज्ञाकारिता इत्यादिको शिष्य का अनिवार्य गुण सिद्ध करती हैं। लोक में भी प्रसिद्ध है कि शिष्य को शरीरइन्द्रिय और मन को संयम में रखकर गुरु के सन्मुख देखना चाहिए। बुद्धि, वाणी, शरीरं चैव वाचं च बुद्धिन्द्रिय मनांसि च।

नियम्य प्राञ्जलिः तिष्ठेत् वीक्षमाणो गुरोर्मुखम्॥

शब्दकल्पद्रुम में शिष्य के गुणों के विषय में कहा है -शान्तो विनीतः शुद्धात्मा श्रद्धावान् धारणक्षमः । - समर्थश्च कुलीनश्च प्राज्ञः मञ्जरितो व्रती । एवमादिगुणैर्युक्तः शिष्यो भवति नान्यथा ॥”

अर्जुन में यह समस्त गुण विद्यमान थे। अर्जुन की साक्षात् गुरु परम्परा में कृपाचार्य, इन्द्र, चित्रसेन, द्रोणाचार्य तथा श्रीकृष्ण आते हैं। अर्जुन इन सभी का आदर करते थे। कौरवों को युद्ध से पूर्व सन्देश भेजते समय अर्जुन ने जो वचन कहे थे वे उनके श्रेष्ठ शिष्यत्व को दिखाते हैं। मैं शान्तनुनन्दन महाराज भीष्म को, आचार्य द्रोण को, गुरुभाई अश्वत्थामा को और जिनका कोई सामना नहीं कर सकता उन वीरवर कृपाचार्य को प्रणाम करके राज्य पाने की इच्छा लेकर अवश्य युद्ध करूंगा।

नमस्कृत्वा शान्तनवाय राज्ञे,

द्रोणायाथो सहपुत्राय चैव ।

शारद्वतायाप्रतिद्वन्दिने च,

योत्स्याम्यहं राज्यमभीप्समानः॥³

कृपाचार्य के शिष्य के रूप में अर्जुन - अर्जुन के गुरुओं की पंक्ति में सर्वप्रथम नाम आचार्य कृप का ही आता है। धृतराष्ट्र ने बालकों को उचित शिक्षा देने के लिए कृपाचार्य को सबका गुरु बनाकर उन्हें सभी कुमारों को सौंप दिया। अर्जुन ने सम्यक् रूप से कृपाचार्य के निर्देशन में शिक्षा ग्रहण की तथा उनके योग्य शिष्य के पद पर प्रतिष्ठित हुए। अर्जुन हमेशा कृपाचार्य को स्नेह की दृष्टि से देखते थे किन्तु इससे अत्यधिक स्नेह कृपाचार्य का अर्जुन के प्रति था। महाभारत के युद्ध में अनेकत्र अर्जुन तथा कृपाचार्य का सामना हुआ। किन्तु जब अर्जुन के बाणों से पीड़ित कृपाचार्य मूर्च्छित होकर रथ के पिछले भाग में जा

¹ ऋग्वेद 1.12.4

² वही 10.42.3

³ महाभारत 5.48.90



वैटे। अपने आचार्य को इस स्थिति में देखकर अर्जुन विलाप करने लगे तथा उनके नेत्रों से अश्रुधारा प्रवाहित होने लगी।

दृष्ट्वा शारद्वतं पार्थो मूर्च्छित शरपीडितम् ।

रथ एव महेष्वासः सकृपं पर्यदेवयत् ॥

अश्रुपूर्णमुखो दीनो वचनं चेदमब्रवीत् ॥⁴

गुरु को पीड़ा पहुँचाने के कारण अर्जुन स्वयं को द्रोही भी कहते हैं।⁵ अर्जुन का यह अपने गुरु के प्रति अतिशय प्रेम ही है जिसके कारण वह गुरु को पीडित देखकर स्वयं भी पीडित हो रहे हैं।

अवसीदन् रथोपस्थे प्राणान् पीडयतीव मे ।⁶

अर्जुन अपने गुरु को इस प्रकार कष्ट नहीं पहुँचाना चाहते थे तथा इस कार्य को अनिष्टकारी समझते थे। अर्जुन गुरु पर प्रहार करने के कारण प्राप्त अपनी पीड़ा को पुत्रवध की अपेक्षा अत्यधिक शोक में डालने वाला बताते हैं।

शोच्यत्येष नियतं भूयः पुत्रवधाद्धि माम् ॥

कृपणं स्वरथे सन्नं पश्य कृष्ण यथागतम् ।⁷

अर्जुन गुरु पर किए गए अपने इस प्रहार को नरक जाने का मार्ग बताते हैं। अर्जुन कहते हैं कि मेरे लिए धिक्कार है कि मैंने अपने गुरु पर प्रहार किया। यथा -**धिगस्तु मम वार्ष्येण यदस्मै प्रहराम्यहम्** ।⁸

अर्जुन के कथनों से उनकी अतिशय गुरुभक्ति लक्षित होती है। परिस्थितिवश अर्जुन अपने गुरु से युद्ध कर रहे थे अन्यथा ऐसा व्यक्ति जो आचार्य प्रहार को पुत्रमृत्यु के शोक से भी अधिक पीड़ा देने वाला बताता है वह अपने गुरु पर किस प्रकार प्रहार कर सकता है। कृपाचार्य के प्रति अपने प्रेम तथा उनकी श्रेष्ठता के कारण ही अर्जुन ने पौत्र परीक्षित को शिष्यभाव से कृपाचार्य की सेवा में सौंप दिया था।⁹ अर्जुन का नहीं अपितु कृपाचार्य की भी अर्जुन के प्रति अतिशय प्रेम था। अर्जुन को शिष्य के रूप में पाकर वे सर्वदा गौरवान्वित होते थे। अनेक स्थलों पर उन्होंने अर्जुन के गुणों तथा पराक्रम की प्रशंसा की हैजिससे स्पष्ट होता है कि उनका अर्जुन के प्रति कितना प्रगाढ़ प्रेम था,¹⁰ इन उदात्त प्रसंगों से ज्ञात होता है कि अर्जुन तथा कृपाचार्य का अतिशय प्रेम प्रकट होता है। कृपाचार्य के द्वारा अर्जुन के गुणों की प्रशंसा तथा अर्जुन का गुरु कष्ट पर विलाप करना उनके श्रेष्ठ शिष्यत्व को सिद्ध करता है।

द्रोण के शिष्य के रूप में अर्जुन -विनम्रताभक्ति इत्यादि गुणों के कारण अर्जुन द्रोण के ,पराक्रम , समस्त शिष्यों में से श्रेष्ठ थे। द्रोण का भी अर्जुन के प्रति अतिशय प्रेम था, इसी के फलस्वरूप द्रोण ने अनेक शस्त्रास्त्र अर्जुन को प्रदान किए। महाभारत में अनेकत्र अर्जुन को द्रोण का प्रिय तथा द्रोण को अर्जुन का प्रिय कहकर सम्बोधित किया गया है। गोहरण के समय अश्वत्थामा स्वयं कहते हैं कि गुरु को पुत्र के बाद शिष्य ही प्रिय होता है इस कारण ,से पाण्डुनन्दन अर्जुन आचार्य द्रोण को प्रिय हैं-

पुत्रादनन्तरं शिष्य इति धर्मविदो विदुः ।

⁴ महाभारत 7 .147.12-13

⁵ वही०7 .147.17

⁶ वही०7 .147.19

⁷ वही०7 .147.20-21

⁸ वही०7 .147.27

⁹ वही०17 .1.15

¹⁰ वही०7 .158.21-22



एतेनापि निमित्तेन प्रियो द्रोणस्य पाण्डवः ॥¹¹

जयद्रथ वध के पश्चात् जब दुर्योधन द्रोण को उलाहना देते हैं तो कहते हैं कि आप हमारी उपेक्षा इसीलिए करते हैं क्योंकि अर्जुन आपके प्रिय शिष्य हैं।

भवानुपेक्षां कुरुते शिष्यत्वादर्जुनस्य हि ॥¹²

स्त्रीपर्व में गान्धारी भी मृत द्रोण को अर्जुन का आचार्य सम्बोधित करती है" -अर्जुनस्य विनेतारमाचार्यम् ॥¹³

अर्थात् द्रोण का अर्जुन प्रिय शिष्य है ,यह प्रसिद्ध था। कर्ण भी आचार्य द्रोण के अर्जुन विषयक प्रेम को जानने के कारण दुर्योधन से कहते हैं की आप द्रोण को पीछे रखकर युद्ध के लिए नीति बनाएं क्योंकि अर्जुन, द्रोण प्रिय हैं।

जानाति हि मतं तेषामतस्त्रासयतीह नः।

अर्जुन चास्य सम्प्रीतिमधिकामुपलक्षये ॥¹⁴

द्रोण भी अर्जुन के प्रति अपने इसी प्रेम के कारण उन्हें पुत्र से भी अधिक मानते थे। यथा-

यो मे पुत्रात् प्रियतरः सर्वशस्त्रविशारदः ।

ऐन्द्रिन्द्रानुजसमः स पार्थो दृश्यतामिति ॥¹⁵

दुर्योधन को सन्धि के लिए समझाने से पूर्व भी द्रोण भीष्म से कहते हैं कि मेरा अर्जुन के प्रति अश्वत्थामा से अधिक प्रेम है। पुत्र से बढ़कर प्रियतम उस अर्जुन से मुझे क्षत्रिय धर्म का आश्रय लेकर युद्ध करना पड़ेगा, ऐसे क्षात्रधर्म को धिक्कार है।¹⁶ द्रोण के कथनों से ज्ञात होता है कि जो अपने पुत्र से भी अधिक प्रिय हो अर्जुन ऐसा शिष्य था। अर्जुन के गुणों के कारण द्रोण उन्हें अतिशय प्रेम करते थे तथा पुत्र से भी अधिक मानते थे। जिस ब्रह्मशिरस् अस्त्र को द्रोण ने अर्जुन के लिए स्वयं प्रदान कर दिया था। अश्वत्थामा के याचना करने पर द्रोण ने उन्हें अस्त्र प्रदान कर दिया था किन्तु वे अधिक प्रसन्न नहीं थे। वे अश्वत्थामा से कहते हैं -

न त्वं जातु सतां मार्गं स्थातेति पुरुषर्षभ ॥¹⁷

अर्जुन के इन्हीं गुणों के कारण द्रोण ने अर्जुन से कहा था कि तुम से बढ़कर हमारा कोई शिष्य नहीं होगा-

भविता त्वत्समो नान्यः पुमाँल्लोके धनुर्धरः ॥¹⁸

अर्जुन ने जब गुरु दक्षिणा के रूप में द्रुपद को द्रोण को समर्पित किया तो द्रोण ने अर्जुन से एक गुरु दक्षिणा और मांगते हुए कहा -

ददानीति प्रतिज्ञाते फाल्गुनेनाव्रवीद् गुरुः ।

युद्धेऽहं प्रतियोद्धव्यो युध्यमानस्त्वयानघ ॥¹⁹

¹¹ वही०4 .50.21

¹² वही०7 .150.30

¹³ महाभारत11 .23.26

¹⁴ वही०4 .47.21

¹⁵ वही०1 .134.7

¹⁶ वही०5 .139.4-5

¹⁷ वही०10 .12.09

¹⁸ वही०1 .132.22



अर्जुन ने द्रोण की यह बात आत्मसात् कर ली तथा जब विराट नगर में निवास करते समय जब द्रोण से अर्जुन का सामना हुआ तो उन्होंने प्रहार करने में संकोच नहीं किया। आचार्य के प्रेम के कारण ही वे नपुंसक वेष में भी अर्जुन को पहचान लेते हैं तथा कहते हैं कि इसमें कोई सन्देह नहीं है कि यह अर्जुन है।²⁰ द्रोण अर्जुन की मनःस्थिति को भली भान्ति समझते हैं। द्रोण से युद्ध से पूर्व जब अर्जुन के दो बाण उनके पैरों में तथा दो बाण कानों को छूकर निकल जाते हैं तो वह समझ जाते हैं कि अर्जुन उन्हें प्रणाम करके युद्ध के लिए आज्ञा माँग रहे हैं।

निरूप्य हि वने वासं कृत्वा कर्मातिमानुषम् ।

अभिवादयते पार्थः श्रोत्रे च परिपृच्छति ॥²¹

गोहरण के समय कौरव सेना का संहार कर जब अर्जुन द्रोण के पास आए तो उन्होंने राजकुमार उत्तर को रथ के माध्यम से उनकी प्रदक्षिणा करने के लिए कहा।²² अर्जुन अपने गुरु का सर्वदा आदर करते थे तथा उनके गुणों से भलीभान्ति परिचित- थे। गुरु द्रोण के गुण उत्तर को बताते हुए अर्जुन कहते हैं-

ध्वजे कमण्डलुर्यस्य शातकौम्भमयः शुभः ।

आचार्य एष हि द्रोणः सर्वशस्त्रभृतां वरः ॥²³

बुद्धया तुल्यो ह्युशनसा बृहस्पतिसमो नये ।

वेदास्तथैव चत्वारो ब्रह्मचर्यं तथैव च ॥

ससंहाराणि सर्वाणि दिव्यान्यस्त्राणि मारिष ।

धनुर्वेदश्च कात्स्न्येन यस्मिन् नित्यं प्रतिष्ठितः ॥²⁴

अर्जुन ने यद्यपि द्रोण को वचन दिया था कि वे समय आने पर धर्म के पालन के लिए उनके विरुद्ध अस्त्र धारण करेंगे किन्तु अपने गुरु के प्रति प्रेम के कारण वे इसमें असमर्थ थे। वे कुमार उत्तर से कहते हैं कि मैं तभी आचार्य पर बाणों का सन्धान करूँगा जब वे पहले मेरे शरीर पर प्रहार करेंगे।

यदि मे प्रथमं द्रोणः शरीरे प्रहरिष्यति ।

ततोऽस्य प्रहरिष्यामि नास्य कोपो भवेदिति ॥²⁵

गोहरण के समय जब अर्जुन तथा द्रोण के रथ सम्मुख आए तो अर्जुन उन्हें प्रणाम करके बोले-

उषिताः स्मो वने वासं प्रतिकर्म चिकीर्षवः ।

कोपं नार्हसि नः कर्तुं सदा समरदुर्जय ॥

अहं तु प्रहृते पूर्वं प्रहरिष्यति तेऽनघ ।

इति मे वर्तते बुद्धिस्तद् भवान् कर्तुमर्हति ॥²⁶

अर्थात् शत्रुओं से प्रतिशोध लेने की इच्छा से मैं युद्ध के लिए आया हूँ तथा आप मुझ पर क्रोध न करें। मैं आप पर तभी प्रहार करूँगा जब पहले आप मुझ पर प्रहार करेंगे। अर्जुन के उपरोक्त वचनों से गुरु के

¹⁹ वही 01 .138.14

²⁰ वही 04 .39.09

²¹ वही 04 .53.07

²² महाभारत 4 .55.44

²³ वही 04 .55.43

²⁴ वही 04 .58.6-7

²⁵ वही 04 .55.45

²⁶ वही 04 .58.18-19



प्रति उनकी विनम्रता एवं आदर स्पष्ट दिखाई देता है। अर्जुन से युद्ध करते समय द्रोण केवल अर्जुन के अस्त्रों का निवारण कर रहे थे। वैशम्पायन कहते हैं कि उन दोनों के युद्ध को देखकर प्रतीत होता था कि आचार्य द्रोण बाणों का प्रहार करके अर्जुन के साथ खेल रहे थे अर्थात् योद्धा से ज्यादा उनमें वात्सल्य भाव दिखाई दे रहा था।

अर्जुनेन सहाक्रीडच्छरैः संनतपर्वभिः ।²⁷

शिष्य की उन्नति गुरु का श्रेष्ठ पुरस्कार होता है, इसीलिए जब अर्जुन के अस्त्र संचालन को द्रोण ने देखा तो वह अत्यन्त विस्मित हुए।

अविभ्रमं च शिक्षां च लाघवं दूरपातिताम् ।

पार्थस्य समरे दृष्ट्वा द्रोणस्याभूच्च विस्मयः ॥²⁸

भीष्म भी द्रोण के अर्जुन के प्रति प्रेम को व्याख्यायित करते हुए कहते हैं कि अर्जुन के गुणों के द्वारा द्रोण का आचार्यभाव जीत लिया गया है, अतः वे कुन्तीपुत्र अर्जुन का कदापि वध नहीं करेंगे क्योंकि द्रोण को अर्जुन पुत्र से भी अधिक प्रिय हैं।

नैष जातु महेष्वासः पार्थमक्लिष्टकारिणम् ।

हन्यादाचार्यकं दीप्तं संस्मृत्य गुणनिर्जितम् ॥

क्ष्माघतेऽयं सदा वीर पार्थस्य गुणविस्तरैः ।

पुत्रादभ्यधिकं चैनं भारद्वाजोऽनुपश्यति ॥²⁹

अर्जुन के प्रति द्रोण के इस प्रेम का कारण अर्जुन के गुण हैं। उनके इन्हीं गुणों के कारण द्रोण की कृपादृष्टि सर्वथा अर्जुन पर रही जिसके कारण वे युद्ध में विजयी रहे। उनके इन गुणों में गुरुपुत्र का आदर भी एक गुण था। अर्जुन ने अनेक बार अश्वत्थामा को अभयदान दिया कि यह मेरे आचार्य का पुत्र है।³⁰ द्रोण पुत्र के ब्रह्मशिरसास्त्र सन्धान करने पर भी गुरुपुत्र होने के कारण ही अर्जुन उन्हें जीवित छोड़ दिया था, जो उनकी अतिशय गुरुभक्ति को दिखाता है। अर्जुन की गुरुभक्ति से समस्त कौरव भी भलीभान्ति परिचित थे इसीलिए जब द्रोण को कौरव सेना का सेनापति बनाया गया तो दुर्योधन - कहते हैं कि द्रोण के प्रति भक्ति होने के कारण अर्जुन द्रोण पर प्रहार नहीं करेंगे।

उग्रधन्वा महेष्वासो दिव्यं विस्फारयन् धनुः ।

उग्रेभवं त्वां तु दृष्ट्वा नार्जुनः प्रहरिष्यति ॥³¹

जब द्रोण ने युधिष्ठिर को बन्दी बनाने के लिए युक्ति बनाई तथा युधिष्ठिर ने अर्जुन को समीप रहकर युद्ध करने के लिए कहा। तब अर्जुन ने युधिष्ठिर को कहा कि मेरे लिए आचार्य का वध न करना कर्तव्य है। अर्जुन कहते हैं कि गुरु का शत्रु बनने से श्रेष्ठ है कि मैं अपने प्राणों का परित्याग कर दूँ।

अप्येवं पाण्डव प्राणानुत्सृजेयमहं युधि ॥

प्रतीपो नाहमाचार्ये भवयं वै कथंचन ।³²

²⁷ वही 4 .58.49

²⁸ वही 4 .58.63

²⁹ महाभारत 5 .167.16-17

³⁰ वही 6 .73.15

³¹ वही 7 .6.10

³² वही 7 .13.8-9



अर्जुन कभी भी अपने गुरु का शत्रु नहीं बनना चाहते थे इसीलिए युद्ध के प्रारम्भ में भी उन्होंने कहा था कि गुरुओं को न मानकर मैं इस लोक में भिक्षा का अन्न खाना श्रेष्ठ समझता हूँ। यथा-

गुरुनहत्वा हि महानुभावान् ।
श्रेयो भोक्तुं भैक्ष्यमपीह लोके
हत्वार्थकामास्तु गुरुनिहैव
भुञ्जीय भोगान् रूधिरप्रदिग्धान् ॥³³

अपनी जयद्रथ वध की प्रतिज्ञा को पूर्ण करने के लिए अर्जुन जब आचार्य द्रोण की सेना पर अस्त्राघात करने को उद्यत हुए तो सर्वप्रथम उन्होंने आचार्य द्रोण से आज्ञा माँगी³⁴ यह अर्जुन की अतिशय गुरुभक्ति ही थी जिसके कारण वह गुरु से आज्ञा माँग रहे थे। गुरु किसी भी शिष्य के लिए पिता , भ्राता की भान्ति स्नेह , भ्राता तथा सखा के समान होता है। क्योंकि गुरु पिता की भान्ति रक्षा करता है तथा सखा की भान्ति सम्यक् उपदेश देता है। अतः अर्जुन द्रोण से कहते हैं कि आप मेरे पिताभ्राता , तथा सखा के समान हो।

भगवान् पितृसमो मह्यं धर्मराजसमोऽपि च ।
तथा कृष्णसमश्चैव सत्यमेतद् ब्रवीमि ते ॥³⁵

अर्जुन द्रोण को उनके पुत्र के समान संरक्षण पाने का अधिकारी तथा अपनी प्रतिज्ञा की रक्षा के लिए प्रार्थी मानते हैं। अर्जुन द्रोण से कहते हैं कि मैं अश्वत्थामा के समान आपसे संरक्षण पाने का अधिकारी हूँ।³⁶ अपनी प्रतिज्ञा की रक्षा हेतु अर्जुन कहते हैं -

तव प्रसादादिच्छेयं सिन्धुराजानमाह्वे ।
निहन्तु द्विपदां श्रेष्ठं प्रतिज्ञां रक्ष मे प्रभो ॥³⁷

युद्ध की परिस्थितियों में भी अर्जुन शिष्टाचार नहीं भूलते। गुरु को प्रणाम करना तथा उनसे आशीर्वाद लेना यह दिखाता है कि अर्जुन विनम्र तथा योग्य शिष्य थे। यद्यपि परिस्थितिवशात् वे एक दूसरे के शत्रु के रूप में उपस्थित थे किन्तु अर्जुन ने कभी भी आचार्य द्रोण की अवहेलना नहीं की। जयद्रथ वध के समय अर्जुन जब आचार्य की प्रदक्षिणा कर आगे बढ़ने लगे तो द्रोण ने कहा कि तुम शत्रु को पराजित किए बिना प्रत्यावर्तित नहीं होते हो। तब गुरु के इस वचन को सुनकर अर्जुन ने आचार्य से कहा कि आप मेरे गुरु हैशत्रु नहीं है। मैं आपका पुत्र के समा , न शिष्य हूँ। इस जगत् में ऐसा पुरुष नहीं है जो आपको पराजित कर सके।

गुरुर्भवान् न मे शत्रुः शिष्यः पुत्रसमोऽस्मि ते ।
न चास्ति स पुमाँल्लोके यस्त्वां युधि पराजयेत् ॥³⁸

गुरु के प्रति उनकी अतिशय निष्ठा के कारण जब कृष्ण ने अर्जुन इत्यादि पाण्डवों से अश्वत्थामा के मारे जाने की भ्रामक सूचना देने के लिए कहा तो अर्जुन को यह रुचिकर नहीं लगा।

एतन्नारोच्यद् राजन् कुन्तीपुत्रो धनञ्जयः ।³⁹

³³ वही०6 .26.5

³⁴ महाभारत7 .91.3

³⁵ महाभारत7 .91.4

³⁶ वही०7 .91.5

³⁷ वही०7 .91.06

³⁸ वही०7 .91.34



धृष्टद्युम्न जब शस्त्रत्याग कर चुके आचार्य का वध करने के लिए उद्यत थे, उस समय अर्जुन ने द्रुपदकुमार से कहा कि तुम आचार्य को जीते जी ले आओ, उनका वध न करना।

उक्त्वांश्च महाबाहुः कुन्तीपुत्रो धनञ्जयः ॥

जीवन्तमानयाचार्य मां वधीर्दुपदात्मज ।⁴⁰

आचार्य की मृत्यु का सबसे ज्यादा दुःख अर्जुन को ही हुआ था। वे गुरु के इस वध को रोकना चाहते थे तथा इसके लिए वे क्रन्दन करते हुए धृष्टद्युम्नके पास आने लगे थे।

उत्क्रोशन्नर्जुनश्चैव सानुक्रोशस्तमात्रजत् ।⁴¹

किन्तु तब तक धृष्टद्युम्न ने आचार्य का मस्तक काट दिया। अर्जुन गुरु को धोखा देना महापाप समझते हैं इसीलिए जब युधिष्ठिर झूठ बोलते हैं तो अर्जुन युधिष्ठिर से कहते हैं कि आपने गुरु को धोखा देकर महापाप किया है-

धर्मज्ञेन सता नाम सोऽधर्मः सुमहान् कृतः ।⁴²

गुरु के प्रति अर्जुन के प्रबल अनुराग के कारण ही जब धृष्टद्युम्न ने आचार्य का मस्तक काटा तब वे गुरु प्राणों की रक्षा के लिए पुकार रहे थे-

विक्रोशमाने हि मयि भृशमाचार्यगृद्धिनि ।

अपाकीर्यं स्वयं धर्मं शिष्येण निहतो गुरुः ॥⁴³

अर्जुन को इस बात का अत्यन्त दुःख हुआ कि इस प्रकार का गुरु थोड़े से राज्य के कारण मारा गया। यथा-

पितेव नित्यं सौहार्दात् पितेव हि च धर्मतः ।

सोऽल्पकालस्य राज्यस्य कारणाद् घातितो गुरुः ॥⁴⁴

अर्थात् जो पिता की भान्ति हम लोगों पर स्नेह रखते और हमारा हित चाहते थे, धर्मदृष्टि से भी जो हमारे पिता के ही तुल्य थे उन्हीं गुरुदेव को हमने क्षणभंगुर राज्य के लिए मारवा दिया। गुरु के वचनों को स्मरण करके अर्जुन अत्यन्त विलाप करने लगे तथा कहने लगे कि द्रोण मानते थे कि अर्जुन मेरे प्रेमवश आवश्यकता हो तो अपने पिता स्त्री तथा प्राण सबका त्याग कर सकता है। भाई, पुत्र,

पुत्रान् भ्रातृन् पितृन् दाराञ्जीवितं चैव वासविः ।

त्यजेत् सर्वं मम प्रेम्णा जानात्येवं हि मे गुरुः ॥⁴⁵

अर्जुन के इन वचनों से स्पष्ट होता है कि द्रोण को उनके ऊपर कितना विश्वास था तथा द्रोण उनसे कितना प्रेम करते थे। अर्जुन समझते हैं कि पाप के कारण वह नरकगामी होंगे।⁴⁶ गुरु के इसी प्रेम के वशीभूत होकर अर्जुन अपने प्राणों का त्याग करने के लिए तत्पर हो जाते हैं। अर्जुन कहते हैं कि एक तो द्रोण ब्राह्मणदूसरे वृद्ध तथा तीसरे अपने आचार्य थे। इस अवस्था में राज्य के लिए उनकी हत्या ,

³⁹ वही०7 .190.13

⁴⁰ वही०7 .192.65-66

⁴¹ वही०7 .192.67

⁴² वही०7 .196.35

⁴³ महाभारत7 .196.43

⁴⁴ वही०7 .196.45

⁴⁵ वही०7 .196.51

⁴⁶ वही०7 .196.52



कराकर मैं जीने की अपेक्षा मरना उचित समझता हूँ।⁴⁷ अर्जुन के प्राण त्यागने की बात को सुनकर भीम ने उन्हें समझाया तथा क्षत्रिय धर्म का पालन करने के लिए कहा।

उपरोक्त समस्त सन्दर्भों से ज्ञात होता है कि अर्जुन द्रोण के प्रिय शिष्य थे। उनके गुणों के कारण द्रोण उन्हें उनके पुत्र के तुल्य समझते थे तथा अन्य जन भी इस बात से सम्यक् रूप से अवगत थे। गुरु का शिष्य को पुत्र से अधिक मानना उसके पराक्रम की प्रशंसा करना यह श्रेष्ठ शिष्य के लक्षण , है जो अर्जुन में विद्यमान थे। गुरु का प्रत्येक परिस्थिति में अभिवादन उनके कष्ट , पर करुण क्रन्दन तथा गुरु मृत्यु पर प्राणों का त्याग करने वाले अर्जुन शिष्य के श्रेष्ठ पद पर प्रतिष्ठित है।

कृष्ण शिष्य के रूप में अर्जुन - कृष्ण समय - पूजनीय तथा गुरु थे। कृष्ण समय , अर्जुन के लिए मित्र , पर गुरु की भान्ति अर्जुन का मार्गदर्शन करते रहे। कृष्ण को अधिकांश स्थानों में अर्जुन का मित्र तथा रक्षक ही बताया गया है किन्तु कुछ प्रसंग ऐसे हैं , जहाँ अर्जुन ने शिष्य की भान्ति कृष्ण के उपदेशों को माना। महाभारत युद्ध के प्रारम्भ में जब अर्जुन मोहग्रस्त हो जाते हैं तो कृष्ण ने ही उनके मोह को दूर करने का विचार किया। अर्जुन कृष्ण के समक्ष शिष्य की भान्ति स्थिर हो गए। यथा -

कार्पण्यदोषोपहतस्वभावः

पृच्छामि त्वां धर्मसम्मूढचेताः ।

यच्छ्रेयः स्यान्निश्चितं ब्रूहि तन्मे

शिष्यस्तेऽहं शाधि मां त्वां प्रपन्नम् ॥⁴⁸

इसी शिष्यत्व भाव के कारण अर्जुन ने श्रीकृष्ण से गीता का उपदेश ग्रहण कर लिया। एक विनीत शिष्य की भान्ति अर्जुन ने कृष्ण से प्रश्न भी किए तथा उनकी बातों को स्वीकार भी किया।

अर्जुन के प्रति शिष्यत्व के भाव के कारण कृष्ण उनसे प्रेम करते थे तो एक गुरु की भान्ति उन्हें डांट भी देते थे। जब महाभारत युद्ध के पश्चात् अर्जुन कृष्ण से पुनः गीता ज्ञान को प्रदान करने के लिए याचना करते हैं⁴⁹ तब अर्जुन की इस प्रार्थना को सुनकर कृष्ण उन्हें गुरु की भान्ति डांट लगाते हैं तथा कहते हैं कि मैंने तुम्हें अत्यन्त गोपनीय ज्ञान का श्रवण करवाया था। अपने स्वरूपभूत धर्मसनातन - पुरुषोत्तमतत्त्व का परिचय दिया था किन्तु तुमने अपनी नासमझी के कारण उन उपदेशों को स्मरण नहीं रखा यह मुझे बहुत अप्रिय है।⁵⁰ गुरु की भान्ति कृष्ण अर्जुन को श्रद्धाहीन कहते हैं तथा स्पष्ट करते हैं कि उस समय मैंने योगयुक्त होकर परमात्मतत्त्व का वर्णन किया था उसे पुनः कहना असम्भव सा है।⁵¹ किन्तु एक योग्य शिष्य की जिज्ञासा के लिए श्रेष्ठ गुरु की भान्ति उन्हें अनुगीता का ज्ञान प्रदान करते हैं। एक योग्य शिष्य की भान्ति अर्जुन कृष्ण से कहते हैं कि आपने मुझे जो कार्य करने के लिए कहा है मैं उसे अवश्य करूँगा इसमें कुछ भी विचारणीय नहीं है।

अहं च प्रीयमाणेन त्वया देवकिनन्दन ।

यदुक्तस्तत् करिष्यामि न हि मेऽत्र विचारणा ॥⁵²

⁴⁷ वही 7 .196.53

⁴⁸ वही 6 .26.7

⁴⁹ महाभारत 14 .16.6-7

⁵⁰ वही 14 .16.10

⁵¹ वही 14 .16.11-13

⁵² वही 14 .52.21



युधिष्ठिर जब दिव्यलोक पहुँचे तो उन्होंने वहाँ पर भी अर्जुन को शिष्य की भांति कृष्ण की सेवा में तल्लीन देखा।⁵³

चित्रसेन के शिष्य के रूप में अर्जुन - यद्यपि चित्रसेन अर्जुन के मित्र थे किन्तु इसके साथसाथ वह - वाद्य और नृत्य की शिक्षा प्राप्त की थी। ,अर्जुन के गुरु भी थे जिनसे उन्होंने गीत⁵⁴ अपने इसी शिष्य भाव के कारण अर्जुन ने शीघ्र ही नृत्यवाद्य और गीत विषयक सभी कलाएँ सीख लीं ,⁵⁵

निष्कर्ष- शिष्य के रूप में अर्जुन का जीवन उच्च आदर्शों से युक्त तथा आधुनिक समाज के लिए प्रेरणास्रोत है। जिज्ञासुता ,आज्ञाकारिता ,कर्मठता ,शरीरमन को संयम में रखकर -इन्द्रिय-बुद्धि-वाणी-गुरु के सन्मुख उपस्थित करना इत्यादि जो आवश्यक गुण शिष्य के लिए बताए गए हैं वे समस्त गुण अर्जुन में विद्यमान थे। कृपाचार्य ,द्रोण ,श्रीकृष्ण तथा चित्रसेन के निर्देशन में अर्जुन ने साक्षात् शिक्षा ग्रहण की। इसके अतिरिक्त उन्होंने अपने पितामह भीष्मभीम ,युधिष्ठिर ,शिव ,इन्द्र ,धृतराष्ट्र ,विदुर , समय पर ज्ञान लेते रहे।-इत्यादि अनेक विद्वानों से समयशरशय्यास्थित भीष्म ने जब युधिष्ठिर को उपदेश दिए तो अर्जुन भी विनीत भाव से वहाँ पर स्थित रहे तथा ज्ञान को ग्रहण किया। अपनी विनम्रतागुणग्राह्यता तथा विनीतभाव से अर्जुन श्रेष्ठ शिष्य के पद पर अलंकृत हैं। शिष्य के रूप में , उनका जीवन सार्थक तथा सफल है एवं आधुनिक शिक्षार्थियों/शिष्यों के लिए प्रेरणास्रोत हैं।

⁵³ वही०18 .4.4

⁵⁴ वही०3 .44.9

⁵⁵ वही०3 .44.11



LALLA DED AND HER SENSIBILITY

Dr. R.P. Gangwar, Allahabad

This paper is an attempt to know Lalla Ded and to understand her plural sensibility. Lalla Ded is Kashmir's known spiritual and literary personality. The 14th century mystic Lal Ded, Lallesvari or Lalla Yogini to the Hindus and Lalarifa to the Muslims has been venerated both by Hindus and Muslims for nearly seven centuries. For most of the period, she has successfully eluded the proprietorial claims of religious monopolists. Since the late 1980s, however Kashmir's confluent culture has frayed thin under the pressure of a prolonged conflict to which transnational terrorism, state-repression and local militancy have all contributed. Religious identities in the region have become harder & more sharp-edged, following a substantial exodus of the Hindu Minority during the early 1990s & a gradual effort to replace Kashmir's unique and syncretic ally nuanced tradition of Islam with a more Arbo-centric Global template.¹ The plural sensibilities that Kashmir has long nurtured her most celebrated & non-sectarian appellation is relevant even today.

Born in a Mehatar (Sweeper) family of Dhedhara Caste² - a dalit, during the reign of last Hindu King of Kashmir Udayan Dev in Sept 1325.³ Lalla is first mentioned in the Tadhkirat-ul-Arifin (1587) a hagiographic account of saintly figures active in valley of Kashmir written by Mulla Ali Raina, brother of Srinagar's beloved saint Makhдум Saheb. This was followed 67 years later by a reference in Baba Daud Mishkati's Asrar-ul-Akbar (1654). Eight decades were to pass before a more plausible and detailed account of Lalla's life appeared in Khawaza Azam Diddamari's Tarikhi-i-Azami or Waqui at-i-Kashmir (1736).⁴

It is said that she was married at the age of 12 in Pampose & given new name Padmavati. Her domestic life was troubled because her mother-in-law & husband were very cruel and tortured her because of her mediative absorption & visits to shrines. Her mother-in-law often starved her. It was well known saying in Kashmir that whether they kill a ram or a sheep, Lalla will get a stone to eat.

At the age of 26, she left her home & family & became disciple of Saiv saint Sed Boyu or Sidha Srikantha. He instructed her in the spiritual path. As a wandering mendicant, she began to compose her sentillating, provocative & compelling poems at this stage of life.⁵ It was very difficult time for a women, so she was abused but she never cared about social sanctions and left her gurus house and set off her own.

In Kashmiri Saive lineage they were all male and house holders. A women is governed by domestic duties. As Ranjit Hoskote remarked, "Not until the mid 17th century do we find a Kashmiri Brahmin women saint - poet who received approval of her family & community for her spiritual quest."⁷ Lalla was a major presence in life and practice not only of Rup Bhawani (1625-1721), but also of a number of later Kashmiri mystics, teachers & devotional poets like Parmanand (1791-1879), Shams Faqir (1843-1904) and



Krishna Too Razdan (1851-1926). Kashmir is now almost completely a Muslim region, it is instructive to recall that Lalla is regarded as fundamental figure by Rishi order of Kashmiri Sufism, which was initiated by Nund Rishi or Shekh Nuruddin Wali (1379-1412) send by many as her spiritual son & heir.⁸ Kashmir saw very ups and downs during Lalla's time. In period of 1320 to 1339 wide intrigue, conspiracy lust for power & ambition and foreign attack. She also saw the period of Shams-ud-din, his son Ala-ud-din and grand son Shebauddin. They brought peace, prosperity & extended patronage to arts and learning.

We find poetry as 'Vakhs' on her name but it was not purely her work rather she is the person emerged from these 'Vakhs'. She was receptive to the images & ideas of her contemporary Kashmiri traditions of Saivism, Tantra, Yoga, & Yogachara Buddhism & socially acquainted with the ideas & practices of the Sufis.⁹ Thus the poetry in her name is the work of century by different people of different school and age. Her poetry is complex, multi-author-production having multi-layers. True it is that she was a wanderer & deliberately de-classed herself used the demotic rather than elite language and refused to found a new movement or join an established order.

As in poem she taught secular values saying, "Shiva lives in many places. He does not know Hindu from Muslim. The Self that lives in you and others, that is Shiva."¹⁰ She rightly observed that only bookish knowledge given by Guru is not enough. For it read more books of life experience. Even be ready to break to code in search of your self.¹¹ And make yourself wings take wing and fly & go look for friends.¹² For it never take things for granted : 'If you know the password to the Supreme Place, you can reach wisdom by breaking the rules.¹³ Need not do showing. Not matters to be house holder hermit. What matters is control of desires¹⁴ & focus on Self through wisest knowledge because 'Shiva is worshipped best when thought lights up the Self¹⁵ Strip of greed and lust and anger, polish this body, this body as bright as the sun.¹⁶ She advised to wear the robe of wisdom, brand Lalla's words on your heart, Lose yourself in the soul's light, you too shall be free.¹⁷

Very alternative approach to secularism. The offering Shiva loves most is knowledge of Self. The supreme word you are looking for is Shiva Yourself.¹⁸ Like Kabir she also preaches that The greatest scriptures is one that's playing in my head.¹⁹ And who sees Self as other, Other as Self Whose mind does not dance between opposites, he alone has seen the Teacher, who is first among the Gods.²⁰ She teaches people. "Forget the outside, get to the inside of things.²¹ She requested not to infect the heart with fear²² and determined to-

Resilience : To stand in the path of lightning.

Resilience : To walk when darkness falls at noon.

Resilience : To grand yourself fine in the turning mill.

Resilience will come to you²³“



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IMPACT OF COVID-19 PANDEMIC ON BUYING BEHAVIOR OF WOMEN IN JAIPUR : A COMPARATIVE STUDY BETWEEN ONLINE AND OFFLINE BUYING

Ms. Akanksha Ganda (Chawla)

Assistant Professor, Department of Business Administration, Kanoria PG Mahila Mahavidyalaya, Jaipur

Dr. Bindu Jain

Associate Professor, Department of Business Administration, University of Rajasthan, Jaipur

Abstract

COVID-19 officially declared a Global pandemic by the World Health Organization will likely to be one of the defining events of 2020, whose effects will last into decades. With the wide spread of the disease and no vaccine found yet, the entire country is under lockdown. Government has ordered the closure of all nonessential businesses, and people are asked to remain in self quarantine and follow social distancing by avoiding public places to prevent the spread of the disease. Shopping of only essential items is allowed, that too by maintaining a distance of atleast 1 meter and with the mask on the face while going out. With the shutdown of shops and lockdown getting extended, as the pandemic continues to spread, the buying behavior and spending patterns are observed to be drastically changing. Consumers are trying to prepare for the uncertainties by stocking up food and utility supplies as safety stock. There's a huge demand for essential items, especially the household staples, baby products and health-related goods, such as hand sanitizer, face masks, and many more. Soon, both the brick-and-mortar and online stores were burdened with this increasing demand. This study has been conducted to find out if there has been a change in the buying behavior of Women in Jaipur during this pandemic and if they have been switching their modes of shopping from offline to online because of this pandemic. The conclusive statement will help us analyze whether this will lead to a permanent change in their behaviors or not.

Keywords: *COVID 19, Pandemic, Lockdown, Buying Behavior, Offline, Online.*

Introduction

On 24 March 2020, the Government of India under Prime Minister Narendra Modi ordered a nationwide lockdown for 21 days, limiting movement of the entire 1.3 billion population of India as a preventive measure against the COVID-19 pandemic in India. It was followed by a 14-hour voluntary public curfew on 22 March, after enforcing a series of regulations in the country's COVID-19 affected regions. Ever Since then, the corona virus positive cases are increasing at a rapid rate and hence the lockdown also got extended time and again till date.



Lockdown has come in 4 different phases so far:

Phase 1: 25 March 2020 – 14 April 2020 (21 days)

Phase 2: 15 April 2020 – 3 May 2020 (19 days)

Phase 3: 4 May 2020 – 17 May 2020 (14 days)

Phase 4: 18 May 2020 – 31 May 2020 (14 days)

Phase 5: (only for containment zones): 1 June 2020 – ongoing; scheduled to end on 30 June 2020.

The Government of India has restricted the supply through e-commerce to only essential items till May 3, 2020¹. In Phase 3 of lockdown starting from May 4, 2020, the government had decided to allow e-commerce websites like Amazon and Flipkart to start delivering non-essential items in orange and green zones² (Jaipur being in red zone was secluded from this^{3,4}). However, with the release of lockdown 4.0 guidelines on May 17, 2020, E-Commerce activities for non-essential goods were permitted even in Red Zones. However, in containment zones, the central government guidelines only permit essential services.⁵

The Covid-19 pandemic has changed the way we work, shop and communicate with people. People have been asked to work from home, they are going out only to buy household essentials and are constantly worried about the risks of getting infected in crowded public places like malls and supermarkets.

The uncertain nature of the corona virus is forcing consumers to stock-up products and buy in bulk. Prior to this outbreak, customers were used to getting anything they wanted within a day or two. However, the situation has changed. Almost all the stores whether offline or online are burdened with huge demand leading to shortage of supply.

As the society is thriving for survival, consumers are likely to shift more towards digital mode of buying. This may be because of two major reasons - the tendency to avoid crowded public places and to prevent immediate contact with the virus that may be present on the surface of the objects.

To fulfil the consumer demand during this pandemic and nationwide lockdown that is extended again and again because of the continuously increasing number of corona positive cases, many offline retailers and wholesalers, including Future Group, Spencer's Retail, Metro Cash and Carry and Walmart's Best Price, have started servicing customers online, building omni-channel models to deliver both goods and groceries. Future Group, which used to service online orders for groceries only from its Easy Day stores in Delhi NCR, has extended it to 250 of its Big Bazaar stores across the country. Though it has its own delivery fleet, they have also partnered with local delivery app Dunzo and logistics player Shadowfax for pick up and home delivery of orders.

“We were able launch BigBazaar.com within 10 days and since then we’ve scaled it to 10,000 orders a day,” said Bharati Balakrishnan, senior VP, digital commerce, Future Group (Economic Times article dated April 15, 2020)⁶.



Spencer’s Retail, Kolkata-based retailer also partnered with food delivery app Swiggy, cab-hailing app Uber and bike taxi startup Rapido to help deliver orders that came via customers on its website.

“Now, during the lockdown, our OOS (out of store) business has gone up from a low single digit to double digits, thanks to e-commerce and phone orders increasing multiple times,” said Devendra Chawla, CEO of Spencer’s Retail, which operates approximately 200 supermarkets in various cities.⁶

Metro Cash and Carry, a German wholesaler launched its mobile app earlier in April, 2020 in India. Initially, there was a plan to pilot the app in Bengaluru only, but owing to the effects of the Covid-19 pandemic, the facility was open nationwide. “We are already getting more than 100 online orders from traders per store per day across the country,” said MD Arvind Mediratta.⁶

“Ticket size for essentials like groceries and pharmaceutical products has risen by over 75% during the lockdown period,” said a PhonePe spokesperson. “We are seeing over 50% increase in transactions in recharges/ DTH categories. In an interesting trend, users are recharging not only for themselves but also for family and friends.”⁷

The government of India has also made efforts to make the people of India aware of the virus and track the proximity with the infected person by going online. National Informatics Centre, Government of India developed a mobile tracking application-



Aarogya Setu meaning ‘**bridge to health**’ in Sanskrit. Using a phone's Bluetooth and location data, Aarogya Setu lets users know if they have been near a person with Covid-19 by scanning a database of known cases of infection. The data is then shared with the government to take the necessary steps to check for virus containment and take the people in quarantine/ isolation.

Other Similar Studies

A recent Mckinsey study in China suggests that consumers are likely to opt for online shopping even after the outbreak ends, for categories especially groceries and personal care. People would still avoid visiting crowded areas like malls or supermarkets and hence online buying is likely to continue for long even after the lockdown ends.⁸

According to the experts at **Infiniti Research**, An accelerated shift from store to e-commerce in grocery has been observed. E-commerce platforms show increase in sales, which is because of the new consumers trying to order grocery online. A recent report from Infiniti Research shows that in the four weeks ending March 22, 2020, a record amount was spent on groceries in supermarkets across the world, especially in the European region.⁹

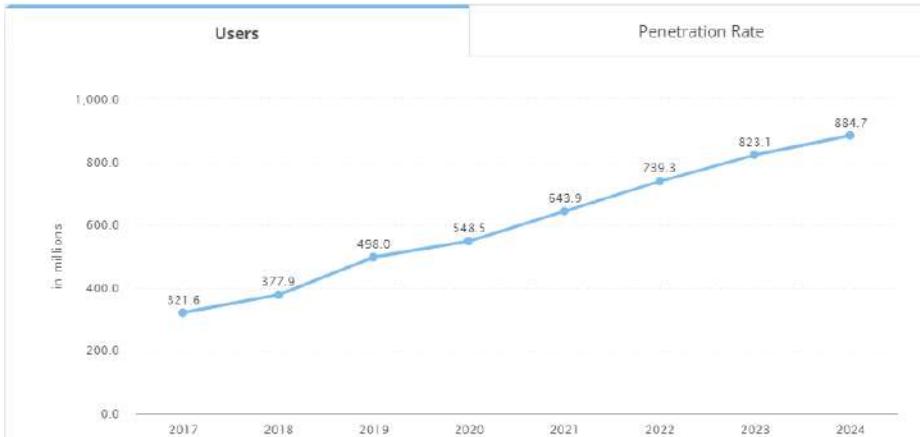
The below study by Numerator.com conducted between March 1, 2020 to March 8, 2020 on shoppers who made purchases of groceries, household, or health and beauty products in-store or online shows that 46% of the consumers made online purchases which they would usually shop in store.



Source: Numerator.com



According to a study by Statista, the number of users in the e-Commerce market is expected to amount to 884.7m by 2024.



Source: Statista (Forecast adjusted for expected impact of COVID-19) June, 2020.

Is it Safe to Buy Online during the Pandemic?

Online buying is considered safer as According to the CDC, “There is likely very low risk of spread from products or packaging that are shipped over a period of days or weeks at ambient temperatures.”¹⁰ This statement refers to those packages that were in the process of shipment for at least several days and did not come into contact with any sources of contamination after packaging.

The World Health Organization (WHO) also stated in their website that: “The likelihood of an infected person contaminating commercial goods is low and the risk of catching the virus that causes COVID-19 from a package that has been moved, travelled, and exposed to different conditions and temperature is also low.”¹¹

But it can't be said that home delivery or online options are cent percent secure. Take for instance, the Cloud kitchen startup Box8 Case in Delhi which on April 16, 2020 reported that one of its delivery partners at its Malviya Nagar kitchen in South Delhi had tested positive for the novel coronavirus putting 72 families, who received orders from it, into self quarantine, all of them subsequently tested negative. Box8, whose parent company also operates Mojo Pizza, sells exclusively on Zomato and quoted that Zomato was doing its best to take precautionary measures such as temperature checks to ensure that its riders remain safe from the outbreak.¹²

Another case from Chennai on April 29, 2020, A delivery partner with online food ordering and delivery app Swiggy was among those who was tested positive for COVID-19. He was suspected to contract the infection from his father who was tested positive and got infected from other patients while he was admitted for his



chemotherapy sessions in Rajiv Gandhi Government General Hospital. The city corporation had prepared a list of 64 houses that the man had made deliveries to in the last 10 days and contact tracing was done (As on April 29, 2020).¹³

However, if we see the offline criterion, the utmost requirement for life- the vegetables that are majorly brought from the vegetable vendors are also no more safe to buy. In Jaipur, 13 vegetable and fruit sellers and seven chemists, milk and grocery sellers have tested positive for the Covid-19 infection (*Source: India today article on May 08, 2020*).

Research Methodology

Objective of the Study:

- To Find out if there is a change in buying behavior of Women in Jaipur during the Covid- 19 pandemic.
- To find the reason for the change in behaviors, if any.
- Will the pandemic lead to a permanent change in their buying behavior even after the lockdown ends.

Research period- April 20, 2020 to June 18, 2020

Population of the study- Women consumers of Jaipur

Sample size- 50

Research Design- The study has been conducted through survey method using a structured questionnaire filled through google form. For some of them, the responses were recorded via telephonic interviews.

Limitations of the Study

The study is limited to Jaipur City. The effect of the COVID-19 pandemic is different in different cities, states and countries. The Union Health Ministry of India on Wednesday (April 15, 2020) said that the districts across the country have been categorised in three zones to identify the coronavirus COVID-19 hotspots. The districts have been divided into Red Zone, Orange Zone and Green Zone based on the occurrence of COVID-19 cases in each of them in order to efficiently manage the fight against corona virus pandemic. The colour of these zones indicate the severity of the coronavirus outbreak in that particular district (The list for these zones are revised on a weekly basis). Some of the cities have been observed as the hotspots and hence come under the red zone for COVID-19 where COVID 19 reported cases are drastically increasing. Orange zone is the one where reported cases are a very few and the green zones include those areas which have not recorded even a single case of coronavirus (thankfully). As of April 20, Jaipur is one of the hotspots of COVID-19 constantly reporting positive cases (According to an article by Economic Times, India dated April 20, 2020). Hence, the

area of study. Another limitation here is that only women from well off and educated families could be contacted for survey.

Demographic profile of respondents

➤ Age of Respondents

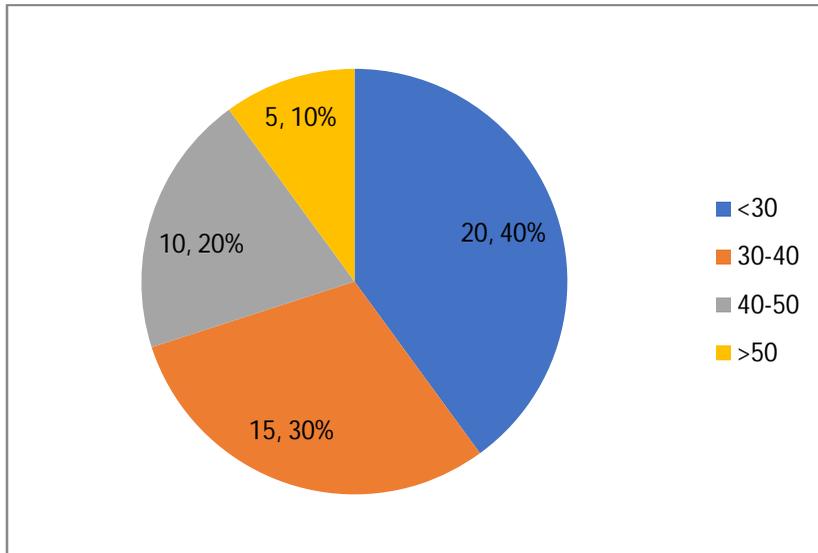


Figure 1 shows that the age of the respondents is majorly less than 30 years, 30% of them are between 30-40 years of age, and the rest are above 40 years.

➤ Marital Status of Respondents

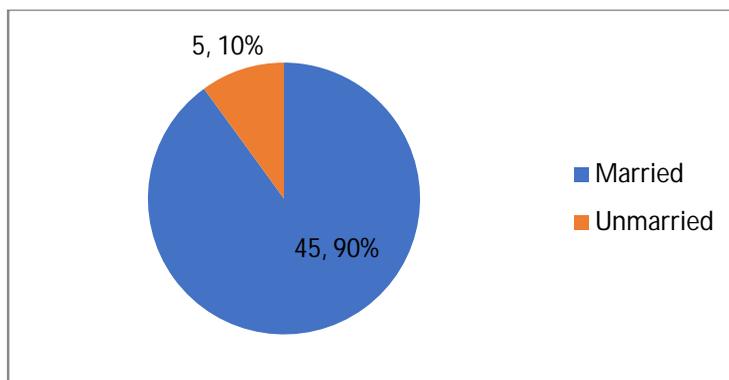


Figure 2 shows that 90% of the respondents are married and 10% of them are unmarried.

➤ Educational Qualification of Respondents

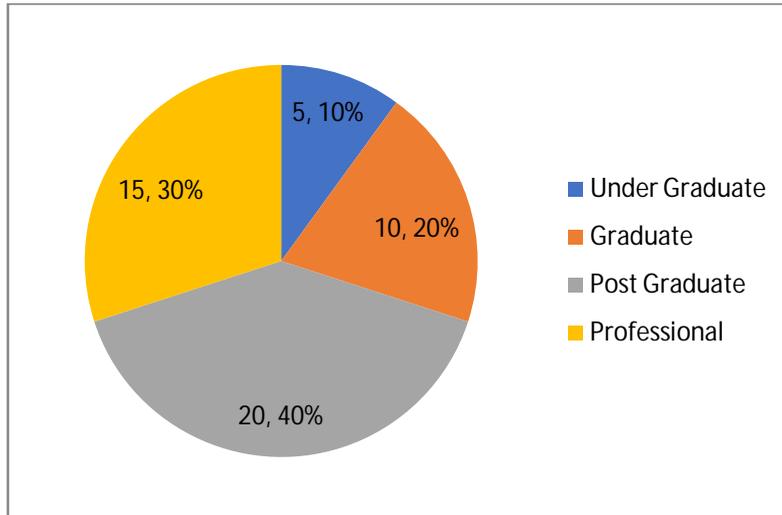


Figure 3 shows that 40% of the respondents are Post Graduates, Some of them are professionals, a few are graduates and others are only graduates.

➤ Occupation of Respondents

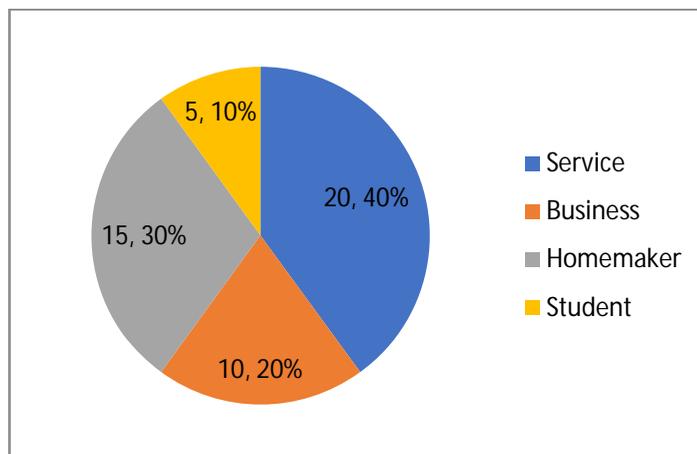


Figure 4 shows that majorly the respondents are from service sector (40%), Some of them are homemakers (30%), few of them operate a business, and others are students.

➤ Annual Income of Respondents

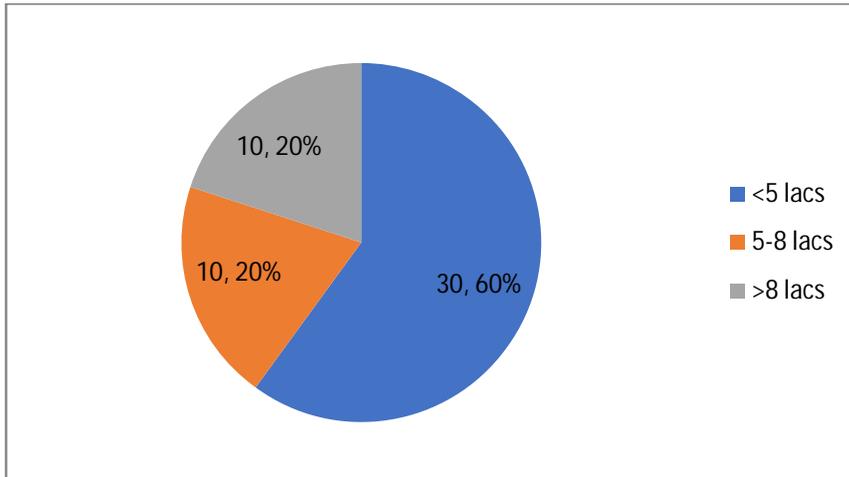


Figure 5 shows that 60% of the respondents fall under annual income below 5 lacs, 20% of the respondents fall in the category of annual income between 5 to 8 lacs and 20% of the respondents have annual income above 8 lacs.

➤ Which mode of shopping do you generally prefer?

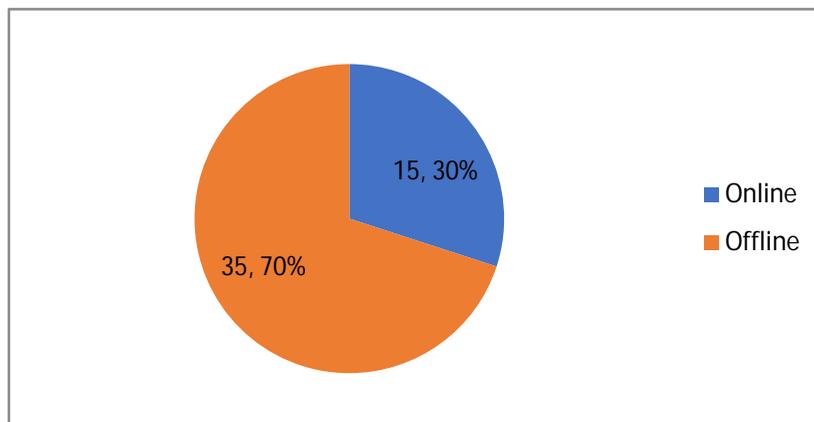


Figure 6 shows that generally 70 % of the respondents prefer offline shopping while 30% of the respondents prefer online shopping during their normal life routine.

- Do you think it is better to do Online shopping during this COVID 19 pandemic rather than going for traditional brick and mortar shopping?

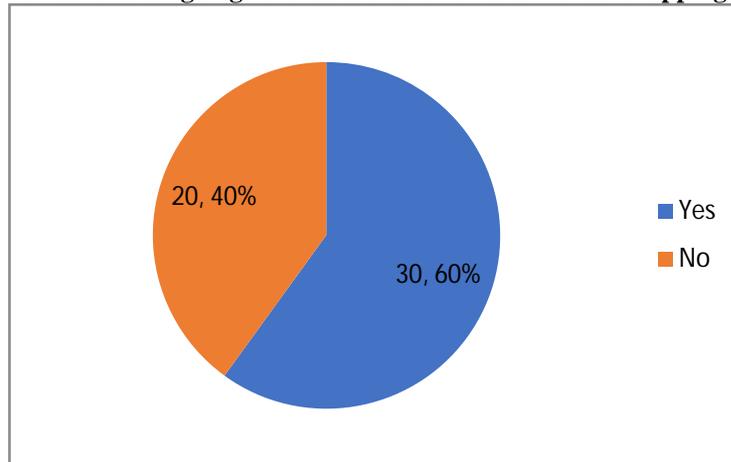


Figure 7 shows that 60 % of the respondents think that it is better to go for online shopping rather than offline shopping during this pandemic.

- Which mode of shopping- offline or online do you prefer for the following products in your normal routine?

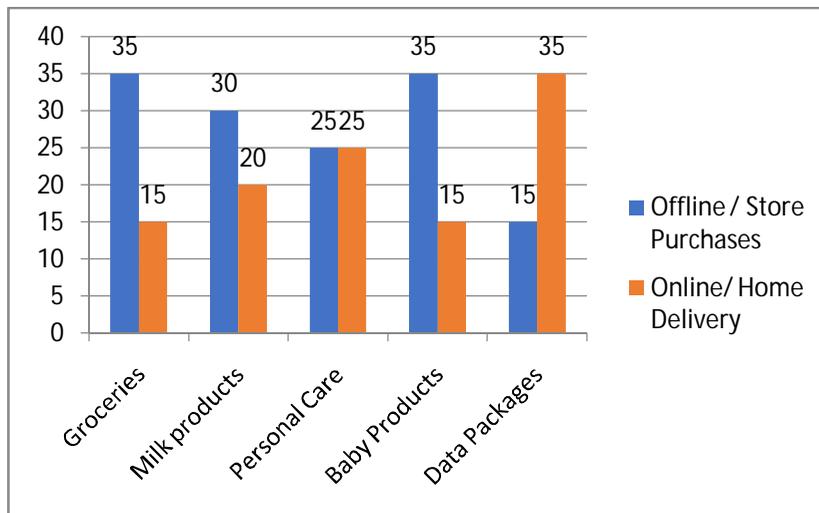


Figure 8 shows that Majority of the respondents used to go to the nearby stores/ malls/ supermarkets for buying the daily essentials whereas only a few of them used to for online or home delivery of the above products during their normal routine lives.

- Which is your preferred mode of shopping- offline or online for the following products during the COVID-19 pandemic?

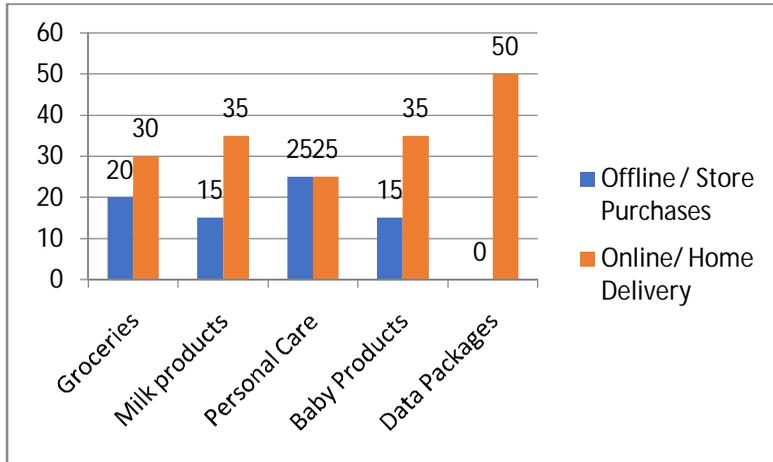


Figure 9 shows that Majority of the respondents who used to go to the nearby stores/ malls/ supermarkets for buying the daily essentials now prefer to buy those products online or get them delivered to their doorsteps in order to avoid the immediate contact with the (may be infected) products. A major shift in the buying behavior of groceries is observed during this pandemic.

- What is the reason for not preferring to buy offline during this corona virus outbreak?

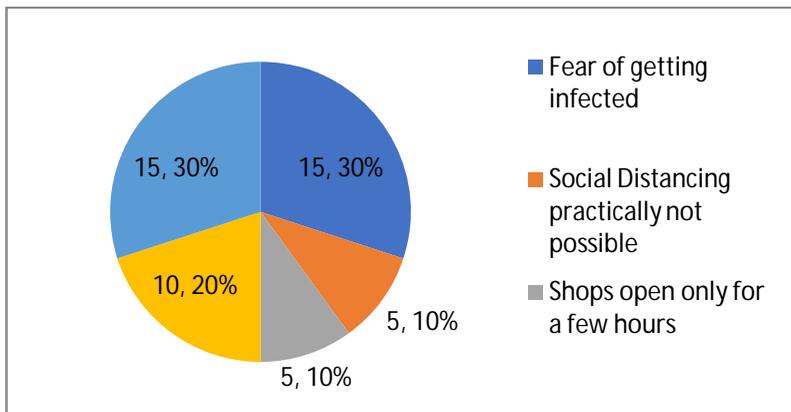


Figure 10 shows that 40% of the respondents are avoiding the nearby stores/ malls/ supermarkets for buying the daily essentials because of the fear of getting infected, some of them avoid because of social distancing not possible every time or because the

shops open at odd times- only for few hours, whereas 30% of them are still preferring the offline mode of buying.

➤ **What is the mode of payment you prefer for online orders/deliveries?**

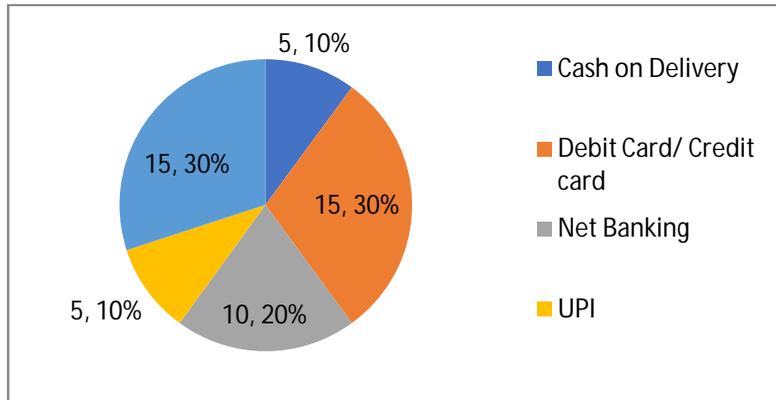


Figure 11 shows that 30% of the respondents prefer making payments through Debit/ Credit cards or through mobile wallets like paytm while doing online shopping, whereas 20% of them prefer to do net banking and the rest of them prefer either UPI. Only a few i.e. 10% of the respondent prefer Cash on Delivery because of the fear of infection from exchange of Currencies as the Virus is said to survive on the surface of Currency Notes.

➤ **What is the reason for not preferring to buy online during this corona virus outbreak?**

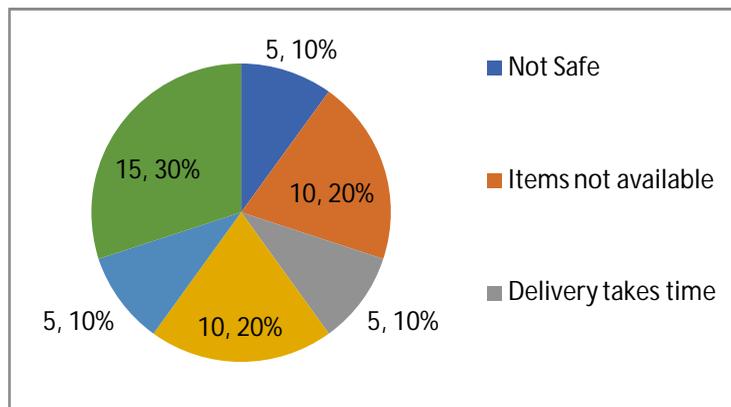


Figure 12 shows that 30% of the respondents are still preferring the online mode of buying, whereas 20% of them avoid online because they think it's not safe either (packets delivered may also contain virus). 20% of them say that the items are not

available online and the rest of them fear that the prepaid orders may not get delivered at all leading to scarcity of resources at home.

- **Do you think this pandemic is going to lead to a permanent change in your buying behaviors?**

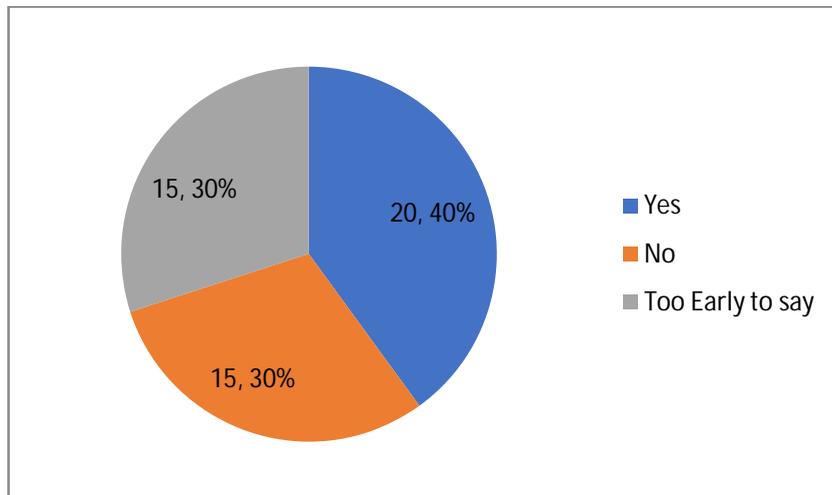


Figure 13 shows that 40% of the respondents think that this pandemic is going to bring a permanent shift in their buying behaviors, while others 30% of them think that it is too early to comment.

Findings

- Majority of the women consumers have changed their traditional brick and mortar shopping habits to either online buying or buying over telephones to get the products delivered at home.

Consumers are also using BOPIS facility (buy online, pick-up in store) (More details on BOPIS can be found on Shopify.in) to avoid being in stores for long durations.

- 60% of consumers especially married professionals in the age group of 20-40 years said that it's better to order online rather than going offline for daily essentials.

- A major shift in the buying habits of groceries, milk products and baby products is observed. Consumers who used to buy these products from nearby stores or malls or super markets have been seen buying these products from online stores/ home delivery options during the Noval Corona Virus Outbreak. This may be because of two reasons: One that they fear of getting infected outside or may be because the products are no more available at nearby stores/malls/ super markets.



- Some of the consumers who used to purchase the data packages for home entertainment and mobile recharges from offline exclusive stores are now purchasing the same through online mobile applications.
- On the other hand, there are consumers who still do not prefer online shopping because they feel that the prepaid orders may either take time to get delivered or may not be delivered at all. 20% of these consumers say that the items they want are not available online.

Conclusion

COVID-19 is the official name for the Corona Virus disease 2019. As people are following social distancing and “Stay home Stay safe” criterion, there has naturally been a drop-off in the traditional brick-and-mortar buying habits of consumers. That would seem to mean that there would likely be an increase in online shopping as people turn to online orders/ telephonic orders/ home delivery options to purchase the items they might have otherwise purchased from nearby store/ malls/ super markets.

Amazon – one of the leading ecommerce players in the country, and the world, announced that the customers are relying on them like never before in their social distancing and self-quarantine efforts.

The above statements clearly show that there has been a change in the buying behaviors of women consumers in India from Offline to Online shopping because of the Corona Virus outbreak and it is expected that the Online shopping will continue to boom even after this Pandemic ends as consumers will now be more conscious of retailers' sanitation, health and safety of products but on the same time, consumers would also want timely delivery, compensation for cancellation of order and also more secured options for digital payments.

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Link for google form for survey:

https://docs.google.com/forms/d/1DNyWLqm_GdnIA2dvAnAeVdKF09Tn8NM22OygB84C5_Q/edit



DESIGN AND DEVELOPMENT OF 180° FORKLIFT

Bhanu Mishra¹, Kunal Dhumal², Yatin Pahuja³, Yogesh Thakur⁴, Asst. Prof. Sagar Dhamone⁵

¹Student, Mechanical Engineering, Bharti Vidyapeeth College of Engineering, Lavale, Pune

²Student, Mechanical Engineering, Bharti Vidyapeeth College of Engineering, Lavale, Pune

³Student, Mechanical Engineering, Bharti Vidyapeeth College of Engineering, Lavale, Pune

⁴Student, Mechanical Engineering, Bharti Vidyapeeth College of Engineering, Lavale, Pune

⁵Asst. Prof. Mechanical Engineering, Bharti Vidyapeeth College of Engineering, Lavale, Pune

Abstract

In today's life, there is a large number of forklifts, from the massive heavy loading truck to the one that works among narrow aisles. Forklifts became one among the essential transportation tools we use in our lives. With all the forklifts in existence, we find that there are some improvements that can be made to bring the forklift to a better performance. Existing forklift design has its limitation in rotation and therefore the structure has potential safety risk. Our new design has 180 degrees rotating forks attached to truck body on both ends. Also, it's a scissor lift under the operator's cabin which improves the steadiness. There are two subassemblies: scissor lift and lifting fork; there's a complete of 37 parts within the new design.

Once the design is conceived, we calculate the mass properties of parts and subassemblies to ensure the stability of the forklift. Results show that the truck is safe to use: its center of gravity remains within the safety triangle and that we use this to urge the utmost loading capacity. Then we run stress analysis on important parts and subassemblies using finite element method (FEM). Results show that the new design is safe to use under working conditions.

Keywords: Forklift, Scissor lift, FEM.

Introduction

Because of the varieties, different shapes, different packaging of the products, loading and unloading has always been a significant process during transportation. Forklifts were naturally invented and have become the desirable solution to the present problem; they save time and space. If cargos are being organized properly, the utilization of forklifts with the proper attachments would be the simplest method to load and unload, which might make the entire process less time consuming and less labor intensive. In addition, forklifts optimize the utilization of space for storing by eliminating the necessity for several people to handle the loading and unloading operations and enabling the stack-up of products. The stacking heights of products are often up to 4~5m, some even are often as high as 10m, which brings up the use of warehouse by least 40%. Now, most of the transportation operations are using forklifts.

Forklifts fall into the category of lifting and transport machinery. A forklift encompasses a lifting system for loading packages and a mobile system for to move around, as a truck. A forklift is also called a forklift truck. It is mainly used

for loading and unloading common packaged goods. With some special attachments, it can also be used for non-packaged goods or untraditional shaped good. Figure 1 shows a forklift equipped with attachment picking up a roll of paper. This hydraulic clip attachment allows the operator to open and shut a clip around a load. Products like cartons and boxes can use this type of attachment. Figure 2 shows a forklift with a special attachment allowing the rotation of the load.



Figure 1. Forklifts with Paper Handling Chassis



Figure 2. Hyster Forklift Trucks Equipped with Heavy Duty Vista Masts

Forklifts are produced by hundreds of companies all over the world. According to the information about lift truck sales, acquired by Worldwide Industrial Truck Statistics organization, Europe, North America, Japan and China are one of the largest players within the market. Toyota 11 Industries Corporation is No. 1 among all the industrial lift truck suppliers. It has 11 categories of forklifts, from hand pallet trucks to counterbalanced trucks, from electronic to engine powered, including over 50 differing types of forklifts. Each one of them are often ordered with different capacity and loading range to fulfill different



needs. The loading capacity is from 0.75 ~ 8.5t. The maximum lifting height are often up to 14.8 meter.

Right now, all forklifts' forks are attached to the truck on one end, and therefore the lifting system use chain or cable. We feel like there are some improvements can be done, and we will focus on these two features in the rest of the research.

Literature Review

From the reference of the actual forklift named Landoll we had scaled the actual dimensions to prototype model. The mechanical structure of this prototype model is constructed with metal plates, this structure looks like a rectangular frame& the vertical moving mechanism that contains metal forks is assembled over the structure at front side. Since it operates through a remote, it doesn't contain any steering mechanism. The remote technology transfers the data by RFID. All four motors are driven through a single 'H' bridge DC motor drive package. All the four wheels are directly coupled to the motor shafts independently. The DC Motors are having reduction mechanism, there by speed is reduced and torque is increased.

System Requirements

A. Fork

The dimension of fork is 125x18x5 mm. The material selected Mild steel. The max load carrying capacity is 50N.

B. Shaft

The dimension of the shaft is 5mm diameter and 220 mm length. The material selected is Mild steel. It is an interconnection between primary and secondary chain drive

C. Geared Motor

It drives the primary chain drive at 24rpm. The torque is about 5 kg-cm and the power input is 12V DC.

D. Tensioner

It is used to maintain the tension in secondary chain drive.

E. Bearing

SKF 618/6 bearing is selected which is having I.D. 6 mm and O.D. 13 mm.

F. Wheel motor

Its function is to travel to and fro. There are 4 no of motor of 30rpm each.

Working

The proposed system is considered as motion converter, this will be created by implementing electro-mechanical techniques. The concept is about transforming the motion from one form to another required form by using suitable mechanical &

electrical devices. In this research work, the technique of transform the rotational motion in to linear motion is implemented. For this purpose, five DC motors are used for creating motion within the mechanism that functions as forklift. To work forklift in 180° angle, we are using DC motor with the help of linkage mechanism. Button will be used to turn left or right of forklift for moving in different angle. These motors are constructed with gearing mechanism & it's in-built with the motor internally. As the machine is intended as prototype module, lowest rating motors are wont to drive the mechanism.

**Design
CAD Model**

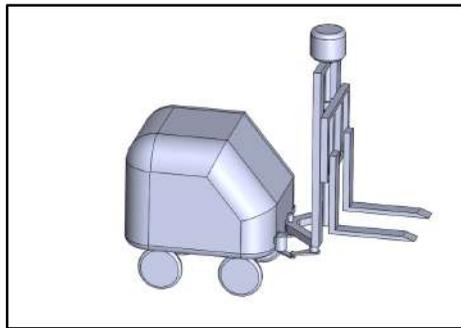
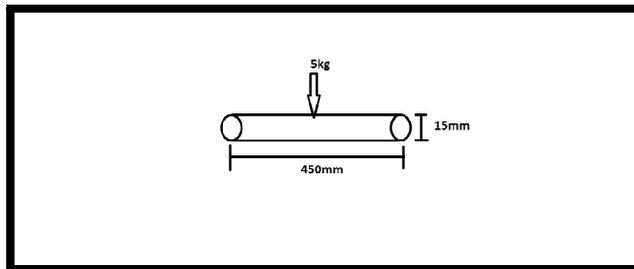


Fig 3. CAD Model

CALCULATION

Design of shaft:



$$\frac{M}{I} = \frac{\sigma b}{y} \dots\dots\dots(1)$$

Bending moment=force*perpendicular distance
 Bending moment=5*9.81*400
 =19620Nmm

For diameter 15mm,

$$I = \frac{\pi d^4}{64}$$



$$I = \frac{\pi * 15^4}{64}$$

$$= 2483.78$$

Therefore,
 $\frac{19620}{2483.78} \cdot \frac{\sigma_b}{7.5}$
 $\sigma_b = 7.899 * 7.5 = 59.24 \text{ Nmm}$
 $59 < 105 \text{ Nmm}$
 therefore, design is safe.

Power:

Output motor is 300rpm.

- Power = $\frac{\text{force} * \text{displacement}}{\text{time}}$

$$\text{Power} = \frac{1.5 * 9.81 * 10 * 0.05}{1}$$

power=7.35

- Power = $\frac{2\pi NT}{60}$

$$T = \frac{7.35 * 60}{60 * 300}$$

$$= 0.23 \text{ Nm}$$

T=2.34kg-cm

1. Torque transmitted:

Torque exerted by this magnetic force onto disc coupling is calculated by,

Torque = force*perpendicular distance

Torque = force*radius of disc

Disc diameter= 130 mm so radius will be R= 65 mm= 0.065 m

$$\text{Torque } T = F * R$$

$$T = 49.9 * 0.065$$

$$T = 3.24 \text{ Nm.}$$

So the torque transmitted by the magnetic coupling is 3.24 Nm.

2. Power transmitted:

The power transmitted by the magnetic coupling is calculated by,

$$P = 2\pi NT/60 \text{ watt.}$$

$$P = 2 * 3.142 * 30 * 3.24 / 60$$

$$P = 10.18 \text{ watt.}$$

Gear Motor:



Johnson geared DC motor has exclusive high torque, best suitable with highly developing capable robots or robotic platform, various automation purpose. Gear box is built to handle the stall torque produced by the motor, the motor Shaft comes with a metal bushing for wear reissuance.

Specifications:

1. 300 RPM 12V DC Motor with Gear Box.
2. 18000 RPM base motor
3. Shaft: 6mm
4. Gearbox diameter: 37 mm.
5. Gear: metal spur gear assembly
6. Motor Diameter: 28.5 mm
7. Length: 63 mm without shaft
8. Shaft length: 25mm
9. Weight: 165 gm
10. Torque: 9kgcm
11. No-load current = 1.5 A(Max), Load current = upto 5 A(Max)

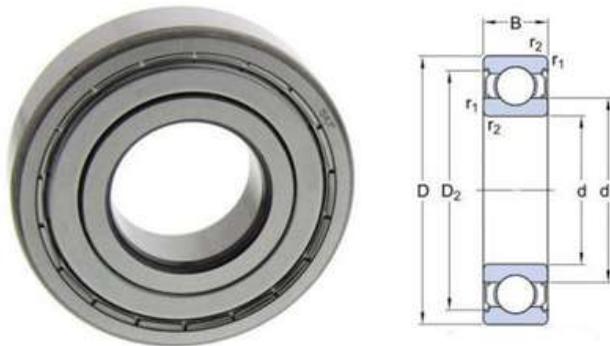
Generator

- 10RPM
- 12V DC motors with Gearbox
- 125gm weight Same size motor available in various RPM
- 5kgcm torque
- No-load current = 60 mA(Max),

Load current = 300 mA(Max)

Bearing:

Single row deep groove ball bearings are manufactured as open type (unsealed), sealed and shielded, the most popular sizes of deep groove ball bearings are also produced in sealed versions with shields or contact seals on one or both sides, the bearings with shields or seals on both sides are lubricated for life and are maintenance free. A sealed bearings seals has contact on the bearings inner and outer, a shielded bearings shield has contact on the outer only, and Shielded bearings are primarily intended for applications where the inner ring rotates. If the outer ring rotates, there is a risk that the grease will leak from the bearing at high speeds.



Principal Dimensions

Inside diameter: 15mm
Outside diameter: 35mm
Width: 11mm

Basic Load Ratings

Dynamic: 8.06kn
Static: 3.75kn

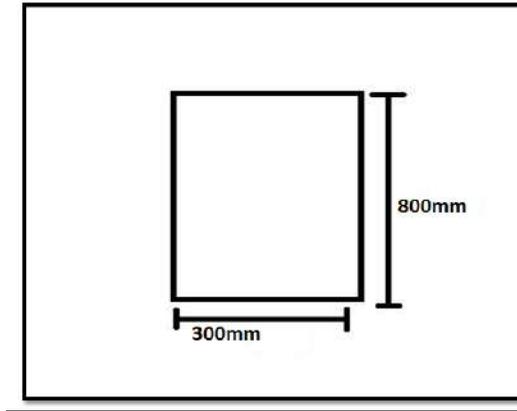
Speed Ratings

Reference speed: 43000 r/min
Limiting speed: 22000 r/min

Dimensions mm

d1: 21.7
d2: -
D2: 30.4
r1,2 min: 0.6

Design of Base Frame:



$$\frac{M}{I} = \frac{\sigma b}{y} \dots \dots \dots (1)$$

Bending moment (M) = force * perpendicular distance
 = 30 * 800 * 9.81

Bending moment (M) = 235440 Nmm

$$I = \frac{(b(h^3))}{12}$$

$$= \frac{25(25^3)}{12}$$

$$= 32552.08 \text{ mm}^4$$

$$Y = \frac{25}{2}$$

$$= 12.5$$

Therefore above value use in equation no(1).

$$\frac{235440}{32552.08} = \frac{\sigma b}{12.5}$$

Therefore, $\sigma_b = 90.40 \text{ Nmm}$
 $90.40 < 105$

Hence design is safe.

Conclusion

This project is mainly about a new design of a forklift. We did some research on the products that already exist in the market for use. Then we studied in more details about how forklifts work and the primary structure and some new design ideas were proposed. Compare to the forklift exist on the market, our design has a 180° rotate forks. the whole structure is stable and more economic and environmentally friendly.



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ORGANISATIONAL COMMITMENT OF HIGH SELF-EFFICACY AND LOW SELF-EFFICACY TEACHERS

Dr. Aradhana Sethi

Associate Professor

Mandsaur Institute of Education, Mandsaur University, Mandsaur

Abstract

The aim of the study is to determine the Organizational Commitment of high self-efficacy and low self efficacy teachers teaching in senior secondary level. The sample of the study consisted of 560 senior secondary teachers of Uttarakhand state. To measure the Organisational commitment of school teachers, standardised Organisational Commitment Scale (OCS) developed by developed by Dr. Anukool M. Hyde and Mrs Rishu Roy was used. and to measure the self-efficacy of school teachers, standardised occupational self-efficacy scale (OSES) developed by Sanjyot Pethe, Sushma Rani and Upinder Dhar was used. Teachers teaching of senior secondary classes of uttarakhand state were the sources of data. In the present study nature of data was quantitative and qualitative. The results of the study revealed that Organisational commitment of high self-efficacy and low self-efficacy teachers differ significantly. High self-efficacy school teachers were found to have better organisational commitment in the comparison of low self efficacy teachers. On the basis of analysis and interpretation of data, it has been observed that high self efficacious teachers were found to have high organisational commitment involvement in the comparison of low self efficacy teachers. This is because high self efficacy teachers would have more dedication, so they would be more committed towards their organisation.

The credit of introducing organisational commitment goes to Mowday in 1982. Organizational Commitment is an attitude about employee's faithfulness towards their organization. It shows an individual's identification and attachment to an organisation. Organisational commitment is a measure of the employee's willingness to remain with an organisation in future also..

According to **Fred Luthans (as cited in Khanka, 2003)** "Organizational commitment is an attitude reflecting employees' loyalty to their organisation and is an ongoing process through which organisational participants express their concern for the organization and its continued success and well- being."

According to Miller (as mentioned in Manetje, 2009) "Organisational commitment is a state in which an employee identifies with a particular organisation and its goals, and wishes to maintain membership in the organisation"

According to Allen & Meyer(as mentioned in pandey & Khare, 2012)) defined Organisational commitment as " psychological state that binds the individual to the organisation (i.e. makes turnover less likely)"

After having gone through above definitions, organizational commitment can be identified as the degree or extent to which employees identify themselves with and are involved with their employer organization and are unwilling to leave them. In simple



words, organizational commitment is employees' loyalty towards the organization they are working in.

It can be said that Organisational Commitment shows an individual's attachment towards the organization. A highly committed person will probably see oneself as a true member of the organization (for example, referring to the organization in personal terms such as "We provide job placement to all our students"). Such people overlook minor issues of dissatisfaction, and see themselves as the part of organization. While on the other hand, an employee who is less committed likely to see himself as an outsider (for example, referring to the organization in less personal terms like "they don't pay their employees very well"), to criticize the organisation, to express more discontentment about things, and don't see himself/ herself as a long-term member of the organization.

The success of an organisation up to a large extent depends upon its committed employees. High commitment environment improves employee retention rate, reduces operating costs and promotes employee performance and efficiency. High organizational commitment makes employees to work harder to in order to achieve the objectives of the organization. An employee with high level of organizational commitment sees himself as a true member of the organization and is more likely to embrace Organisational values and beliefs and will be more tolerant of minor sources of dissatisfaction.

Self-efficacy is also one of the factor which affect the organisational commitment of employees. Self-Efficacy is a significant trait in an individual, which helps him/ her in accomplishment of his/ her goals. Such people are likely to undertake difficult task as challenge and are motivated to master them rather than avoid them. Bandura (1986) firmly believes that knowledge, content, skills and outcome expectations are necessary for successful individual performances. (Savita, 2005)

Bandura (as cited in Oyesoji, 2007) defines self-efficacy as "belief in one's capacity to organise and execute course of action required to produce given attainments".

High self-efficacy teachers are resilient, creative and have strong sense of commitment. They are able to solve problems easily. They learn from experience and quickly recover from feedbacks whereas low self efficacy teachers have low aspirations and weak commitment. They are usually victim to stress and depression.. They have slackens interest and slow to recover from setbacks.

Need and significance of the study

Organisational commitment is the individual psychological attachment to the organisation. It reflects the strength of the bond which employees feel towards their organisation. Organisational Commitment of the teacher is also affected individual traits of teacher. Self-efficacy is also one of the trait which affect the organisational commitment of the teacher. It has been seen by reviewing literature that some studies regarding have been done of self efficacy and Organisational commitment separately. But the researcher found that very few studies have been done which studies the organisational commitment and self efficacy of teacher together.



Statement of the problem

Organisational Commitment of high self-efficacy and low self-efficacy teachers

Objective of the study

- To study the Organisational commitment of high self-efficacy and low self-efficacy teachers

Hypothesis

- There is no significant difference in the organisational commitment of high self-efficacy and low self-efficacy teachers

Operational definitions of the terms

Organisational commitment

In the present study organisational commitment refers to the loyalty of the employee towards the organisation. It refers to their job satisfaction, contentment, goal fulfilment and positive thinking towards their organisation.

Self-efficacy: In the present study self efficacy refers to the teacher's belief that he or she can influence student knowledge, values and their academics. She/he can reach even difficult students to make them learn.

High self-efficacy

Teachers having raw scores of self efficacy (83 and above) are termed as high self-efficacy teachers.

Low self-efficacy

Teachers having raw scores of self-efficacy (64 and below) are termed as low self-efficacy teachers.

Population and Sample

The population of the study consists of teachers teaching in senior secondary classes of Uttarakhand state. The sample consists of 560 teachers teaching in different schools of Uttarakhand. These teachers were sorted out as per their level in which 136 teachers had high self efficacy, 307 had moderate self efficacy and 67 were found to have low self efficacy. Only high self efficacy teachers(136) and low self efficacy teachers(67) were included in the study. Teachers having moderate self efficacy were eliminated from the study.

Scores	Levels of self-efficacy
83 and above	High self-efficacy
65 -82	Average self-efficacy
64 and below	Low self-efficacy

Tools used in the study

1. To measure Organisational Commitment of school teachers, standardised Organisational Commitment scale (JIS) developed by. Anukool M. Hyde and Mrs Rishu Roy was used. The test consists of 30 statements and has no test time limit. But an individual can complete it in 20-25 minutes. It is self-administrating tool. The reliability of the scale was .89 and the validity was .94

2. To measure the self-efficacy of school teachers, standardised occupational self-efficacy scale (OSES) developed by Sanjyot Pethe, Sushma Rani and Upinder Dhar was used. This questionnaire consists of 19 questions, having reliability of 0.98 and high level of face and content validity i.e 0.99

Sources of Data

Teachers teaching at senior secondary classess of Uttarkhand state were the sources of data.

Nature of Data

In the present study nature of data was quantitative and qualitative

Statistical Analysis

To analyse the raw score of self efficacy and Organisational commitment, mean, SD and % were used.

Analysis of Data

Different levels and percentage of Organisational Commitment of high self-efficacy and low self-efficacy teachers have been analysed and presented in the following table and graph.

Table:2 Levels of Organisational commitment of high self-efficacy and low self-efficacy school teachers

Self-efficacy	Levels of Organisational commitment					
	High		Moderate		Low	
	N	%	N	%	N	%
High self-efficacy (136 Teachers)	133	98	3	2	0	0
Low self- efficacy (67 Teachers)	54	81	6	9	7	10

Graph: 1.1





Graph: 1.2

Table 2 & Graph 1.1 & 1.2 displays the levels of Organisational commitment of high self-efficacy and low self-efficacy school teachers. The table reveals that 98% high self-efficacy school teacher’s had high level of organisational commitment, 2% teachers had moderate organisational commitment, No high efficacy teacher was found who had low organisational commitment. As far as low self-efficacy teachers are concerned, 81% high self-efficacy teachers had high organisational commitment, 9% teachers had moderate organisational commitment and 10% teachers had low level of organisational commitment. Thus it can be said that low self-efficacy teachers and high self-efficacy teachers differ in their level of Organisational commitment.

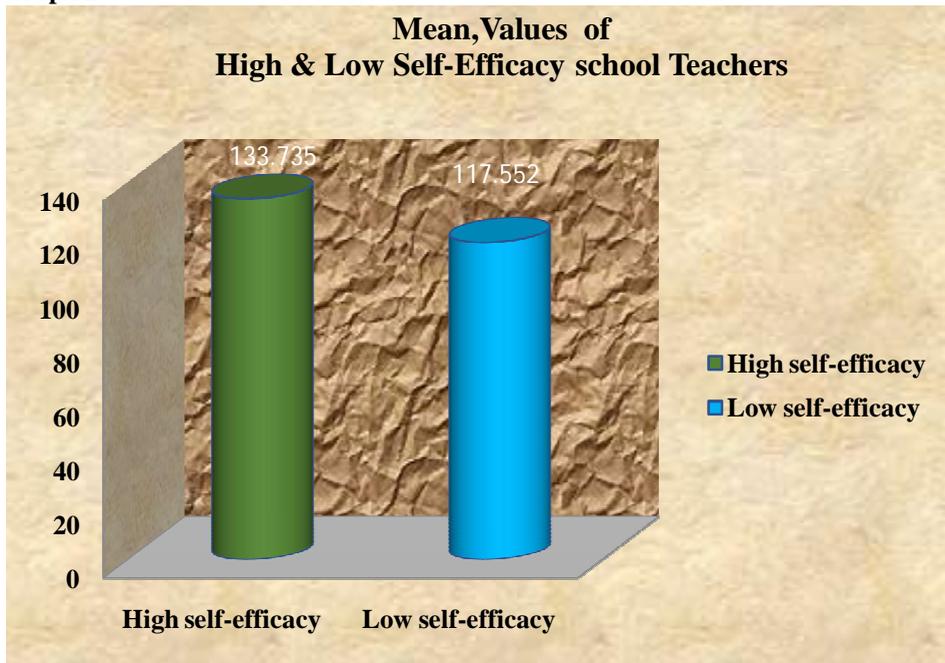
Hypothesis: There is no significant difference in the organisational commitment of high self efficacy and low self efficacy school teachers.

In order to arrive at some definite conclusions in this regard, comparison was made between organisational commitment of high self efficacy and low self efficacy teachers. The table shows the mean score of high self efficacy and low self efficacy school teachers, SD, df, calculated t-value and level of significance while graph shows mean scores of Organisational commitment of high self-efficacy teachers and low self-efficacy teachers.

Table: 4.25 Mean , SD & t-value of Organisational commitment of high self-efficacy and low self- efficacy school teachers

Organisational Commitment	N	Mean	SD	df	Table value	t-value	Level of significance
High Self-efficacy Teachers	136	133.735	10.42	201	1.97 (.05 level)	6.414	Significant at.01 Level
Low self-efficacy Teachers	67	117.552	25.45		2.59 (.01 level)		

Graph 2



From table 3 and Graph 2, it is observed that mean score of organisational commitment of high self-efficacy school teachers is higher than low self-efficacy school teachers. Graph also shows that Organisational commitment of high self-efficacy teachers is higher than low self-efficacy teachers. It is observed that SD of Organisational commitment of high self-efficacy school teachers is less than high self-efficacy school teachers. Calculated t value is 6.414 which is significant at .01 level of significance. Thus hypothesis is not accepted. It means that Organisational commitment of high & low self-efficacy teachers differ significantly. High self-efficacy teachers were found to be more organisationally committed in the comparison of low self-efficacy teachers.

Results and Findings

1. The findings of the study reported that high self-efficacy school teachers and low self-efficacy school teachers differ in their level of Organisational Commitment.
2. On the basis of analysis and interpretation of data, it has been observed that high self efficacious teachers were found to have Organisational Commitment in the comparison of low self efficacy teachers. This is because high self efficacy teachers would have more dedication, so they would be more committed towards their Organisation.
3. 98% high self-efficacy school teacher's had high level of organisational commitment, 2% teachers had moderate organisational commitment, No high efficacy teacher was found who had low organisational commitment.



4. As far as low self-efficacy teachers are concerned, 81% high self-efficacy teachers had high organisational commitment, 9% teachers had moderate organisational commitment and 10% teachers had low level of organisational commitment.

Educational Implications

The importance of a teacher in the educational process is unquestionable. The entire edifice of education is shaky if the teacher is weak and ineffective. Organisational Commitment of the teacher is an important factor for Organisational effectiveness and also school improvement. High self-efficacious teachers have organisational commitment, so at the time of recruitment it should be taken in account to appoint only high self-efficacious teachers, so that they can give their maximum output in their organisation.

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MICRO FINANCE: A CASE STUDY ON SHGs & NGOs OF KAMRUP (RURAL), ASSAM

Dr. Rajesh Deb Barman

Department of Commerce

Bodoland University, Kokrajhar, India

Abstract:

Microfinance Institutions (MFIs) provide its members with financial and social intermediation services by WSHGs and NGOs to help improve their businesses. Micro credit has worked largely through SHGs & NGOs in general and women group in particular. Since the SHGs is a small group of 10-20 persons drawn from relatively homogeneous background, the members who join the group known what benefit they would attain from the group through the microfinance. SHGs & NGOs are small, economically homogeneous and affinity group of rural and urban poor voluntary formed to save and contribute to a common fund that is to lend its members as per the group's decisions. It intends to work for the social and economic upliftment of their families and community. The research study is important to assess the impact of women of SHGs & NGOs in socio economic empowerment in the district of Kamrup (Rural) in the State of Assam. The research study findings may be useful in smooth functioning of SHGs & NGOs. More benefits SHGs & NGOs may be obtained through proper functioning of these groups and extending of microfinance to develop and promote micro enterprises.

Key Words: Microfinance, Self Help Groups, Non Government Organization Women Empowerment, Economic & Social Development.

INTRODUCTION:

Microfinance is defined by the process of formulating groups within a community to assist poverty stricken people by lending them money without the need of credit or collateral. Microfinance is a broad category of services which includes microcredit. It's a provision of credit services to poor clients. Microfinance refers to the small subject of financial service to very poor families to help them in productivity activities. Microfinance has provided to women in India an opportunity to become change of their life through income generated scope. Rural women who are forefront of the microfinance movement in our country, use of small loans are a big start of growth economy.

Micro credit has worked largely through SHGs & NGOs in general and women group in particular. Since the SHGs is a small group of 10-20 persons drawn from relatively homogeneous background, the members who join the group known what benefit they would attain from the group through the microfinance. SHGs & NGOs are small, economically homogeneous and affinity group of rural and urban poor voluntary formed to save and contribute to a common fund that is to lend its members as per the group's decisions. It intends to work for the social and economic upliftment of their families and



community. The research study is important to assess the impact of women of SHGs & NGOs in socio economic empowerment in the district of Kamrup (Rural) in the State of Assam. The research study findings may be useful in smooth functioning of SHGs & NGOs. More benefits SHGs & NGOs may be obtained through proper functioning of these groups and extending of microfinance to develop and promote micro enterprises.

LITERATURE REVIEW:

Joshi Dr. H.G. and Kumar Mr. Sotish (2016) in the study on “Economic intervention and women micro entrepreneurship: A case study of NAVODHAYA” published in E-ISSN, laid emphasis the one microfinance institute that is NAVODHAYA is providing training and skill development efforts to increased opportunities and rights to rural women.

Rehman Mr.Human and Moazzam Mr. Amani (2015) in their study on “Role of microfinance institutions in women empowerment: A case study of Akhuwat (Pakistan)” published in A research journal of south Asian studies, found that age, education, marital status and family type are influential factors that were analyzed in relation to their impact on economic, social and political, health and education empowerment of women.

Kumar Hemant, Chandwani Jyoti and Gandhi Shailesh (2014) in their study entitled “Women entrepreneurship and innovation in India: A exploratory study” published in International journal of innovation concluded that today we are in a better position where in a women participation in the field of entrepreneurship is increasing at considerable rate.

Singh Dr.Sahab, Thakur Dr.Gourav and Gupta Dr. P.C. (2013) in their study in titled “A case study on empowerment of rural women through micro entrepreneurship development” published in IOSR journal of business and management found that micro entrepreneurship is an effective instrument of social and economic development.

Rahman Shaik Shafeequr and Sultana Nikhat (2011) in their study entitled “Women entrepreneurship development through microfinance” with special reference to Hyderabad published in international journal of rural development and management studies concluded that if the bottlenecks be removed, the microfinance sector overall improving entrepreneurship development of women.

Arora Ms. Signet and Mr. Meenu (2010) in their study on “Microfinance intervention: An insight in to related literature with special reference to India” published in AJSMS, found that if we used in its true spirit, Micro-financing intervention can be a powerful instrument for economic and social empowerment with the co-operation of banking sector as well.

OBJECTIVES OF RESEARCH:

- ✓ To analysis the revenue generation through SHGs & NGOs
- ✓ To study the socio economic background of women
- ✓ To study the role of SHGs & NGOs in improvement of status of women.

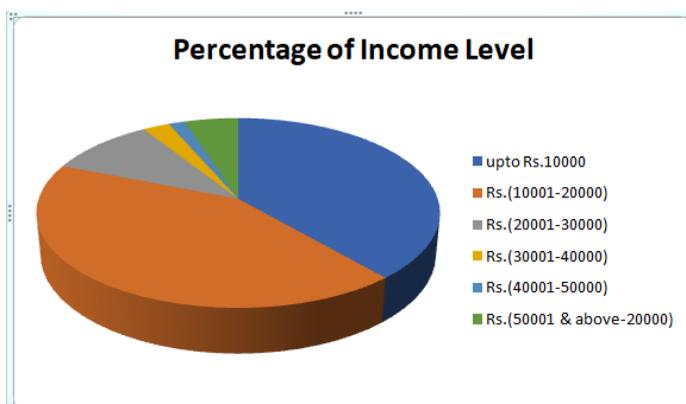
RESEARCH METHODOLOGY:

The study is based on both primary and secondary data. Primary data are collected from SHGs & NGOs members with the help of interview and secondary data are collected from various sources like books, journal, newspapers, published literature, websites etc. The contact of maximum no of SHGs & NGOs members in Kamrup (R) specifically Dimoria, Bezera, Rani, Soulkuchi, Hajo is very difficult, the size of samples are very large hence the study will be adapted and selected 25 SHGs & 15 NGOs from each 10 members is taken therefore the total size of sample 400. In order to analysis the primary data systematically, the study will be used simple statistical tools like percentages, tabular methods, diagrams etc.

DATA ANALYSIS AND INTERPRETATION:

The data which had been collected with the help of schedules and interviews have been interpreted in the form of tables with the help of percentage analysis and pie diagram as follows:

Income	No. of members	In percent
Below Rs.10000/-	155	38.75%
Rs.10001-Rs.20000/-	170	42.50%
Rs.20001-Rs.30000/-	40	10.00%
Rs.30001-Rs.40000/-	10	2.50%
Rs.40001-Rs.50000/-	5	1.25%
Rs.50001 & above	20	5.00%
Total	400	100%



Interpretation

From the above table it is clear that income group of Rs. (10001-20000) was maximum i.e. 170 members around 42.5% and income group Rs. (40001-50000) was less number i.e. 5 members like 1.25%. Also signifies that below income Rs.20000/- are



more 325 members i.e. 81.25% of sample. On the basis of education the members are less but income level more compared to others.

MAJOR FINDINGS:

- More than 40% of the members belong to 30-40 age groups. It indicates their activeness; they are participant in income generation activities for their development.
- Literacy level is not so high i.e. only 30% of people are high school educated and other members are primary educated
- Most of the women beneficiaries are married i.e. 72%. This shows that family responsibilities intend them to join SHGs & NGOs.
- Most of the women beneficiaries belong from nuclear type of families, i.e. 81. %, this shows that in nuclear family husband and children are more cooperative of women's joining to SHG & NGO then compared to joint families.
- 20% of beneficiaries are poor and 38.25% of the beneficiaries are having below Rs.10000/- income level and 42.5% of the beneficiaries have Rs.(10001-20000) income level, this clearly shows that the members have poor income background
- More than 80% of beneficiaries use Gas as cooking fuel & remaining percent i.e. 12% use kerosene as cooking fuel & 8% use wood as cooking fuel and 42% of members have owned drinking water facility and 94% of respondent are facilitated with toilet facility, this shows that members are well facilitated with good housing facility.
- Almost all beneficiaries are attending to the meeting regularly; it shows interest of members in SHGs & NGOs activities and their empowerment.

RECOMMENDATION & SUGGESTIONS:

The present research study has been observed the performance of SHGs & NGOs. The impact of SHGs & NGOS on economic empowerment of beneficiaries

- Most of the beneficiaries are poor in education and unaware about Govt. skills concerned department should organize frequent awareness camps to convey about the Govt. schemes of microfinance for the benefit of the society.
- The factor responsible for the poor performance of some SHGs & NGOs should be investigated, examined and analyzed systematically to resolve the emerging problems and difficulties faced by SHGs & NGOs.
- More research should be carried out to assess the impact on microfinance through SHGs & NGOs.
- The group members should be properly trained and skill them with leadership qualities.
- More emphasis given the conduct seminars, workshops, conference for development activities of SHGs & NGOs.
- More training programs are conduct at Block level, districts level, so it is difficult for all members to take the benefit of it. So better to arrange training at the place where it is convenient to all beneficiaries.



- For empowerment of rural women necessary to frame effective development policies particularly for women.
- To supplement their income the authority concerned has to take necessary steps to give loan facilities to start small business in rural area.

CONCLUSION / SUMMARY:

Women play a crucial role in the economic development of their families and communities but certain obstacles such as poverty, unemployment, low household income and societal discriminations but Microfinance contributes to rapid socio-economic growth by leveraging neglected areas of the economy through providing them financial assistance and helping them to finance their own projects and increases their income. SHGs & NGOs are plays a significant role for the development of individual group and society as a whole. More trust needs to be given in the promotion of SHGs & NGOs their coordination and endurance without sufficient financial aids their development will not be a reality, banks and Govt. agencies involved into the promotion and development of SHGs & NGOs should make committed involvement in making this methodology of “All for All” a successful exercise and make a role model for other districts too. SHGs & NGOs will go a long way in eradication of poverty and their improve the standard of living of the poor and rural mass.

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LEARNING FOR NOW AND THEN FOR LIFETIME

Dr. Suja K
Counsellor (Freelance)
Bengaluru, Karnataka, India

ABSTRACT:

Knud (2010) opines that the issue regarding learning transfer has been a hurdle for all who engage in education. Whatever has been learnt in one situation may be difficult to retrieve and apply in a similar or different situation. Transfer of learning is the ability of a person to make use of his /her past experiences and learning into new situations. During the phase of formal education, a student cannot be taught all that is necessary to meet and encounter the day to day life situations. Educators and psychologists give great significance to transfer of learning because the primary goal of formal education is to equip students to transfer to their workplaces and use in life situations the skills and knowledge that they have acquired over the years. Thus the emphasis of formal education is that whatever a child learns inside the four walls of the classroom should be applied to the real life situations. E.g., we teach civics in the classroom with an assumption that it will help the child in his/ her future social life. If the learners don't use that which is learnt in the classroom in the day to day affairs it will not be meaningful. This article, discusses transfer of learning in detail, as a learning for now and then for lifetime.

Key Words: Transfer of Learning, Skills, Social Life, Education, Life Situations, Formal Education

INTRODUCTION

Have you ever noticed a person who rides a bicycle learns to ride a scooter/ motor cycle easily? Likewise a person who plays harmonium learns piano easily. Why it is so? This article will discuss this in detail.

Transfer of learning is an important concept not only in education but also in our everyday lives. It is the ability to use skills and knowledge acquired in one context to other contexts. For example, knowledge of one language may help an individual to learn another language. Transfer of learning takes place when, an individual's skills and knowledge to do a task makes it easier for him/her to learn another task. Transfer of learning happens when previous knowledge and skills influence the way in which new knowledge and skills are learned/ acquired and performed. Sometimes previous learning enhances the learning in the new context and at other times it inhibits the same. However, it has great significance in the learning process.



THEORETICAL FRAME WORK

Meaning and definition

Peterson (1957) describes “transfer is generalization, for it is the extension of ideas to a new field.”

According to Crow and Crow (1967), “The carryover of habits of thinking, feeling or working of knowledge or of skills from one learning area to another usually is referred to as the transfer of training.”

Ellis in his book, *The Transfer*, defines that, “transfer of learning means that experience or performance on one task influences the performance on some subsequent task.” Lovell (1970) defines, “Transfer of learning is the effect which some particular course of training has on learning or execution of a second performance. Such an effect may be of a helpful nature or it may hinder.” According to Cormier & Hagman (1987) transfer of learning occurs whenever prior-learned knowledge and skills affect the way in which new knowledge and skills are learned and performed. According to Oladele (1998) transfer of learning is the effect of prior learning on the present. Learning is a meaningful process when the past learning smoothens and eases the progress of something else. In short, the carry-over of experiences, knowledge and skills from one learning area to another is referred as the transfer of learning.

Theories of Transfer

What educational fundamentals shall be? And how they may be expected to function? etc., are some of the concerns of educators and psychologists from time immemorial. Various theories of transfer of learning have been evolved and many discussions and experiments are still in progress in this particular area. Major theories on transfer of learning are as follows:

1. Theory of Mental Discipline
2. Theory of Identical Elements
3. Theory of Generalization
4. Theory of Transposition
5. Theory of Learning to Learn

Theory of Mental Discipline

This theory is considered as the oldest of all transfer of learning theories. The basic premise was that, mind can be trained by physical exercise just like other parts of the body. There were two forms of mental discipline; i) Classicism of Plato, which stated that mind was best trained by studying the classical languages like Latin, Greek etc. and ii) faculty of psychology, which believed that mind is made up of faculties like perception, memory, imagination, reasoning, judgment etc. which were analogous to muscles and that exercise tended to strengthen them. This theory had great influence in the curriculum formation in 19th century and some influences still exists in Western schools. The essential requirement of this theory is to provide hard intellectual exercises to the learner in order to train one’s mental faculties. Subjects such as Latin, Greek, Sanskrit and Mathematics were supposed to be the best ones to train various mental faculties of learners. It also believed that transfer is automatic and properly trained and strengthened faculties function spontaneously in all situations.



According to this theory, for example, if the memory of a person is strengthened or improved, to a great extent, through memorization of long and difficult poems, then it can prove useful in memorizing dates, names, formulae, figures and, in fact, anything and everything that involves memory. This theory claimed that reasoning and imaginative powers developed through the study of geometry can be used in solving various problems in life which demand a good deal of reasoning and imagination. Advocates of this theory argue that the study of practical and utilitarian subjects were unnecessary since through mastery of the well selected subjects having disciplinary value, learner could be prepared to meet all situations adequately.

Theory of Identical or common Elements or Components

The theory of Identical Elements was developed by Thorndike and according to this theory the factor of resemblance or similarity between situations has considerable effect on the amount and kind of carry over that can be expected from one situation to the other. According to this theory the transfer of learning is facilitated in the second situation to the extent that it contains common elements or factors which occurred in the learning situation earlier. These common elements or factors may be in the form of procedures, concepts, actions, facts, attitudes, principles, techniques as well as of others.

As the similarity between two situations increases the amount of transfer also increases and vice versa. When two activities have common factors and the total situations have common significant characteristics, the transfer will be maximum. According to Thorndike, either of the two factors such as matter or substance and method or procedure play an important role in the process of transfer. If the matter is the same or similar both in Telugu and Hindi, learning of one facilitates the other. Hemming of a towel may be expected to transfer to hemming of a bed cover, because both require the same procedure or method.

The theory of identical elements gave birth to a new theory called utility theory of education. Now educators and curriculum constructors are taking special care in selecting materials and those experiences which had identity either in matter or method. Topics from different subjects were selected on the basis of their utility in day today life.

Theory of Generalization

Charles Judd in his theory of generalization (1908) advocated that transfer can be facilitated by teaching students, general principles rather than specific solutions. He gave emphasis on human intelligence which enables an individual act accordingly by understanding and applying knowledge and principles from one situation to the other. The studies conducted on this area revealed that the transfer was greatly facilitated, in case of generalization. Generalization is the ability to systematize, utilize and apply the learned materials in specific situations which determines the degree of transfer.

Theory of Gestalt an Transposition

The Theory of Transposition was first developed by Max Wertheimer and other Gestalt Psychologists and this theory is also called patterns of experience. According to Gestalt psychologists believe that the learning of a Gestalt (Gestalt is a whole) or a meaningful configuration presumes a kind of organisation that, as learning takes place and modifies



the organism. To learn means to form or to complete Gestalt pattern or configuration which has meaning. In this process number of mental operations are involved. They are grouping, re-organization, process of inner relatedness of form and size, inner structure and constituent thinking. The factors that influence that transposition are:

- The most effectively the first task is mastered, the more transposition is likely to occur;
- Increased incentives related to the first task also improve transposition probably because they result in greater attention on the part of the learner and the better utilization of the information;
- Practice with transposition tasks also increases the amount of transposition.

Theory of Learning to Learn

The theory of Learning to Learn argues that practices of related or similar tasks bring improvement in the ability of an individual to perform better. Practice not only makes the individual more accurate but also enables them to solve problem faster. This gradual and progressive improvement in the performance of the learner is a form of transfer called as learning to learn. Even though previous experiments were conducted in this area, the experiments conducted by Harlow (1949) called attention to the significance and relevance of this principle in the human learning.

Areas of Transfer of Learning

Transfer of learning can take place in many areas such as:

- Transfer from knowledge to knowledge – Arithmetic learnt in the school is applied in handling money in grocer's shop.
- Transfer from knowledge to skill- The technique of preparing oxygen gas learnt in the classroom is applied later when working in an industrial unit.
- Transfer from knowledge to behavior- The principles of ethics we learnt from books and teachers are applied in our real life situations.
- Transfer from attitude to attitude –If I believe in the following attitude –All humans are equal in the midst of diversities. This attitude will lead me to believe and act according to it.
- Transfer from attitude to behavior- If my attitudes are favorable towards one ideology that will lead me to stand for it.

Forms of Transfer

The following are different forms in transfer.

- Lateral transfer: It is the most familiar one where the skills and knowledge taught in the classroom are used in situations outside the school.
- Sequential Transfer: Learning at one level of behavior facilitates new learning in the next level e.g., skill of addition helps in learning multiplication.
- Horizontal Transfer: Lateral and sequential transfers are called horizontal transfer that is, learning transfer from classroom to the outside of the school and from lower level to higher levels are together called horizontal transfer.



- Vertical Transfer: Learning at one level facilitate a higher level of learning like knowledge of addition and subtraction can be used in other subsequent levels where these operations can be used.
- Bilateral transfer: Our body is divided into two laterals, right and left. When training provided to one lateral automatically transfers to the other. Such a transfer is called bilateral transfer. The training of the right hand in writing transfers to the left hand. Without any training we can also write with our left hand.

Types of Transfer

There are different types of transfer such as positive transfer, negative transfer and zero or neutral transfer.

- Positive Transfer: In this type of transfer, the previously learnt knowledge and skills facilitate the learning of a new task. The influence of previous learning makes the subsequent learning easier and comfortable to the learner. E.g., fingering skills on a Typewriter facilitates working with computers.
- Negative Transfer: In this type of transfer, the previous knowledge and skills or prior experience in one task inhibit or interferes the new learning. E.g., skills in ball badminton interferes with the learning skills in shuttle badminton.
- Zero Transfer or Neutral Transfer: In zero transfer, the previous knowledge, skills and experiences do not have any influence in the new learning. E.g. skills to run a machine does not help in learning to drive a car.

Factors and Conditions of Transfer

Various factors and conditions affect the amount and nature of transfer of learning.

- Similarity in terms of matter, method, principle, ideals etc. facilitates and increases the transfer.
- Intelligence and innate efficiency of the learner is closely related to the rate of transfer.
- Nature of instruction or training given to learner.
- Adequate practice done by the learner in the in-between-times.
- Time interval between the past and present learning.
- Transfer depends upon the use of facts learnt.
- Practical capability and use of the previously acquired knowledge of the learner.

Transfer as an Educational Objective

Transfer of learning is one of the major concerns of educators and psychologists. Our previous learning experiences play a crucial role in the latter learning. The basic assumption behind all educational programmes is that the knowledge, skills, experiences etc. developed by a learner in the school context should be transferred to various situations in our daily life.

Transfer of learning and School Subject

There are educators who argue that some subjects are superior to others in developing mental abilities. Thorndike conducted an experiment on 13,500 pupils in grades X, XI, and XII to find out to what extent an years training in each of the many high school



subjects would increase abilities in series of tests of selective and relational thinking. Commenting upon the results of these investigations Thorndike says, “The differences are so small and the unreliability are relatively so large, that the influence of the subject studied seems unimportant. Indeed, one subject was about as good as another”. No one has superiority as an easy and sure means of developing ability to think in general. The degree of transfer of learning depends on the applicability and utility of the outcome of learning in new situation. Teachers have to teach different subjects in correlated manner, that is, correlation with the present life situations and pupils have to be encouraged to use what they have already learnt in a variety of situations.

LEARNING FOR NOW AND THEN

Educational objectives play an important part in the teaching-learning process. Bloom’s Taxonomy Revised should be the guide for teachers when writing their objectives for teaching. They have to make plans accordingly to enhance learning through remembering information, understanding it and applying in similar situations. By analysing, evaluating and making judgement they create something novel out of it and thus transfer of information into creation of something by learner as his/her own. Teacher needs to acknowledge and consider the learning needs of the students, their interests, previous learning experience as the context to enhance transfer of learning. Gaff (2010) pointed out the need for more discussions on learning transfer and remarked that teacher’s goal is not only to improve the performance of students now or in the immediate future but to equip them to develop necessary skills that they can carry over to experiences outside of classroom or school or further future. For example the critical thinking and problem solving skills students learned in their younger age will help them in future to use in varying situations in their life.

Transfer of Learning for Now

Effective teachers have a clarity in their objective and they know the goal of a particular activity. Identical elements should be identified and relationship should be pointed out. Attention must be given constantly toward the similarity that exist between school and outside school experiences. Teachers provide extensive practice opportunity with original task in order to increase positive transfer to a subsequent task and a variety of well-chosen examples and illustrations will be included for better results. Flexible curriculum with carefully constructed materials must aim the day-to-day life and needs of the learner. Good classroom organisation and a ‘positive attitude’ from the teacher help the students to try out what they learnt without fear of mistake, which will result in ‘carry-over effects’. Since competent teachers build a rapport with their students, they have confidence in doing things and they believe that their teachers are with them to support as when needed. Extrinsic motivation and conducive environment are significant factors to experiment and to try out new ideas. Realistic and immediate feedback and evaluation at the right time will help in improving the learning experience. Teachers should be a role model to the learners and give them encouragement whenever it is due. They should provide opportunities like project based learning and group tasks. In a democratic classroom where students are free to ask questions, they acquire self-confidence to engage in ‘hands on learning activities’ and become fearless even to make mistakes.



During the Covid-19 pandemic teaching and learning process happens through virtual platforms, there are chances of passive and rote learning, if we are not able to handle it carefully. At the present scenario of pandemic, teachers and educators should develop various strategies to engage learners in the most effective way possible such as graphic visuals rather than texts in presentations, group tasks, self-reflection, post- test after each learning session etc. These can be used to increase the learning transfer from one context to another.

For an intelligent learner it is easier to generalise experiences and to perceive relationship between two situations than for a lesser gifted one. Attitude of the learner towards the subject, teacher and school plays a vital role in the transfer of learning. When a student finds school as a comfortable place to learn and grow, the transfer of learning will be an easier task. We should also foster an attitude of transferability among students. Genuine need, interest, and background of the learners matter a lot in learning. Intrinsic motivation of the learner is very much necessary for the transfer of learning. Active involvement and participation of the learner and their realistic goals are important in the learning process.

Learning for Then

Deanne Camp (2012) stated in his study that when something is learnt once, it can be used from then on according to the need, it did not stop when a student entered in to a higher grade or to another phase of life. An efficient teacher makes follow-up, progress check and revisit if needed to evaluate the performance of his/her students. They also provide support to apply learning in different contexts.

Dorn, French and Jones (1998) remarked that Instructional interactions designed by teachers provide opportunities to transfer existing and previous learning such as skills, strategies and knowledge to new and diverse situations for a new problem solving activity. Teachers should make students to learn how to chunk or sort ideas as a strategy from early grade onwards.

Students should be able to carryover class room learning to real life scenarios. Teachers should be supportive in students' endeavours and be able to appreciate and acknowledge students' accomplishment such that they will become more motivated for future tasks. Learning is a lifelong process, even though formal and intentional learning cease at a certain point in one's life. Incidental and contextual learning through diverse situation will progress throughout the lifespan, till last breath of a person. Students should keep an action plan and monitor their own progress.

CONCLUSION

Transfer of learning is a major concern among educators and psychologists. The 'carry over effect' of knowledge and skills from one learning area to another at any phase of life is usually referred as transfer of learning. The influence of a previous learning on the subsequent learning and different life situations or from inside school to outside school experiences etc. are examples of transfer of learning. Learning is not merely for passing an examination but for a better living. Transfer of learning can be positive or



negative or neutral. A teacher should make deliberate and conscious effort to direct the attention of the students between school and out of school experiences. Effective methods of teaching and proper guidance to students in their learning to recognize the extent to which learning in one area is related to and can improve learning in other areas or aid them in adjusting successfully to the present and the future life demands.

As the world goes through an unprecedented crisis of the COVID 19 pandemic, learning experience has taken a new twist from physical classrooms to virtual, blackboards to digital screens etc. Here, our methods of teaching and learning have to be radically restructured in order it to be truly learning for now and for then.

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DIDACTIC FABLES AND DETAILED OBSERVATION OF "DHARMA" THROUGH SANSKRIT, TELUGU AND HINDI LITERATURES – A STUDY

¹Dr.D.Jeevana Sri, ²Dr.V.Kanchanamala and ³Ch.Mahesh
¹Reader in Sanskrit, ²Lecture in Hindi, ³Lecture in Sanskrit
VSM College (A) Ramachandrapuram

INTRODUCTION

The word Dharma comes from the root "dhr" meaning to uphold, to support or to sustain. Dharma is the firm foundation upon which entire universe stands. Here dharma means righteous behavior based on truth and knowledge of the unity in spite of the diversity, and capable of bringing the highest good to the whole creation.

In Sanskrit the origin of story literature including the popular tales and the didactic fables can be traced to Rigveda. Sanskrit story literature is synthesis of various aspects of political laws in the widest sense of the term covered by the Indian conception of dharma. The society depicted in story literature is flexible yet restricted to the path of dharma. Ancient story literature highlights on moral and ethical values for sustaining and developing a strong sense of values, righteousness and morality.

SANSKRIT FABLE LITERATURE

The Sanskrit literature is a treasure house of numerous branches of knowledge. One of the branches, though appeared to be less important, is the *Niti-katha-sahitya* or fable literature.

The *Katha sahitya* or narrative literature may be divided into two parts; one is *Katha* type (based on poets imagination), and the other being *Akhyayika* type (based on history).

Rgveda is the primary source of fable literature in Sanskrit. Describing the valourous deeds of the Indra, Visnu, Agni, Rudra etc., the Rgvedic hymns constitute the mantras narrating the stories of the kings, the seers, the gods, etc. Of course, the purpose behind introducing such stories in the *Rgveda* could be to raise the importance of the particular subject in the respective context.

As far as the elements of fable literature in the post-Vedic period is concerned, one may trace the *Aranyakas* and the *Upanisads* as being its sources. Of course there are some fragments of fable literature in the *Aranyakas*; while the *Upanisads* are the systematic texts wherein significant elements of fable literature are available. One might say that in the post-Vedic period a preceptor used to instruct his disciples the teachings of *Vedanta* by means of narrating a relevant story in order to attract the mind of the disciples. Hence even the major *Upanisads* known for their philosophical doctrines, abound in narrative aspects. In this context, the *Talavakara Upanisad* belonging to a branch of the *Samaveda*, opens with narration of a legend in a dialogue form.



Mammata states, the advice of an ethical teachings is one of the purposes of *Kavya* literature in Sanskrit. In different branches of *Kavya* literature, thousands of beautiful verses dealing with ethics are available.

Simhasanadvatrirsika or Vikramacaritra :It is a collection of thirty-two tales. The throne was a gift from Indra to Vikramaditya and when Salivahana vanquished and killed

him in battle, the throne was buried in the earth. King Bhoja by chance unearthed it, and as he was ascending the throne, images of maidens sculptured on the throne became animated and related the tales in praise of Vikramaditya to Bhoja and regained their liberty.

Sukasaptatikatha : This is a collection of seventy clever stories of erotic nature but of ultimate didactic import. It is said that Narada related the stories to Indra in his assembly in the form of parrot and that any one who hears the story attains all ends. Once Devadasa kept a parrot and when the king sent him away to a distant country with intent to seduce his wife, the parrot to whom Devadasa entrusted the care of his family began to relate each night one story to her, keeping her interested in it till dawn, and by the end of seventy stories the husband returned and all was well.

Vetalapancavimsati : This is a series of twenty-five stories, very old in origin. Ksemendra and Somadeva relate the same stories in their poems. Independently, we have versions by Sivadasa in prose and verse, and by Jambhaladatta in prose and one anonymous in prose.

Kalikacaryakatha : In prose it gives the tale of Kalikacarya, a Jain *Sthavira*. Samayasundara, pupil of Sakalacandra, composed it. It narrates also the ancient tales of the establishment of the Vikrama and Saka. According to it, Saka kings took their name from the Saka coast or bank and were defenders of the Jaina faith until Vikramaditya conquered them. But one hundred and thirty-five years after that conquest, there was a Saka king who destroyed the successor of Vikramaditya and set up an era of his own.

Brhatkatha of Gunadhya is the earliest regular collection of fables. Gunadhya is considered on par with Valmiki and Vyasa. It is a rich collection of hundreds of interesting stories. Basing on this, Ksemendra of Kashmir and Somadeva wrote the *Brhatkathamahjari* and the *Kathasaritsagara* respectively. Next to *Kathasaritsagara*, the *Pahcatantra* stands out in the fable literature. The contents of the *Pahcatantra* are elucidated further.

***Sakalarthasastrasaram jagati samalokya vishnusharmedam
Tantraih panchabhiretaschakara sumanoharam sastram***

Sanskrit fairy tales and fables are chiefly characterized ethical reflections and proverbial philosophy. The two most important collections are Panchatantra and Hitopadesha originally intended as manuals for the instruction of kings in domestic and foreign policy, they belong to the class of literature which the scholars call niti-sastra, or



"Science of Political Ethics". The most important of the tales are Bruhatkatha of Gunadhya, Bruhatkathamajari of Kshendra, Kathasaritsagara of Somadeva.

The study of different aspects like philosophy, psychology, politics, music, astronomy, human relationship revealing the concept of Dharma-universal, in these texts will throw an immortal light on the character of the society especially on the student community.

"The Indian tradition has accepted akhyana, narrative, as a mode of both constituting and transmitting knowledge ... Literature for us is not an end in itself. It must serve larger ends."

The **Panchatantra** makes direct references to Panini, Jaimini, Kautilya (Chanakya), Kamandaka, Bharata Muni, and Vatsayana. There are also other references to **Nitisataka of Bhartrhari**. Many of the aphoristic utterances in the Panchatantra are attributed either to Chanakya or Bhartrhari. The author first pays his respect and indebtedness to **Vacaspati, Sukara, Parasara, Vyasa and Chanakya** and then he says that Vishnu Sharma, after he has gone through the essence of the Arthasastras and other Sastras, Upanishads and Puranas existing in the world, has written, in the five books of the Panchatantra, a thoroughly delightful lesson. Indeed, describing the Panchatantra as a fable-narrative version of the various Sastras would not be an over statement.

The stories in the **Panchatantra** produce small sections from the various philosophical, political and literary texts. These discursive sections are judiciously placed within the narrative framework of a fable-narrative. To begin with the literary discourse, the Panchatantra makes it evident that the Naityastra is truly the fifth Veda, a Veda that mediates between the philosophy and the folk. This goes on to show that Bharata's discourse on dramaturgy had become very popular about the time Vishnu Sharma composed his work.

WOMEN IN FABLE LITERATURE : Female plays an important role in fable literature. Authors try to inculcate ethics through female characters frequently. The status of women was ascribed as follows....

1. **kavyaliterature** depicts a clear picture of the woman though it does not reflect any sorrow from her life.

2. **Dharmasatra** is somewhat realistic and the picture that emerges from it is mostly of a high class woman in a male dominated society.

3. **fable literature** : The didactic fable generally reveals an extremely cynical prejudiced attitude

Towards very low estimate of the woman.

TELUGU FABLE LITERATURE: The sources of stories are legends, mythic tales, folk tales, fairy tales, fables. Large number of tales are originated from ancient literature like Ramayana, Mahabharata, Prabhandas and Satakas. The economy of style and situation that is common to modern narratives and narrative techniques like the flash back are found in large measure in the ancient Telugu story poems like **keyurabhahucharitra, Simhasanadvatimsika, Dasakumaracharitra, kalapurnodaya**



m,Hamsavimsati and Sukasaptati. kathanika is defined in Agnipurana is a seed for short story as...

*Bhayanakam sukhaparnam garbhe cha karuno rasah/
Adbutante sukptartha anudatta sa kathanika//*

HINDI LITERATURE:Fable literature classified into two branches didactic and fairy tales.Tales reveals the problems in the society in a simple manner.

CONCLUSION: Fable literature is a fine channel to inculcate ethical values in the society for all ages of human beings .women plays an important role in this process.

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ROLE OF A TEACHER IN ENGLISH LANGUAGE TEACHING FOR SECOND LANGUAGE LEARNERS

Dr.T.Saranya

Assistant Professor

Ms.J.Ivanjaline

Assistant Professor

Rathinam College of Arts and Science

Coimbatore

Introduction

English as a world dialect is getting to be increasingly vital in our culture, in this manner influencing the English classroom and its members. The total prepare of instructing English has been changing amid the final decades and so have the understudies. They as of now begin learning there to begin with outside dialect at a essential school level and instructors ought to be adaptable to empower understudies to memorize. In this manner instructors not as, it wasteaching understudies what English is approximately and how it works, but too the utilization of it and especially communication abilities. In this manner it is essential to perform numerous diverse parts within the classroom to completely accomplish the most excellent learning advancement. Parts which have its possessed characteristics work in an unexpected way and have different points.

Successful Communication is all almost passing on messages to other individuals clearly and unambiguously with as small mutilation as conceivable. For a fruitful life in any circle of action, communication abilities are of essential significance. Today's organizations are continually looking forward for the candidates who have sound communication abilities in expansion to great specialized information. Those who cannot communicate well will lose out; they get much less credit for their accomplishments than they merit. In this way, successful communication could be a must to impact individuals and win their minds and hearts. Tragically numerous Designing understudies don't have these required abilities and as a result they are not advertised great employments within the rumored MNC's. Having kept this figure in intellect, the English language teacher ought to deliver most extreme significance to the English communication improvement which is basic within the display situation with an objective to form the work competitors productively utilized.

Definition of the Term "Role"

Before describing the various teacher roles, it is important to explain briefly what a "role" actually is. The Oxford Advanced Learner's Dictionary (1317) describes a role as:

"The function or position that has or is expected to have in an organization, in society or in a relationship."

Whether we realize it or not, we are acting in roles in many situations on a daily basis and while doing so we are confronted with expectations. Thereby, one can act in various roles: For example, a manager acts in an authoritarian role at work, as a loving father at



home and in his football team as a captain. These roles differ from each other in a way of choice: he can choose whether he wants to act as a manager or not, but his children will always perceive him as a father. He does not have to be the captain of his team but by fulfilling this role his team members expect him to act appropriately. The same happens when one chooses to be a teacher.

Roles of a Teacher

The primary and first imperative thing that the teacher of English must do is to assist the understudies in overcoming their fears approximately communication and spur them to create more positive discernments of communication exercises. He is anticipated to play the parts such as – counselor, help, communication abilities coach etc. The English dialect instructors must too be mindful of the most recent advances, strategies and approaches of dialect educating investigate modern thoughts and having a certain sum of specialization within the concerned subject.

The part of the teacher experiences crucial changes with the conveyance of a multidimensional second-language program. The essential part of the teacher in a multidimensional dialect lesson is to set up conditions and create exercises so that understudies are able to hone the dialect in a important setting. It is one of the teacher's most noteworthy duties to develop the student's positive demeanor to memorize a moment dialect.

It is the teacher who acts as facilitator, asset individual and dialect demonstrate for the moment- dialect classroom. In case creating units, the educator has to anticipate the conceivable needs of the understudies and have communicative dialect exercises promptly accessible to meet these needs. The exercises ought to be outlined so that the understudies encounter a tall degree of victory. Teachers will too encounter more prominent victory when exercises are arranged around the students' interface and take into consideration subjects that they have a few information around.

The teacher is additionally instrumental in making a positive and steady learning environment inside the lesson. Understudies who feel secure and secure are much more willing to hone a moment dialect. A solid classroom climate advances risk-taking and permits the understudies to experiment. Positive encounters within the classroom lead to an great state of mind toward dialect and culture.

The consistent re-entry and survey of phonetic substance all through the distinctive units empower the understudies to hone and internalize the dialect. In spite of the fact that this winding approach is perfect in dialect learning, the instructor must be mindful of the program goals and guarantee that the goals are being met. Instruction and assessment must reflect these destinations.

The teacher will continue to serve as a language model for the students. While remaining the person with whom the students will communicate most often, one of the main functions of the teacher will now be to discover or invent ways to encourage



students to communicate meaningfully with each other. Instead of actively directing and controlling all activities the teacher will aim to set up conditions for meaningful practice and then take on the role of a resource person.

The classroom gets to be student-centered instead of teacher-centered; the understudies do most of the talking and the part of the educator is to encourage exhortation, help and offer course. As the understudies most regularly work in little bunch the educator will watch the exercises, noticing issue regions for future work. Amid these exercises, the educator will hinder to rectify understudies as it were in the event that the mistakes are so genuine as to piece communication. As the instructor moves toward being a facilitator of dialect learning, the understudies obtain aptitudes that will empower them to be free dialect learners.

In the English classroom a teacher fulfills many roles with different aims.

The most common thought of a role might be the fully organized classroom in which everything is controlled by the teacher (Controller). (Harmer 1991, 236)

Another very important role is the one of the classroom managers. Good organization is a key factor in planning a syllabus, a lesson or just a particular task and helps to discipline the students (Manager). (Müller-Hartmann 32)

A role not directly related to the behavior of the teacher is the investigator. The teacher analyzes the way of teaching, observes what is going on in the classroom and investigates the ways students learn, with the aim to develop his/her methods of teaching (Investigator). (Harmer 1991, 242)

The last role is the role model which goes beyond the classroom influencing children throughout their whole life. Honesty, affection or fairness for example, are not only learned from parents but also from teachers at school. Therefore, a teacher must be fully aware that his behavior in general has a huge impact on the personal development of his/her students. (Role Model) (Mathew)

Additionally, it is important to mention that roles also differ in their influence on the lesson and whether they are fulfilled actively or rather passively. (Harmer 1991, 235 / Müller-Hartmann 32) The following diagram shows an overview about the different roles, whether they can be seen as active or passive and how far they are related to each other:

Teacher as Controller

The way of leading a class depends on the character of the teacher. Every person has his/her own style of teaching. Some teachers are very open minded and do not hesitate being the centre of the lesson, whereas others prefer to let the students interact by themselves. Teachers who are popular among the pupils have fewer problems to keep them motivated and pass on knowledge. What every “Controller” has in common is, that his/her language output is the central means for developing the students’ comprehension and I will deal with this so called “teacher talk” in more detail later on. A crucial factor however is that the teacher keeps in mind not to act too much. Students also need to have their own free time to learn the treated content which means that control has to be reduced sometimes. Otherwise one risks hampering the student’s progress. Therefore,



too much talking is not recommendable as students do not get the chance to communicate by themselves.

Organization of Teaching Units

The units are based on fields of experience taken from the interests of the students. Each of the units includes an introductory or pre-activity phase, a main or activity phase and a post or reflection phase.

In the **introductory phase, (pre-activity)**, the teacher activates any knowledge that the student may have about the topic to be covered. The students share their knowledge and explore their attitudes in this area. This phase stimulates interest in the topic and provides the impetus for further discussion and activity.

In the **main phase, (activity)** the students perform a number of tasks and activities in order to develop language skills, knowledge and attitudes in the field of experience. At this point, the students spend time developing their language skills in a meaningful context.

The **post or reflection phase, (post-activity)** allows the teacher and students to step back and reflect on what they have learned and the strategies used. It includes vocabulary and structures as well as new knowledge they have gained about the topic. It is also a time to reflect on how the experience may have affected their attitudes and behaviors and how they may transfer what they have learned to new situations.

The organization of the instructing unit permits the understudies to end up curious about a subject, gotten to be recognizable with the experiential objective at an early arrange and do exercises that will provide them success with the ultimate item. The ultimate item and the reflection on the unit grant the understudies a sense of completion and achievement. As the understudies start the following unit, phonetic structures will re-emerge and this winding approach will guarantee that the understudies proceed to hone and apply what they have learned amid the unit.

Conclusion

Communication skills among the students can be developed by training programs and lot of practice work. It requires persistent efforts. Due to the unprecedented importance given to good communication skills, it has become vital on the part of students to master them. As teachers of English, it is incumbent upon us to help students discover the astonishing power of the English language and it is our bounden duty to play a pivotal role in developing the four skills of English language among the students of Engineering and Technology.



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on u døy Hkkjrh; I ekt }kjk I eknr gScfYd fo"o dsegku-fo}kula us Hkh mlga J) k dh nf'V I snq'kk gS rFkk mudh egYkk dls Lohclkj gSA Hkkjrh; ijEijk ds vuq kj on viKs 'ks gSA os l fn; ka iDZ I s ekuo&thou ds dY; k k ds l k/ku cudj mlga vuq kf.kr djrs vk; s gA buea Kku&foKku /ke&n"ku] I nkpj&l h dfr] I kekf'd ,oa jktufrd thou I s l a;kr I Hkh fo'k; mi yC/k gSA vr, o fo}kula us bl s fo"odtks ds : lk ea ekU; fd; k gSA onka ds v/; ; u ds fcuk Hkkjrh; I h dfr ,oa Hkkjrh; ka ds thou&n"ku dks I e>uk cMk d fBu gSA on gekjs J; vj; iæ ds l k/ku gSA euq us rks mlga/ke] dk ey dgk gSA **1/4 onksf[lyls/keÿe** ² on I s gh I eLr /ke] idV gq gSA **1/4 onk) elã fg fuc** **1/2** ; gh dlj.k gS fd ir' tfy us 'kM³x onk; ; u ij vf/kd cy fn; k gSA

[3]

ckã.ki fu'dlj .ks/ke% 'M³x onks/ ; s ks K; "pa ³
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Hkk'kk foKku dh nf'V I s Hkh on vR; f/kd egYoi wZ gSA ofnd Hkk'kk ds fcuk Hkkjrh; Hkk'kkvka dk v/; ; u I Hko ugha gSA onka ds mins'k I ko d kfyd vj; I ko d kfyd gSA on gh I Hkh Hkkjrh; ka dks , d I = ea c k/kr s gSA Hkkjrh; ijEijk ea mlga "k n iæ.k ds : lk ea Lohclkj fd; k x; k gSA on plj g& **1/4 1/2** __xon **1/2 1/2**; tøn **1/3 1/2** l keon vj; **1/4 1/2** v f k n A vr= mudh I agrk; i Hkh plj gS iR; d on ds plj Hkkx g& **1/4 1/2** l agrk **1/2 1/2** ckã.k **1/3 1/2** v kj .; d] vj; **1/4 1/2** mi fu'kn- A I agrk ea-ka dk og Hkkx gñt I ea on Lrfr of. kr' gS , oa ftl dks foHkku ; qkã I s i < k tk I drk g&&

p_d-; t; l ke f lo k ; ku-onku- i m kn f he j k s A
"M=feT; la Lrfr Lrkaik; f"pra0; /w-ØeR- AAP ⁴

v f k r' _d- dk fo'k; g& p'kl = p A b'kl = p ml s dgk tkrk gS tks ell=ka }kjk mPofjr gkrk gS rFkk ftl dk xku ugh fd; k tk I drk A ; t; k- dk fo'k; **M;T; l; p** v f k r' ; K gA rFkk I ke dk fo'k; g& p Lrfr & Lrke p v f k r' - Lrfr ds fy, iz q; eku _d- l enk;] tks mn x krk }kj xk; k tkrk gA v f k o z dk i f r i k | fo'k; g& b i k ; f"pr p A

__xon I agrk & __xon fo"o I kgr; dk ikphure xbfk gSA ; g foHkku norkvka ds Lrfr ijd ell=ka dk I d yu gS vj; bl dh mRi fYk foj kV iq 'k ds e[k I sekuh xbz gSA **__xon** ea p k ku p dh egYkk dk i f r i k n u fd; k x; k gSA , d k eku tkrk gS fd I f'V ds vj; Hkh ea b'oj us onka dk Kku v f k u ; ok; j v k f n r ; v j ; v i x j k u k e d p l j _f'k; ka dk i n k u d j f n ; k f k A ⁵

__xon ds 10580% ell=] 1017 I d r s ea r f k k 1017 I d r n l e. Myla ea foHkfr gS A egHkk'; dkj ir' tfy us **__xon** dh 21 "kk[kk; i ekuh g&, dfofkr/kk olgoP; e; ftl ea "kkdy] ok'dy] vk'oykf; uñ] "kk[kk; uñ] rFkk ek. Mndk; uñ iæ[k "kk[kk; i gA

; tøn I agrk & ; tøn dk i f r i k | fo'k; ; k f k d e d k . M g S r F k k b l d k _f r o d] v / o ; i g A ; tøn I agrk ds e[; nork ok; q vj; v k p k ; & on 0 ; k l ds f'k' ; o s k e i k ; u g S A e g k H k k ' ;] p j . k o ; u , o a i j k . k a ds v u q k j ; tøn dh 100] 109] 86 v k f n "kk[kkvka dk i r k p y r k g S A ; tøn I agrk] t; q ka dk I x g g S A ; tøn dk v f z g r k g & p ; **t; k a o n % A** ; t; k dk v f z g r k g & ; **T; r s u s u r** ; **t; k** ⁶ v f k r' - f t u e l l = k a I s ; K ; k x k f n f d , t k r s g s v f u ; r k (k j k o l k u l a ; t; k v f k r' - f t l e a v (k j k a d h I q ; k f u ; r u g l s A

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r s y k j h ; " k [k k e a 7 d k . M] 4 4 i i k B d v j ; 6 3 1 v u p k d g S A e s ; k . k h " k [k k e a 4 d k . M] 5 4 i k B d v j ; 2 1 1 4 e l l = g S A d B " k [k k e a 4 0 L F k u d v j ; 8 4 3 v u p k d g S A d f i ' B y " k [k k e a 8 v ' V d v j ; 4 8 v / ; k ; g S A

I keon I agrk & I ke dk v f z g r k g & p x k u p A **__xon** ds ell= t c fo f'k'V xku i) fr I s x k , t k r s g S r s m l d s l I e d g k t k r k g S A o l r r % **__xon** dh _p k v k a d k y ; c) x k u g h I k e g A I k e o n d k i e d [k f o ' k ; m i k l u k g S A x k u p l j i d l j d s g r s g & x t e ; k x s x k u j v j . ; x k u j A g x k u v j ; m g f k j ; g l ; 1 / 2 x k u A m y k j k p z d s v u d e l l = i m k p z d s f y , x k , g S A b l e a l k r i e d [k v u q B k u l a d k f u n k g & n " k j k =] I d r i j] , d l g l I =] i k ; f " p r v j ; { m z b l e a i R ; d e l l = d h y ; } r k u d s ; k n d j u s d k o . k u f o j e k u g S A i m k p z d e a d y 6 5 0 e l l = v j ; m y k j k p z d e a 1 1 2 5 e l l = g S A

v f k o n I agrk & v f k o n dk v f z g r k g & v f k o l a d k o n ; k v f h k p j e l l = k a d k K k u v f k o u - _f'k ds uke ij b l o n d k u k e v f k o n i m k g S A b l H k x o i x j o n] v f k o l a x j k o n] f i k ' k o n] { k = o n r f k k c a o n d s u k e I s H k h t k u k t k r k g A b l o n d k n o r k I k e r f k k v k p k ; Z I e l r q g S A v f k o n d k s o n = ; h 1 / 4 _x o n] ; t o n] I k e o n 1 / 2 d h v i k k d e e g y o f n ; k x ; k g S D ; k i d b l e a v f / k d k r k % v f h k p j k r e d I d r g h g S A



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vi uh rstfLork dks cuk, j [kus dsfy, ; K djuk vko"; d ekuk x; k gSA ; K djuk gh mudk e[; dke
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lvj.; s, oa iB; Roln vlg.; de-brh; tsAP

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TRANSPARENCY AND ETHICS IN BUSINESS: AN OVERVIEW ON SOCIAL AMBIENCE: WITH REFERENCE TO ENTREPRENEURIAL GROWTH IN INDIAN CONTEXT SINCE 1947-2018

Glen Francis

Assistant Professor

T John College, Gottgere, Bannarghatta Main Road, Bengaluru, Karnataka

A business entity functioning in today's concept must be transparent and in its code of conduct follow the ethical proceedings in its daily run then only its survival could be enhanced in the long run. Otherwise the so called business entities runs into the stage of "entropy" where it loses its sustainability in the long run. A business in our day to day life can be referred as the stage of being busy or being technically engaged in any activities with sole intentions of profit maximization. A systematically running business organization is coordinated and integrated with the activities of marketing, Finance, Human Resource and Research and Development activities.

Transparency in business in the first and for most instance means that the communication patterns we follow in the business organizations especially among stakeholders (stakeholders here literally means whoever interested in the day to day operations of a business firm) should achieve a clear cut precise and clarity nature. Formal and informal communication, upward and downward communications, Horizontal and vertical communications maintained within a organization should achieve a definite flow. If communications maintained are clear cut and never misinterpreted a 70% of ethical progress in the business there itself with subject to a well structured code of conduct. An organization earlier used to function for profit maximization is now substituted with the concept of wealth maximization where subsequently profit for the entity should be achieved with genuine practices and on grounds of non discriminatory procedures. Society is more and more benefited with increasing magnitudes of transparency in business because the concept of "corporate social responsibility" where each and every organizations are ecologically and economically committed to the society as well.

Indian entrepreneurial context states its origin from Tata, Birla, and Ambani associated families. Earlier Indian entrepreneurs are structured and being patterned around a family scenario till 1990's. But these trend slowly changed and give rise to individual and independent entrepreneurs later. The alternatively changed government and revised industrial policies expanded much of its support to their young, innovative and esteem future entrepreneurs

Procedures which establish transparency in organizations:

Some of the policies and procedures that establishes transparency in organizations are as follows:

1. Open Door Policy

Open door policy enhances the employees within organization to establish their views freely with their immediate supervisors. Also it eliminates the communication gap between upper level and lower level employees of an organization such that greivances,



welfare policies etc are immediately communicated that enhances coordination, integrity, and transformational leaderships within the organization structure.

2. Eliminate ambiguity.

Remove any potential for confusion from all workplace communication, including company guidelines, roles, responsibilities and processes. Accountability begins with a clear understanding of who is responsible for which parts of the business, and employees struggle when management leaves important information open for interpretation. To avoid potential problems, follow up often and be firm about your expectations for open communication at all levels in the future.

3. Prioritize inclusivity.

An environment of transparency and accountability is one based on inclusion. Although not everyone can be included in every decision, management should explain clearly why upper-level decisions were made when lower-level employees can't be involved. Sharing as much information as possible with employees about how and why certain decisions are made helps ensure employees' future decisions are in line with the company's values and guidelines.

4. Focus on ownership.

Results—both the failures and the successes—tell a story from which everyone in the company can learn. Forbes says that trusting your employees and giving them ownership over their work is key to creating a culture of accountability. However, that doesn't mean that managers become silent observers. Continue to play an active role by providing guidance when necessary, celebrating team accomplishments, and providing support after failures.

5. Lead by example.

Change happens from the top down, so management must be diligent about transparency and accountability at all times. Share freely, communicate often, and implement company-wide systems that are built to support and encourage a transparent and accountable workplace.

Conversely, what you do *not* do is equally important. Don't reward teams or promote individuals who achieve their goals at their colleagues' expense. In a culture of true transparency and accountability, *how* a success is earned is just as important as the success itself, so make it clear certain tactics won't be tolerated. Celebrate true collaboration and knowledge sharing, and promote achievements that were earned the right way.

Taking even small steps toward building this type of culture will improve workplace communication and lead to a host of other benefits that will strengthen your organization

Practicing these policies and procedures in our organizations could enhance more transparency that it hereby ensures that the respective organization ethically functions well and maintains a clear code of sustainability.

Entrepreneurial context of India

According to Peter F Ducker



“An entrepreneur is the one who always searches for change, responds to it and exploits it as an opportunity. Innovation is the specific tool of entrepreneurs, the means by which they exploit changes as an opportunity for a different business or different service”

The entrepreneurship is a very old concept according to which anyone who runs business is called an entrepreneur. The more precise meaning of entrepreneur is; one who perceives a need and then brings together manpower, material and capital required to meet that need. Entrepreneur is one who understands the market dynamics and searches for change respond to it and exploit it as an opportunity.

The entrepreneur is the one who undertakes to organize, manage, and assume the risks of a business. In recent years entrepreneurs have been doing so many things that it is necessary to broaden this definition. Today, an entrepreneur is an innovator or developer who recognizes and seizes opportunities; converts those opportunities into workable/marketable ideas; adds value through time, effort, money, or skills; assumes the risks of the competitive marketplace to implement these ideas; and realizes the rewards from these' efforts.

The entrepreneur is the aggressive catalyst for change in the world of business. He or she is an independent thinker who dares to be different in a background of common events. The literature of entrepreneurial research reveals some similarities, as well as a great many differences, in the characteristics of entrepreneurs. Chief among these characteristics are personal initiative, the ability to consolidate resources, management skills, a desire for autonomy, and risk taking. Other characteristics include aggressiveness, competitiveness, goal-oriented behavior, confidence, opportunistic behavior, intuitiveness, reality-based actions, the ability to learn from mistakes, and the ability to employ human relations skills.

Growth of Entrepreneurship in India during Post-Independence!

After taking a long sigh of political relief in 1947, the Government of India tried to spell out the priorities to devise a scheme for achieving balanced growth. For this purpose, the Government came forward with the first Industrial Policy, 1948 which was revised from time to time .

The Government in her various industrial policy statements identified the responsibility of the State to promote, assist and develop industries in the national interest. It also explicitly recognised the vital role of the private sector in accelerating industrial development and, for this; enough field was reserved for the private sector.

The Government of India took three important measures in her industrial resolutions:.

- i) To maintain a proper distribution of economic power between private and public sector.
- (ii) To encourage the tempo of industrialization by spreading entrepreneurship from the existing centers to other cities, towns and villages.
- (iii) To disseminate the entrepreneurship acumen concentrated in a few dominant communities to a large number of industrially potential people of varied social strata.

To achieve these adumbrated objectives, the Government accorded emphasis on development of small-scale industries in the country. Particularly since the Third Five Year Plan, the Government started to provide various incentives and concessions in the form of capital, technical know-how, markets and land to the potential entrepreneurs to



establish industries in the industrially potential areas to remove the regional imbalances in development.

This was, indeed, a major step taken by the Government to initiate interested people of varied social strata to enter the small-scale manufacturing field. Several institutions like Directorate of Industries, Financial Corporations, Small-Scale Industries Corporations and Small Industries Service Institute were also established by the Government to facilitate the new entrepreneurs in setting up their enterprises.

Expectedly, small-scale units emerged very rapidly in India witnessing a tremendous increase in their number from 121,619 in 1966 to 190,727 in 1970 registering an increase of 17,000 units per year during the period under reference.

The recapitulation of review of literature regarding entrepreneurial growth in India, thus, leads us to conclude that prior to 1850; the manufacturing entrepreneurship was negligible lying dormant mainly in artisans. The artisan entrepreneurship could not develop mainly due to inadequate infrastructure and lukewarm attitude of the colonial political structure to the entrepreneurial function.

The East India Company, the Managing Agency Houses, and various socio-political movements like Swadeshi campaign provided, one way or the other, proper seedbed for the emergence of the manufacturing entrepreneurship in India from 1850 onwards.

The wave of entrepreneurial growth gained sufficient momentum after the Second World War. Since then the entrepreneurs have increased rapidly in numbers in the country. Particularly, since the Third Five Year Plan, small entrepreneurs have experienced tremendous increase in their numbers.

But, they lacked entrepreneurial ability, however. The fact remains that even the small entrepreneurship continued to be dominated in business communities though at some places new groups of entrepreneurs too emerged. Also, there are examples that some entrepreneurs grew from small to medium-scale and from medium to large-scale manufacturing units during the period.

The family entrepreneurship units (family business) like Tata, Birla, Mafatlal, Dalmia, Kirloskar and others grew beyond the normally expected size and also established new frontiers in business in this period. Notwithstanding, all this happened without the diversification of the entrepreneurial base so far as its socio-economic ramification is concerned.

Most of the researchers in their research studies made statement that Indians have always been entrepreneurial in nature; it's just only recently that this word is being used so often. Speaks about the challenges entrepreneur have faced and the way to go ahead. The researchers noted the distinct phases in the history of entrepreneurship in India after the country's independence. Long years of domination had left severe scars on the Indian psychological evident in the entrepreneurial culture that was growing in the governmental set up. Around two hundred years of foreign burden had wiped out independent mindset among the work force with no decision making ability whatsoever. In this background the thought leaders had to struggle to bring about an entrepreneurial attitude.

Despite the arrival of independence, the early decade of 1950-60s marked a slow progress from an agrarian economy to an industrialized market. Industry was dominated by textile power looms in and around Bombay, Ahmadabad, Calcutta and Madras. The



decade of 1960s saw the rapid expansion in large scale government sponsored heavy industry being set up across the country. Undermining the role that an individual enterprise can play in a country's economic growth, the government went ahead building state owned enterprises dependent on centralized planning. Based on the successful experience of the former Soviet Union, Indian policy makers concluded that, particularly for a poor country, centralized planning was essential for the efficient allocation of an economy's resources. Numerous small scale industries (SSI) sprouted as ancillary units to cater to these large industries.

In the 1970s, there was an intensive campaign to promote entrepreneurship among the Indian business community. This was the first effort to promote entrepreneurship in a concentrated manner. In 1970, to increase foreign exchange earnings, Government of India designated exports as a priority sector for active government help and established, among other things, a duty drawback system, program of assistance for market development, and hundred percent export oriented units to help producers export. Finally, from the late 1970s through the mid-1980s, India liberalized imports such that those not subject to licensing as a proportion to total imports grew from five per cent in 1980-1981 to about 30% in 1987-1988. However, this partial removal of quantitative restrictions was accompanied by a steep rise in tariff rates. The late 1980s marked the new beginning for the small and medium entrepreneurs in India with the new government choosing to move towards a market oriented economy. The economic crisis of the early 1990s resulted in economic reforms and a deliberate move towards globalization and liberalization of the Indian Economy. This shift brought in huge change in a SME unit's contribution to production and exports reflecting that the small scale industries have undergone substantial technical change in their production process. With the youth facing the hardship of finding the right job in the public sector, human resource availability increased for the private sector.

The youth who were increasingly disenchanted with the stagnation in government jobs, eagerly sought private sector jobs which assured them independence, growth and even stability in their career. Soon by the early 2000, it was common to see young professionals preferring to become entrepreneurs and the least preferred career path was a stable government sector job. With the dawn of the new service oriented economy, young professionals will increasingly work in the private sector and later choose to start a business of their own. With technology helping a SME in all possible ways, increasingly we will find professionals venturing into new business opportunities utilizing easily accessible financial help.

Government of India's vision and action plan Government of India initiated the vision and action plan entrepreneurial development support to the small scale industrial sector through the ministry of micro, small and medium scale enterprises at the national level with a view to promoting, aiding, and fostering the growth of small scale industries and industry related small scale services or business enterprises in the country. The vision of the Ministry of MSME, formerly it was a ministry of SSI, is to create an enabling policy environment and put in place corresponding support measures to help the MSME sector to meet the emerging challenges of competition and also harness the opportunities, in tandem with the accelerating pace of liberalization and globalization of the Indian economy. The agenda of the Ministry, therefore, includes steps to develop an



appropriate policy framework within which supply of credit is improved, better infrastructural facilities are provided and targeted incentives are designed and extended to the enterprises in the sector for their modernization and technology up gradation, improved market access, entrepreneurship development and entrepreneurial skills up gradation and capacity building, both at the level of individual firms and their clusters. The agenda takes cognizance of the significant role played by information technology, sunrise, hi-tech and export potent industries, on the one hand, and, the special needs of the tiny/ micro-enterprises, on the other, as they constitute over 95 per cent of the total population of small scale industrial units in the country.

Organizational has a set-up for the development of entrepreneurship with most of the programs and schemes for the development of the industrial sector are implemented through two principal organizations of the Ministry. These are: i) Small Industries Development Organization (SIDO) established in 1954; and ii) National Small Industries Corporation (NSIC) established in 1955. Besides, there are three national-level Entrepreneurship Development Institutes viz., National Institute for Micro, Small and Medium Enterprises (NIMSME) at Hyderabad, National Institute for Entrepreneurship and Small Business Development (NIESBUD) at Noida and Indian Institute of Entrepreneurship (IIE) at Guwahati. A National Commission for Enterprises for Unorganized Sector (NCEUS) has also been set up recently by the Government with headquarters in New Delhi.

Recently, Government of India formed the Ministry of Skill Development and Entrepreneurship in 2014. The Ministry aims to Skill on a large Scale with Speed and high Standards in order to achieve its vision of a 'Skilled India'. National Institute of Small Industry Extension Training (NISJET), Hyderabad was set up in 1960 in New Delhi later it was shifted to Hyderabad in 1962 now it becomes a National Institute for Micro, Small and Medium Enterprises (NIMSME) in 2007 to assist in promotion, development, and modernization of small and medium enterprises (SMEs) through the entrepreneurship in the country. At present, the main activities of NIMSME are entrepreneurship development related training programs, training research and consultancy, including the methodology of cluster development. National Institute for Entrepreneurship and Small Business Development (NIESBUD), Noida: The major activities of the Institute, established in 1986, include, development of model syllabi for training of various target groups, designing effective training strategies, methodology, manuals and tools, facilitating and supporting Central/State Governments and other agencies in executing programs of entrepreneurship and small business development, etc. Indian Institute of Entrepreneurship (IIE), Guwahati was established in 1993, with the aim of undertaking training, research and consultancy activities in the small industry sector focusing on entrepreneurship development as an autonomous national institute. IIE is working towards strengthening the capacity in the field of entrepreneurship development, training, entrepreneurship education, research, and consultancy, incubator services on gems and jewelers, publication and sensitization of environment for promotion of entrepreneurship, enterprise creation and self-employment in the North Eastern Region. Indian Institute Entrepreneurship, Guwahati has also taken initiatives for providing hand-holding services to the entrepreneurs in the North Eastern Region for which a Business Facilitation & Development Centre (BFDC) has been set up with



financial assistance from the Government of India. Recently, Government of India formed the Ministry of Skill Development and Entrepreneurship in 2014. The Ministry is responsible for co-ordination of all skill development efforts across the country, removal of disconnect between demand and supply of skilled manpower, building the vocational and technical training framework, skill up-gradation, building of new skills, and innovative thinking not only for existing jobs but also jobs that are to be created. The Ministry aims to Skill on a large Scale with Speed and high Standards in order to achieve its vision of a 'Skilled India'. It is aided in these initiatives by its functional arms – National Skill Development Agency (NSDA), National Skill Development Corporation (NSDC), National Skill Development Fund (NSDF) and 33 Sector Skill Councils (SSCs) as well as 187 training partners registered with NSDC. The Ministry also intends to work with the existing network of skill development centers, universities and other alliances in the field. Further, collaborations with relevant Central Ministries, State governments, international organizations, industry and NGOs have been initiated for multi-level engagement and more impactful implementation of skill development efforts in India. National Commission for Enterprises in the Unorganized Sector has been set up by the Government of India as an advisory body and a watchdog for the informal sector with a view to fulfilling the commitment in the National Common Minimum Program of the Government. The Commission will recommend measures considered necessary for bringing about improvement in the productivity of these enterprises, generation of large scale employment opportunities on a sustainable basis, particularly in the rural areas, enhancing the competitiveness of the sector in the emerging global environment, linkage of the sector with institutional framework in areas such as credit, raw material, infrastructure, technology up gradation, marketing and formulation of suitable arrangements for skill development.

An overview of the changing entrepreneurial patterns of India:

A major change with respect to entrepreneurs in India is that more and more women entrepreneurs came into existence with respect to varied fields in industry. Main reason for these change is added to following matters of concerns:

- Trade related entrepreneurship assistance and development scheme for women (TREAD)
 - Micro & small enterprises cluster development program (MSECDP)
 - Credit guarantee fund scheme for micro and small enterprises
 - Support for entrepreneurial and managerial development
 - Exhibitions for women under promotional package for micro & small enterprises approved by CCEA under marketing support.
- More emphasis is given to establishing startups in Indian context and youth is more and more encouraged to establish ventures in the fields relating to IT ,infrastructure, Technology, Digital Marketing etc.



- Artificial intelligence, Transaction Processing systems, Knowledge processing systems paved the way for establishment for individual entrepreneurs.
- Public, Private, and corporate ownerships earlier tend to prevail now modified its structure to independent and individual entrepreneurs.

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SOCIAL DEVELOPMENT IN PRINCELY STATE OF MYSORE

K.N.Manjunatha

Sahyadri Arts College, Shivamogga

The study makes an inquiry with the study of the Princely State of Mysore with which the other Kannada speaking regions were united as part of state formation process in 1956. The erstwhile Princely State of Mysore consisting of nine districts viz., Shimoga, Mandy, Chitradurga, Tumkur, Mysore, Bangalore, Chickmagalur, Hassan and Kolar.

Many studies such as Chandrashekhar [1985], James Manor [1977] and Bjorn Hettne [1978], on the princely state have focused on various dimensions of socio-economic and political changes that took place in the colonial period. These studies have revealed the fact that the princely state was one of the most progressive states in India. Historically, the Mysore state was a southern principality of the great southern Hindu empire of Vijayanagar, which had its capital in today's Hampi in North Karnataka. Although Mysore was able to establish an independent kingdom under the Wodeyar dynasty, it was forced to surrender the throne to a powerful Muslim officer, Harder Ali, paving the way for Muslim rule in Mysore region. However, the death of Tippu Sultan in 1799 allowed the colonial masters to enter into this southern principality. Although the British restored the Hindu Dynasty of Wodeyars, the actual powers restored to the Maharaja were extremely limited. There was, of course, very little left for the royal family but to accept whatever conditions their colonial overlords deemed desirable. In fact, it was governed and regulated under the provisions of "Subsidiary Treaty of 1799".

The important period in the history of Mysore was the Dewanship of Purnaiya (1799-1810), who had earlier served under Haider Ali and 'Tippu Sultan. It is interesting to note that Dewan Purnaiya was a man of vision who managed the affairs of Mysore with reasonable level of tranquility in most parts of the state and effectively maintained the law and order. But, the insurrection of local power holders in Mysore ultimately led to the takeover of British and direct rule was imposed.

Accordingly, from 1834 to 1861, Sir Mark Cubbon as Chief Commissioner ruled Mysore. As he belonged to the conservative school, he deliberately delayed the modernization waves in Mysore. Still his encouragement to the cultivation of coffee and cardamom in Western Ghats is significant. But, Bowring who replaced Cubbon, introduced many socio-economic changes by restoring irrigation works, repair of tanks, laying railway lines, building roads, etc., in all parts of the state. He also gave incentives to coffee agriculture and expanded education in Mysore. ' Although the colonial rule finally ended and established a new political order in 1881 through rendition, it could be seen as an advantage over Mysore as it gave birth to such an administrative system which even today makes up a great deal of framework for planning. It also provided infrastructural and institutional foundation which made Mysore economically, educationally better than any of the other princely states in India.



With the process of rendition in 1881, Mysore was restored with native rule under many Wodeyar kings and Dewans. During their reign, the princely state of Mysore witnessed several socio-economic reforms, thanks to the modern, secular and liberal policies of those rulers and Dewans. One of the important and progressive reforms of those days was the establishment of "Representative Assembly" with elective principle. It was the first state in India to create such a unique institution that sowed the seeds of democracy. It provided space for the people to participate in the deliberations of the administration. This was an important contribution of King Chamaraja Wodeyar (1881-1894) and his Dewan Rangacharlu (1881-1882) who emphasized on the pioneering role of the state in 1881. The Mysore Civil Service was introduced in 1892 when Sri. K. Sheshaadri Iyer was Dewan, in order to attract young talent in the art of administration. Another important development in the princely state of Mysore was the establishment of "Legislative Council" in 1907. It led to the growth of legislatures in India.

Although the princely state of Mysore flourished under the Dewanship of prominent personalities like Purnaiya, C. Rangacharlu, Sheshaadri Iyer, etc., the reign of Krishnaraja Wodeyar IV in Mysore with the assistance of high profile Dewans like M. Visveshwaraiah and Sir Mirza Ismail could be seen as an important milestone in the history of Mysore. The visionary policies of these Dewans resulted in Mysore getting the epithet "Model State".

Mysore Model of Development:

The kind of developmental activities that took place in the Mysore during indirect rule have been regarded as a model today. This model not only built economic infrastructure but also paid attention to the social infrastructure like education, health facilities, good administrative system, trained manpower and development of entrepreneurship in the state.

Dewan Visveshwaraiah who coined the phrase "Industrialize or perish" was an engineer by profession with specific ideas on economic development and social change, played an important role in developing Mysore as a model state. It is noteworthy that he was the first non-European Engineer in 1909, which speaks for his intelligence, competence and potential. He rendered his yeomen service as a Dewan of Mysore from 1912 to 1918 under Krishnaraj Wodeyar [1902-1940] and brought many changes by creating institutions of change. His strategy of development emphasized on three important fields of change such as education, industrialization and rural modernization and transformation. He built many concrete projects, which aimed at transformation of the institutional and economic structures of Mysore. For this purpose, he built many economic institutions. Accordingly, Krishnaraja Wodeyar IV inaugurated The Mysore Economic Conference (MEC) in June 1911. This conference had an objective of associating men of enlightenment, public-spirited citizens, prominent agriculturists, merchants, Government officials, etc., to deliberate on policies which would stimulate economic progress in the state. Besides, institutions like The Mysore Bank [1913], The Iron and Steel Works, Cement and Paper Factory at Badravati, Mysore Chamber of Commerce, Government Soap Factory, Central Industrial Workshop, Hindustan Aeronautics Limited [HAL], and others were established in Bangalore. Apart from



these, Sugar Factories, Fertilizer plants, Sandal Oil Factories and host of other industries were mushroomed during his reign 3.

Considering the importance of education as a key in development process and a sovereign remedy for the economic and social evils, the Maharaja and his Dewan Visveshwaraiiah accorded high priority to education. It was also felt necessary to generate manpower required to run all those industries established for socio-economic change. Accordingly, Mysore University was established in 1916. It is noteworthy that it was the first university to be established in a princely Indian states with specific aims and objectives.

Visveshwaraiiah said:

"to develop the intellectual ability and executive power of the citizens and to afford the training necessary to prepare future manufacturers, merchants, eGoflomists, statesman etc, for the work of the country .

Apart from introducing compulsory education, the Mysore Government extended its help by initiating scholarship schemes for students belonging to the backward communities to pursue higher education. Engineering, medical colleges and technical institutes were opened and women education was encouraged during the rule of Krishnaraja Wodeyar IV.

Power generation was yet another significant achievement of the princely state. Mysore became the first Indian state to generate its own electricity. The Shivanasamudra Hydroelectric Project (SHP) pioneered the scheme of power generation and also provided electricity to Kolar Gold Fields, (KGF) in 1902. Electricity supply was extended to Bangalore, the first Indian city to be electrified in 1905. It was a multipurpose project which is still being used for both power generation and irrigation purposes.

Social cohesion and amity was the most remarkable aspect in the erstwhile princely state of Mysore. Krishnaraja Wodeyar-IV maintained social cohesion and amity in the state amongst various diverse sections of the society. It was apparent in his resolutions. In 1915 itself, he had passed an order asking all headmasters to admit Dalit children in all the public schools, thus accepting the principle of equality that no pupil should be denied admission to government schools, schools maintained out of public funds on the ground of caste. His directives applied in the same way in cases of hospitals, courts of law, railways and other public institutions.

Politically, the region was much advanced, as there was scope for political freedom and action. The representatives of the backward communities established "The Praja Mitra Mandali", the first political party in 1917. It initiated the Non- Brahmin Movement (NBM) in Mysore, which had received impetus from the "Justice Party" of Madras. The Non-Brahmin Movement became successful in winning the heart of the king, who introduced the system of 'Protective Discrimination' in legislative bodies, government services and educational institutions. This measure strengthened the socio-economically backward communities not only to avail educational facilities but also to participate in the governance of the state.

Apart from these relevant examples, a large number of small-scale industries and socio-economic measures took place in the state. Besides, the presence of abundant



resources like Cauvery River, fertile land for agriculture and temperate climate suitable for agriculture also contributed to the growth of this region. It also led to the emergence of strong Vokkaliga class in the region, who continue to acquire dominant position in the state. In a nutshell, the Mysore model of development can be summarized as a collaboration of both state and private initiative, a strong emphasis on complementary industries and holistic approach of development covering all sections of society with a strong emphasis on planning. This, obviously placed Mysore in a better position compared to other Kannada-speaking regions. The pre-1956 advancements in Mysore region resulted in better development in the post-1956 Karnataka as it inherited well laid out infrastructure and institutional foundation before its integration with other Kannada-speaking regions.

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Medicinal Plant Identification through Leaf Structure Analysis

Prathiksha ^[1]

UG Student

Dept. of Information Science & Engineering,
Alva's Institute of Engineering & Technology,
Moodbidri, India

prathikshapoojary2@gmail.com

Sanjana Shekhar Shetty ^[3]

UG Student

Dept. of Information Science & Engineering,
Alva's Institute of Engineering & Technology,
Moodbidri, India

sanju2905shetty@gmail.com

Manjunath H R ^[2]

Senior Assistant Professor

Dept. of Information Science & Engineering,
Alva's Institute of Engineering & Technology,
Moodbidri, India

manjunathdv@gmail.com

Shreesha B ^[4]

UG Student

Dept. of Information Science & Engineering,
Alva's Institute of Engineering & Technology,
Moodbidri, India

shreeshabant27@gmail.com

Abstract— Plants are an essential part of our ecosystem and Republic of India incorporates a long history of using plants as a source of medicines. Since the appearance of recent medical aid drugs, the utilization of ancient drugs declined to a substantial extent. It's necessary to classify these plants in order that it might be straightforward to pick out the proper plant for the medicative preparation or to review a lot of regarding its characteristics. This project proposes a computer vision approach for the popularity of Ayurvedic medicative plant species by processing the leaf image. The planned system uses Heralick options extracted from leaf pictures and also the classification using Support Vector Machine classifier. This technique is enforced with a python editor Anaconda each for frontend and backend. Once the user uploads the leaf image he will get the name of the leaf and it classifies the leaf whether or not it's medicative or not.

Index Terms— Preprocessing, Gray scale, GLCM, Haralick features, Support Vector Machine, RBF

1. INTRODUCTION

Plants are the most important factor for the survival of life on earth. There are vast variety of plants existing in nature. In recent years, ancient medication has created a comeback for a set of reasons like they're cheap, nontoxic and doesn't impact any aspect. At present, plants are known manually by taxonomist that are vulnerable to human errors. So as to stop this drawback this project makes an attempt to supply an automatic system to acknowledge species of plants by recognizing the digital image of their leaf [2].

Leaf identification forms an important part in plant classification. Plants are often sorted completely

based on the different components of plants. Leaf image classification technique is that the most popular selection compared to strategies like Cell biology or Molecule biology strategies for leaf plant classification. Hence for the aim of plant classification, recognizing its individual leaf image may be a straightforward and easier manner. Every leaf image is classed through variety of connected processes. At first an information base is formed from the sample pictures of all types of leaves. Every leaf image is connected to the corresponding plant details. Once the leaf image is uploaded to system then its essential options are known and recorded using image process strategies [1].

Our dataset consists of various plant leaf pictures. Here we are creating the folder for every of the plant leaf pictures and every folder consists of various orientation of an equivalent plant leaf and additionally the various growth stages of the plant leaf The image is uploaded then classified based on the image present in the dataset If the image satisfies the feature of any of the image folder present in the dataset then the system outputs that this plant leaf is medicinal and displays its name.

2. RELATED WORK

The best supervised classification algorithm 'K Nearest Neighbor' for classifying the leaves. The dataset was partitioned off into 2 equal elements

and trained the knn classifier victimization one 0.5 and remaining 0.5 was used for testing. The inputs equipped to the k-nn classifier were the coalesced feature vectors and corresponding class labels. The geometrician distance is employed for distance measurement between feature points within the Vector area. The formula has totally different behavior supported k, wherever k is that the range of neighbors thought-about. K-nearest neighbor formula may be a methodology for classifying objects supported nearest coaching examples within the feature area. Coaching method for this formula solely consists of storing feature vectors and labels of the coaching pictures [2].

PCA may be a helpful applied math technique that has found application in fields like face recognition and image compression, and may be a common technique for locating patterns in knowledge of high dimension. Say we've twenty pictures. Every image is pixels high by pixels wide. For every image we will produce a picture vector. We will then place all the photographs along in one massive image-matrix which provides a start line for our PCA analysis. Once we've performed PCA, we've our original knowledge in terms of the eigenvectors we have a tendency found from the variance matrix [17].

3. PROPOSED SYSTEM

The proposed system can browse the image from the file. The leafed image is pre-processed via image processing technique. After pre-processing the openCV tool and python programming are used for Different types of extraction of the textual characteristics of plants The leaf image and these extracted features are used for Identification of the medicinal plant by SVM classifier. It comes in an intuitive environment and there is no risk in identifying the medicinal leaf because it is not free of human errors. The user can get the correct result that varies up to 91% accurate. The new system will be much better performance compared to the existing one, because this dataset is made up of images with different leaves orientation and also with the growth from its tender phase to mature phase.

The way toward preparing an AI model includes furnishing an AI calculation with preparing

information to gain from. The preparation information must contain the right answer, which is known as a target or target characteristic. The learning calculation discovers designs in the preparation information that map the info information ascribes to the objective, and it yields a ML model that catches these examples. In proposed framework 80% of the dataset is utilized for preparing the model.

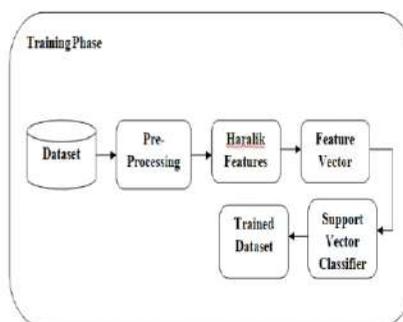


Fig 1: Training Phase

The machine learning test phase involves the testing the proposed system using the test data set. The sample of data used to provide an impartial judgment evaluation of a final model suitable for training data set. 20% of the data set is used as test data.

Data set:

The dataset made up of different medicines images of plant leaves that are stored in folders. Every the folder consists of leaf images with different orientation of the same leaf of the plant and also of the different stages of growth of the leaf of the plant it has white as a background.

Pre-processing:

Image pre-processing is done to improve image quality for a different process. In the pre-processing of the proposed system is used removing the background area that can otherwise they dominate in the image to be analysed.

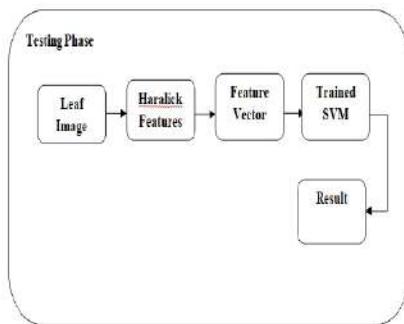


Fig 2: Testing Phase

Haralick Features:

The proposed system uses Haralick features extracted from foliar images and classification using the Support Vector Machine classifier. Haralick The texture is used to quantify an image based on structure. The fundamental concept involved in the calculation of the characteristics of Haralick Texture is gray Level recurrence matrix or GLCM. Gray Uses of the level recurrence matrix (GLCM) adjacency concept in pictures. The basic idea is looking for pairs of adjacent pixel values that occurs in an image and continues to record it on whole picture.

Here the surface highlights of the picture is extricated by utilizing the accompanying technique:

- The colour image is converted into grayscale image and it is represented in matrix form
- Then the gray levels are displayed corresponding to each pixel value i.e., 0-63=>0, 64-127=>1, 128-191=>2, 191-255=>3
- Traversed in horizontal direction to find the count of each level.
- Normalization is carried out by using

$$\left(\frac{[\sum_{i,j=0}^n (R_{i,j+1})]}{\text{total sum}} \right) \cdot$$

255	129	34	200
199	37	20	36
55	124	43	123
11	67	230	10

a) Pixel value of grayscale image

3	2	0	3
3	0	0	0
0	1	0	1
0	1	3	0

b) Gray levels conversion image

3	→	2	→	0	→	3
3	→	0	→	0	→	0
0	→	1	→	0	→	1
0	→	1	→	3	→	0

c) Selected direction of GLCM

	0	1	2	3
0	2	3	0	1
1	1	0	0	1
2	1	0	0	0
3	2	0	1	0

d) GLCM value

Support Vector Machine (SVM):

A Support Vector Machine (SVM) is a discriminative classifier formally defined by a separation plane. In other words, given labelled training data (supervised learning), the algorithm generates an optimal hyperplane such as categorize new examples. In two dimensions spaces where this hyper floor is a line dividing a floor two parts in which in each class lay on both sides.

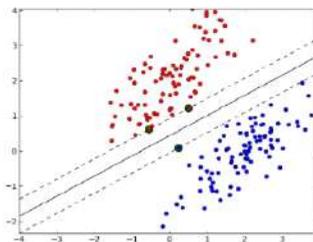


Fig 3: SVM Hyperplane

In more than one two-dimensional space the data is it cannot be classified linearly. Hence the function of the kernel it is used to classify this data. There are many kernels functions. Our proposed system uses the radial base kernel function (RBF).

The Radial basis kernel function, also called the RBF kernel. The RBF kernel is defined as

$$K_{RBF}(x, x') = \exp [-\gamma \|x-x'\|^2 / 2\sigma^2]$$

Where $\gamma=1/2\sigma^2$ is a parameter that sets the "diffusion" the kernel. If the two carriers are close together so $\|x-x'\|$ will be small as long as $\gamma > 0$, it follows that $-\gamma \|x-x'\|^2$ will be bigger. So closer

Vectors have a higher RBF kernel value than the next Carriers.
 Below it shows how the gamma value bends the axis to classify the test image where $\delta = 1 / C$

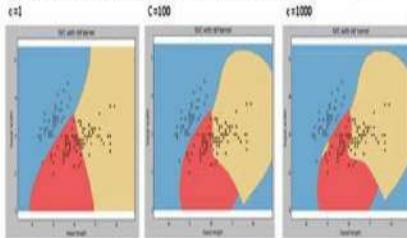


Fig 4: Image Classification Based on Gamma Value

4. EXPERIMENTAL RESULTS

Statistical Measures

Measure	Value	Derivations
Sensitivity	0.914	$TPR = TP / (TP + FN)$
Specificity	0.9694	$SPC = TN / (FP + TN)$
Precision	0.9694	$PPV = TP / (TP + FP)$
Negative Predictive Value	0.9314	$NPV = TN / (TN + FN)$
False Positive Rate	0.0306	$FPR = FP / (FP + TN)$
False Discovery Rate	0.0306	$FDR = FP / (FP + TP)$
False Negative Rate	0.0616	$FNR = FN / (FN + TP)$
Accuracy	0.9500	$ACC = (TP + TN) / (P + N)$
F1 Score	0.9500	$F1 = 2TP / (2TP + FP + FN)$
Matthews Correlation Coefficient	0.9008	$\frac{TP * TN - FP * FN}{\sqrt{(TP + FP) * (TP + FN) * (TN + FP) * (TN + FN)}}$

Sensitivity: It is also called as a real positive rate. Measure the percentage of positive staff that they are correctly identified as such.

Specificity: It is also called the real negative rate. Measure the percentage of real negatives that they are correctly identified as such.

Accuracy: It is also called positive predictive Value. It is the fraction of relevant cases between instances recovered.

Negative Predictive Value: it's outlined as proportion of expected negatives that square measure real negative. Reflects the likelihood that

associate expected the negative could be a true negative.

False Positive Rate: it's the likelihood of incorrectly rejecting the null hypothesis for a specific take a look at.

The false positive rate is calculated as a quantitative relation between the quantity of negative events erroneously classified as positive (false positives) and therefore the total range of actual negative events (regardless of classification).

False Discovery Rate: the false detection rate (FDR) could be a technique of conceptualizing the speed Type I errors within the null hypothesis check once conduct multiple comparisons.

False negative: this is often miscalculation within which a check result erroneously indicates no presence of a condition

Accuracy: tells however usually the classifier is correct?

F1 Score: it's the weighted average of the exactness and decision back. Therefore, this score takes each false positives and false negatives taken into thought.

Matthews Correlation Coefficient: take into consideration account for true and false positives and negatives it is typically thought about a balanced live that it will be used though the categories area unit terribly completely different size.

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A STUDY OF CONCEPTION ABOUT MUTUAL FUND & SIP V/S FIXED DEPOSITES

Vaishanvi Sharma
Sanskriti University, Mathura

Abstract

A mutual fund provides return on the amount invested, while an FD provides interest based return on the amount deposited. The returns on a fixed deposit are fixed and predefined at a standard rate of interest. This rate of interest is declared by bank based on RBI declared rates and varies from bank to bank.

Positive result, most frequently, in a herd of funds buying a stock, while negative result, most frequently, in a funds selling. These finding suggests that people are having less knowledge about mutual fund as compared to other investment avenues. Finally, I found that the selling of funds with greater career concerns (i.e., funds with poor past performance) plays a greater role because people think that particular fund is much better than the new one. Judge your risk appetite and investment time horizon well and understand your return expectation (which should be rational), before zeroing in on the type of investment avenue.

A Fixed Deposit offers pre-decided returns which do not change throughout the tenure of investments whereas Mutual Funds offer better returns on long-term investments as they are market-linked. Longer the tenure of investment, better the returns from Mutual Funds.

Keywords: - Fixed Deposits, Investment avenues, Mutual fund, Portfolio, Systematic Investment Plan

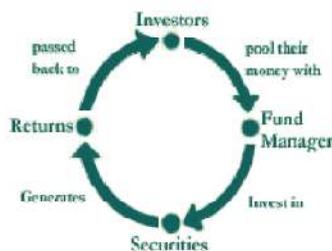
INTRODUCTION

In simple words, a mutual fund collects the savings from investor and investors invest them in government and other corporate securities and earn income through interest and dividend besides capital gain. It works on the principle of "small drop of water makes a big ocean."

Mutual funds are in the form of Trust (usually called Asset Management Company) that manages the pool of money collected from various investors for investment in various classes of assets to achieve certain financial goals. We can say that Mutual Fund is trusts which pool the savings of large number of investors and then reinvests those funds for earning profits and then distribute the dividend among the investors. In return for such services, Asset Management Companies charge small fees. Every Mutual Fund / launches different schemes, each with a specific objective. Investors who share the same objectives invest in that particular Scheme. Each Mutual Fund Scheme is managed by a Fund Manager with the help of his team of professionals (One Fund Manager may be managing more than one scheme also).

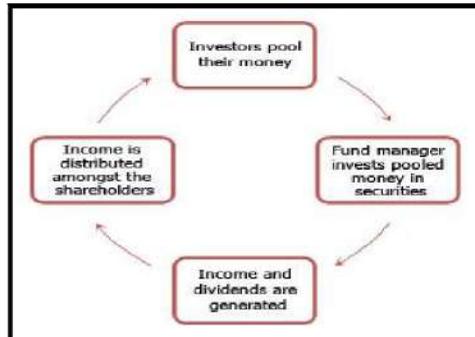
MUTUAL FUND

A Mutual Fund is a trust that pools the savings of a number of investors who share a common financial goal. The money thus collected is then invested in capital market instruments such as shares, debentures and other securities. The income earned through these investments and the capital appreciation realized is shared by its unit holders in proportion to the number of units owned by them. Thus a Mutual Fund is the most suitable investment for the common man as it offers an opportunity to invest in a diversified, professionally managed basket of securities at a relatively low cost. The flow chart below describes broadly the working of a mutual fund.



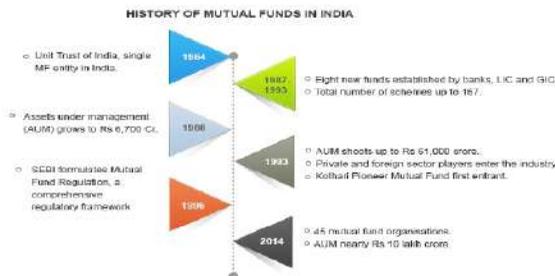
EVOLUTION OF MUTUAL FUNDS IN INDIA

As the name suggests, a 'mutual fund' is an investment vehicle that allows several investors to pool their resources in order to purchase stocks, bonds and other securities.



These collective funds (referred to as Assets under Management or AUM) are then invested by an expert fund manager appointed by a mutual fund company (called Asset Management Company or AMC).

The combined underlying holding of the fund is known as the 'portfolio', and each investor owns a portion of this portfolio in the form of units.



HISTORY OF MUTUAL FUND INDUSTRY IN INDIA

The mutual fund industry in India started in 1963 with the formation of Unit Trust of India (UTI) at the initiative of the Reserve Bank of India (RBI) and the Government of India. The objective then was to attract small investors and introduce them to market investments. Since then, the history of mutual funds in India can be broadly divided into six distinct phases.

Phase I (1964-87): Growth of UTI: In 1963, UTI was established by an Act of Parliament. As it was the only entity offering mutual funds in India, it had a monopoly. Operationally, UTI was set up by the Reserve Bank of India (RBI), but was later delinked from the RBI. The first scheme, and for long one of the largest launched by UTI, was Unit Scheme 1964. Later in the 1970s and 80s, UTI started innovating and offering different schemes to suit the needs of different classes of investors. Unit Linked Insurance Plan (ULIP) was launched in 1971. The first Indian offshore fund, India Fund was launched in August 1986. In absolute terms, the investible funds

corpus of UTI was about Rs 600 crores in 1984. By 1987-88, the assets under management (AUM) of UTI had grown 10 times to Rs 6,700 crores.

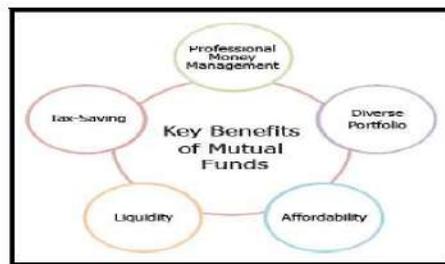
Phase II (1987-93): Entry of Public Sector Funds: The year 1987 marked the entry of other public sector mutual funds. With the opening up of the economy, many public sector banks and institutions were allowed to establish mutual funds. The State Bank of India established the first non-UTI Mutual Fund, SBI Mutual Fund in November 1987. This was followed by Can bank Mutual Fund, LIC Mutual Fund, Indian Bank Mutual Fund, Bank of India Mutual Fund, GIC Mutual Fund and PNB Mutual Fund. From 1987-88 to 1992-93, the AUM increased from Rs 6,700 crores to Rs 47,004 crores, nearly seven times. During this period, investors showed a marked interest in mutual funds, allocating a larger part of their savings to investments in the funds.

Phase III (1993-96): Emergence of Private Funds: A new era in the mutual fund industry began in 1993 with the permission granted for the entry of private sector funds. This gave the Indian investors a broader choice of 'fund families' and increasing competition to the existing public sector funds. Quite significantly foreign fund management companies were also allowed to operate mutual funds, most of them coming into India through their joint ventures with Indian promoters. The private funds have brought in with them latest product innovations, investment management techniques and investor-servicing technologies. During the year 1993-94, five private sector fund houses launched their schemes followed by six others in 1994-95.

Phase IV (1996-99): Growth and SEBI Regulation: Since 1996, the mutual fund industry scaled newer heights in terms of mobilization of funds and number of players. Deregulation and liberalization of the Indian economy had introduced competition and provided impetus to the growth of the industry. A comprehensive set of regulations for all mutual funds operating in India was introduced with SEBI (Mutual Fund) Regulations, 1996. These regulations set uniform standards for all funds. Erstwhile UTI voluntarily adopted SEBI guidelines for its new schemes. Similarly, the budget of the Union government in 1999 took a big step in exempting all mutual fund dividends from income tax in the hands of the investors. During this phase, both SEBI and Association of Mutual Funds of India (AMFI) launched Investor Awareness Programmed aimed at educating the investors about investing through MFs

Phase V (1999-2004): Emergence of a Large and Uniform Industry: The year 1999 marked the beginning of a new phase in the history of the mutual fund industry in India, a phase of significant growth in terms of both amount mobilized from investors and assets under management. In February 2003, the UTI Act was repealed. UTI no longer has a special legal status as a trust established by an act of Parliament. Instead it has adopted the same structure as any other fund in India - a trust and an AMC. UTI Mutual Fund is the present name of the erstwhile Unit Trust of India (UTI). While UTI functioned under a separate law of the Indian Parliament earlier, UTI Mutual Fund is now under the SEBI's (Mutual Funds) Regulations, 1996 like all other mutual funds in India. The emergence of a uniform industry with the same structure, operations and regulations make it easier for distributors and investors to deal with any fund house. Between 1999 and 2005 the size of the industry has doubled in terms of AUM which has gone from above Rs 68,000 crores to over Rs 1,50,000 crores.

Phase VI (From 2004 Onwards): Consolidation and Growth: The industry has lately witnessed a spate of mergers and acquisitions, most recent ones being the acquisition of schemes of Allianz Mutual Fund by Birla Sun Life, PNB Mutual Fund by Principal, among others. At the same time, more international players continue to enter India including Fidelity, one of the largest funds in the world.



Gone are the days where having enough savings is enough for one to be financially secured. As you retire, your savings could be gone in just a few years or less and you'll be left only with nothing. To prevent this from happening, financially responsible individuals turn into investing as they see a potential growth of money in here that is based on a long-term goal. This is what mutual funds are basically about.

According to the Philippine Investment Funds Association (PIFA), a mutual fund is an investment company that pools investments of

many individual and institutional investors to form a massive asset base, which are then entrusted to a full time professional fund manager who develops and maintains a diversified portfolio of security investments. The Calico Foundation for Education, Inc. recently conducted a seminar about mutual funds and we are sharing with you some insights about this investment instrument. Here the advantages of a mutual fund investment.

Professional management

Full time professional fund managers are responsible for analyzing and identifying which equities or funds are best to grow your money with. With this, you don't have to worry about making time to check updates for yourself. They provide you with information you need to know about your investment.

Low capital requirement

Unlike any other investments requiring very large amounts of money, mutual funds only require at least P5,000 as an initial investment and P1, 000 minimum for every additional investment. This is suitable for anyone for as long as you have a steady income, you can invest.

Diversification

Mutual funds aren't a fixed investment. The adage, "do not put all your eggs in one basket" is especially true in mutual funds as you can put your money anywhere in its diverse field of equities, bonds, and funds that will best grow your investment.

Liquidity

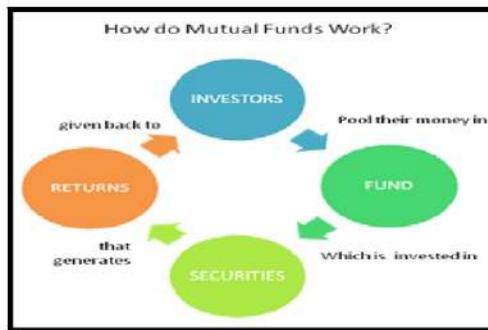
In case you need to withdraw the amount you invested in mutual funds, you can always pull it out anytime you want as it always has a buyer in waiting. Redemption processes can just take up to 7 days (as required by the law) or even within the day, if you really urgently need it.

Security

No one else can pull out your money. When you invest in mutual funds, your investment is directed to a custodian bank for safekeeping. No one is allowed to withdraw or even touch it without the fund manager's order upon your request. Daily reports are submitted and are highly monitored by Securities and Exchange Commission and PIFA.

Optimized returns

According to the Calico Foundation, because a mutual fund is managed as a single portfolio, it is able to take advantage of certain economies of scale. For instance, with its millions under management, it can negotiate for lower stockbrokerage fees or command higher interest rates on fixed-income investments.



Why should you invest through Mutual Funds?

Firstly, we are not all investment professionals. We go to a doctor when we need medical advice or a lawyer for legal guidance, similarly mutual funds are investment vehicles managed by professional fund managers. And unless you rate highly on the Investment IQ Quiz, we recommend you use this option for investing. Mutual funds are like professional money managers, however a key factor in their favor is that they are more regulated and hence offer investors the ability to analyze and evaluate their track record.

Secondly, investing is becoming more complex. There was a time when things were quite simple - the market went up with the arrival

of the first monsoon showers and every year around Diwali. Since India started integrating with the world (with the start of the liberalization process), complex factors such as an increase in short-term US interest rates, the collapse of the Brazilian currency or default on its debt by the Russian government, have started having an impact on the Indian stock market. Although it is possible for an individual investor to understand Indian companies (and investing) in such an environment, the process can become fairly time consuming. Mutual funds (whose fund managers are paid to understand these issues and whose Asset Management Company invests in research) provide an option of investing without getting lost in the complexities. Lastly, and most importantly, mutual funds provide risk diversification: Diversification of a portfolio is amongst the primary tenets of portfolio structuring (see The Need to Diversify). And a necessary one to reduce the level of risk assumed by the portfolio holder. Most of us are not necessarily well qualified to apply the theories of portfolio structuring to our holdings and hence would be better off leaving that to a professional. Mutual funds represent one such option.



Why Choose Mutual Funds?

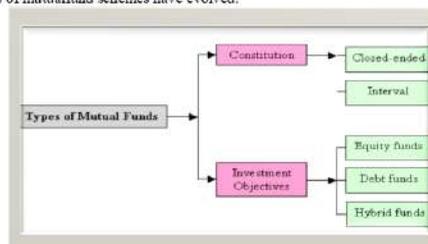
Mutual funds are investment vehicles, and you can use them to invest in asset classes such as equities or fixed income. Money control recommends that you use the mutual fund investment route rather than invest yourself, unless you have the required temperament, aptitude and technical knowledge.

In this article we discuss why and how you should choose mutual funds. If you would like to familiarize yourself with the basic concepts and workings of a mutual fund, Understanding Mutual Funds would be a good place to start.

A mutual fund is a trust that pools the savings of a number of investors who share a common financial goal. The money thus collected is invested in capital market instruments such as shares, debentures, and other securities. The income earned through these investments is shared by its unit holders in proportion to the number of units owned by them. Thus a Mutual Fund is the most suitable investment for the common man as it offers an opportunity to invest in a diversified, professionally managed basket of securities at a relatively low cost. Investments in securities are spread across a wide cross section of industries and sectors and thereby reduce the risk. Asset Management Companies (AMCs) normally come out with a number of schemes with different investment objectives from time to time. A mutual fund is required to be registered with the Securities and Exchange Board of India (SEBI), which regulates securities markets before it can collect funds from the public.

TYPES OF MUTUAL FUND SCHEMES

The objectives of mutual funds are to provide continuous liquidity and higher yields with high degree of safety to investors. Based on these objectives, different types of mutual fund schemes have evolved.





Functional Classification

1. Open-ended schemes: In case of open-ended schemes, the mutual fund continuously offers to sell and repurchase its units at net asset value (NAV) or NAV-related prices. Unlike close-ended schemes, open-ended ones do not have to be listed on the stock exchange and can also offer repurchase soon after allotment. Investors can enter and exit the scheme any time during the life of the fund. Open-ended schemes do not have a fixed corpus. The corpus of fund increases or decreases, depending on the purchase or redemption of units by investors. There is no fixed redemption period in open-ended schemes, which can be terminated whenever the need arises. The fund offers a redemption price at which the holder can sell units to the fund and exit. Besides, an investor can enter the fund again by buying units from the fund at its offer price. Such funds announce sale and repurchase prices from time-to-time. UTI's US-64 scheme is an example of such a fund. The key feature of open-ended funds is liquidity. They increase liquidity of the investors as the units can be continuously bought and sold. The investors can develop their income or saving plan due to free entry and exit frame of funds. Open-ended schemes usually come as a family of schemes which enable the investors to switch over from one scheme to another of same family.

2. Close-ended schemes: Close-ended schemes have a fixed corpus and a stipulated maturity period ranging between 2 to 5 years. Investors can invest in the scheme when it is launched. The scheme remains open for a period not exceeding 45 days. Investors in close-ended schemes can buy units only from the market, once initial subscriptions are over and thereafter the units are listed on the stock exchanges where they can be bought and sold. The fund has no interaction with investors till redemption except for paying dividend/bonus. In order to provide an alternate exit route to the investors, some close-ended funds give an option of selling back the units to the mutual fund through periodic repurchase at NAV related prices. If an investor sells units directly to the fund, he cannot enter the fund again, as units bought back by the fund cannot be reissued. The close-ended scheme can be converted into an open-ended one. The units can be rolled over by the passing of a resolution by a majority of the unit-holders.

3. Interval scheme: Interval scheme combines the features of open-ended and close-ended schemes. They are open for sale or redemption during predetermined intervals at NAV related prices.

Portfolio Classification

Here, classification is on the basis of nature and types of securities and objective of investment.

1. Income funds: The aim of income funds is to provide safety of investments and regular income to investors. Such schemes invest predominantly in income-bearing instruments like bonds, debentures, government securities, and commercial paper. The return as well as the risk is lower in income funds as compared to growth funds.

2. Growth funds: The main objective of growth funds is capital appreciation over the medium-to-long-term. They invest most of the corpus in equity shares with significant growth potential and they offer higher return to investors in the long-term. They assume the risks associated with equity investments. There is no guarantee or assurance of returns. These schemes are usually close-ended and listed on stock exchanges.

3. Balanced funds: The aim of balanced scheme is to provide both capital appreciation and regular income. They divide their investment between equity shares and fixed income bearing instruments in such a proportion that, the portfolio is balanced. The portfolio of such funds usually comprises of companies with good profit and dividend track records. Their exposure to risk is moderate and they offer a reasonable rate of return.

4. Money market mutual funds: They specialize in investing in short-term money market instruments like treasury bills, and certificate of deposits. The objective of such funds is high liquidity with low rate of return.

Other classification

- 1. Sectoral:** These funds invest in specific core sectors like energy, telecommunications, IT, construction, transportation, and financial services. Some of these newly opened-up sectors offer good investment potential.
- 2. Tax saving schemes:** Tax-saving schemes are designed on the basis of tax policy with special tax incentives to investors. Mutual funds have introduced a number of tax-saving schemes. These are close-ended schemes and investments are made for ten years, although investors can avail of encashment facilities after 3 years. These schemes contain various options like income, growth or capital application. The latest scheme offered is the Systematic Withdrawal Plan (SWP) which enables investors to reduce their tax incidence on dividends from as high as 30% to as low as 3 to 4%.
- 3. Equity-linked savings scheme (ELSS):** In order to encourage investors to invest in equity market, the government has given tax-concessions through special schemes. Investment in these schemes entitles the investor to claim an income tax rebate, but these schemes carry a lock-in period before the end of which funds cannot be withdrawn.

SIP PLAN IN INDIA

Systematic Investment Plan in Mutual Fund is commonly named SIP – is really getting popular in India. Systematic Investment Plan is such a beautiful tool, which if used properly can help you to achieve all your financial goals.



What is Systematic Investment Plan?

We all have various financial obligations. Some of them like daily needs, school fees, etc involve the major outgo of your cash. Others like trip for your family or buying a fancy gizmo entails a onetime payments for which money can be relatively easily collected. But for long term goals like retirement or purchasing a home require you to save and invest for many years. Yet irrespective of the amount involved and the time horizon, planning and investing money systematically and regularly enables you to sail through these obligations. A SIP could prove to be a simple and effective solution toward achieving these goals.

A SIP is a method of investing in mutual funds, by investing a fixed sum at a regular frequency, to buy units of a mutual fund schemes. It is quite similar to a recurring deposit of a bank or post office. For the convenience, an investor could start a SIP with as low as Rs 500; however this amount may differ from one fund house to other.

Benefits of Systematic Investment Plan

- 1) What is your equation to investments?
EARN->SPEND->SAVE OR EARN->SAVE->SPEND
The first is a wrong way of investing. You should be saving in a disciplined manner and SIP enables you to follow the second, which is the correct equation of investments.
 - 2) Power of compounding: SIP makes sure that you are not only benefited on your investment but you also get returns over the interest which in overall will result generating greater returns.
 - 3) Easy, Flexibility and Liquidity: SIP is easy to start, manage and stop. It gives you flexibility to choose a desired scheme or to withdraw in parts. And with conditions you have the money for contingency and emergency use.
 - 4) You can also do SIP in ELSS (Equity Linked Saving Scheme) to save tax under section 80 C.
- To check complete list of benefits – you must read this article “Benefits of Investing systematically.”

Promotion of sip plan (systematic investment plan)

Periodic investments are referred to as SIP.

That means every month you commit to investing, say, Rs 1000 in your fund. At the end of a year, you would have invested, Rs 12000 in your fund.

Let say NAV on day you invest in the first month is Rs 20; you will get 50 units.

Next month NAV is 25 you will get 40 units. The following month NAV is Rs 18, and you will get 55.56 units.

So after three months you would have 145.56 units. On an average, you would have paid around Rs 21 per unit. This is because, when the NAV is high, you get fewer units per Rs 1000.

When the NAV falls, you get more units per Rs 1000.

NAV (NET ASSET VALUE)

Net Asset Value The net asset value of a fund is the market value of the assets minus the liabilities on the day of valuation. In other words, it is the amount which the shareholders will collectively get if the fund is dissolved or liquidated. The net asset value of a unit is the net asset value of fund divided by the number of outstanding units.

Thus $NAV = \text{Market Price of Securities} + \text{Other Assets} - \text{Total}$

$\text{Liabilities} + \text{Units Outstanding as at the NAV date. } NAV = \text{Net Assets of the Scheme} + \text{Number of units}$

$\text{Outstanding, that is, Market value of investments} + \text{Receivables} + \text{Other Accrued Income} + \text{Other Assets} - \text{Accrued Expenses} - \text{Other Payables} - \text{Other Liabilities} + \text{No. of units outstanding as at the NAV date.}$

A fund's NAV is affected by four sets of factors: purchase and sale of investment securities, valuation of all investment securities held, other assets and liabilities, and units sold or redeemed. SEBI has issued guidelines on valuation of traded securities, thinly traded securities and non-traded securities. These guidelines were issued to streamline the procedure of calculation of NAV of the schemes of mutual funds.

The aggregate value of illiquid securities as defined in the guidelines shall not exceed 15% of the total assets of the scheme and any illiquid securities held above 15% of the total assets shall be valued in the manner as specified in the guidelines issued by the SEBI. Where income receivables on investments has accrued but has not been received for the period specified in the guidelines issued by SEBI, provision shall be made by debiting to the revenue account the income so accrued in the manner specified by guidelines issued by SEBI.

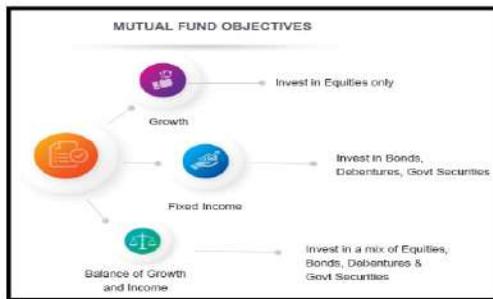
OBJECTIVE OF THE STUDY

1. To build a trust and confidence, to meet his /her goals, with the current situation and future plan.
2. To grow, a base about the mutual fund performance (Innovative thinking)

3. To won the interest according to the risk tolerance level.
4. To have the trust on mutual fund and SIP plan in terms of tax situation.

Many of you may be quite familiar with this traditional investment instrument that is considered safe and caters to the needs of a large category of investors in India, even today. Being a financial instrument provided by banks in India, it offers returns better than the regular savings account and hence enjoys an edge when it comes to earning better returns on one's savings. Yes, we are talking about 'Fixed Deposits'.

It usually ends up in a long debate when it comes to comparing fixed deposits with other investment avenues like mutual funds. In our learning session today, we'll try to present a clear and unbiased comparison which may help you choose a suitable investment avenue (i.e. Mutual Funds or Fixed Deposits) to meet your financial goals.



Mutual Funds vs. Fixed Deposits

Parameters	Mutual Funds	Fixed Deposits
Rate of Returns	No Assured Returns	Fixed Returns
Inflation Adjusted Returns	Potential for High Inflation-adjusted Returns	Usually Low inflation-adjusted Returns
Risk	Medium to High Risk	Low Risk
Liquidity	Liquid	Medium to Low Liquidity
Premature Withdrawal	Allowed with Exit Load	Allowed with Penalty
Cost of Investment	Management Cost	No Cost
Tax Status#	Favorable Tax Status	As Per Tax Slab

Taxation details are as per existing tax laws. The nature of tax will depend based on the individual's tax status and nature of investments

In terms of Rate of Returns: while the interest rate offered on fixed deposits are pre-specified and fixed for the entire tenure, the returns on mutual funds may vary based on the market movement. While mutual funds offer you the benefit of market-linked returns, they have the potential to earn high returns in the form of capital appreciation during positive market conditions. On the other hand, fixed deposits would continue to offer you the same interest rates even if markets turned negative or positive. So usually mutual funds outscore fixed deposits during positive market conditions, and underscore fixed deposits during negative market conditions.

We all know that inflation eats a major chunk of our savings in terms of loss in the value of money. So you need to keep pace with inflation. Your investments would be worthy only if they are able to offer you decent **Inflation-adjusted returns**. Assume you have invested in a Fixed Deposit offering interest @ 9% p.a. while the rate of inflation is 8%; your inflation-adjusted return would be only 1%. It is quite obvious that you would like to look beyond this rate. Mutual funds have the ability to offer you better inflation-adjusted returns. But do not forget, they come with a relatively higher risk.

So what is the **risk** associated with these instruments? While bank fixed deposits are known for low risk, mutual funds carry market risk which is higher than fixed deposits. So you should consider your risk appetite while opting between bank's fixed deposits and mutual funds. Also, recognize that High Return comes with High Risk

In terms of liquidity: Fixed deposits come with a fixed tenure and offer medium to low liquidity option until you complete the entire tenure of the deposit. On the other hand most mutual funds do offer liquidity to its investors but with certain conditions.

As we mentioned earlier, you may need to pay a penalty for **premature withdrawal** of your fixed deposits, where you would lose out a portion of your expected return. On the other hand, most mutual funds offer you high liquidity, once the minimum holding period is complete. In case you happen to withdraw immediately after your investment (usually within a period of 1 year), then you may have to pay an exit load which is usually around 1%. Exit load conditions may vary from one fund to another. So you should be aware about the exit clause of the mutual funds you are investing in.

Cost of investment / expenses: There is a cost associated with your investment in mutual funds and it depends on the category of mutual fund you are investing in. While a liquid fund may have a low expense of up to 1% p.a., debt mutual funds may have anywhere between 0.5% p.a. to 2.25% p.a., and the expense of equity mutual funds may be up to 3% p.a. This expense is adjusted in your returns. So the returns yielded are post expenses. On the other hand, bank fixed deposits offer an advantage on this parameter, as they do not levy any expense on the depositor. And you get the entire rate of interest promised by the bank.

Tax Status is an important aspect which should be considered while choosing between mutual funds and fixed deposits. You would agree that you will like to make high post-tax returns from your investment. In our previous session we told you about the tax implications on your mutual fund investment. The tax status of mutual funds is based on their category. While you need not pay any long term capital gain tax on your investment in equity mutual funds, the short term gain is taxable @ 15%. On the other hand your gains from long term investment in debt mutual funds (i.e. over a period of 1 year) is taxable @ 20% with indexation and 10% without indexation (whichever is lower); while your short term capital gain from debt and liquid mutual funds is taxable as per your income tax slab. As far as fixed deposits are concerned, irrespective of the tenure, the interest which you earn thereon is taxable as per your income tax slab. So, as per the current tax laws mutual funds are quite tax friendly, provided you have held on for more than a year and you are in the highest tax slab.

METHODOLOGY:-

Study based on learnings of mutual fund and sip plan

Sources of data :-

Primary Domain: personal Meetings, Callings, mails and conducted conferences.

Primary Mechanism: - Internet, magazines, brochures and reference book of mutual fund and SIP plan.

TAX BENEFITS OF MUTUAL FUNDS		
Comparison of Income Funds with Bank Deposits		
	Bank Deposits	Mutual Funds*
Corporate (35% Tax Bracket)		
Pre tax return	12.0%	12%
Tax Deduction	4.2%	0%
After tax return	7.8%	12%
Individuals (10% Tax Bracket)		
Pre tax return	12.0%	12%
Tax Deduction	1.2%	0%
After tax return	10.8%	12%

Investing in a very open-end fund is an alternate to investment in individual stocks, with the capitalist shopping into a fund that has skilled managers World Health Organization use the pooled resources of the many investors to get stock in multiple corporations. The expansion of an open-end fund depends on the performance of the stocks it includes; similarly as once the managers get and sell shares. Mutual funds square measure normally won't to then again retirement or diversify a portfolio.

To some investors, this convenience can seem like a lack of control. An individual investor has no say in the day-to-day management of the fund, despite having money tied up in it. This makes mutual funds a better option for investors with less of a hands-on approach to investing.



Convenience

One of the main blessings of an open-end investment company is convenience. Once selecting an open-end investment company to speculate in, the capitalist doesn't need to actively manage the account or perhaps follow the progress of the stocks within the fund. Instead, skilled managers with expertise in shopping for and merchandising stocks keep track of market trends and create the choice to shop for or sell for the fund's investors.

Diversification

Mutual funds embrace stocks from many alternative corporations. This kind of diversification is on the far side about the wealthiest non-public investors. It spreads out the investors' risk equally among all of the businesses within the fund, so although one among the stocks falls sharply, different stocks within the fund can facilitate minimize the fund's losses. Mutual funds conjointly use every stock they contain as a possible supply of gains, with fund managers ready to invest a lot of heavily incorporated companies poised for growth by drawing cash out of underperforming stocks or those who seem to possess reached peak worth.

Risk

The diversification of an investment trust makes it less risky than shopping for a personal stock, however mutual funds are a unit still not the safest investment possibility. Government bonds provide an almost unharmed possibility, however with restricted area for growth. Totally different mutual funds have managers United Nations agency use their own methods, some a lot of aggressive and risky than others. A capitalist must always examine a mutual fund's past performance before selecting to speculate.

Fees

Mutual fund managers charge fees which will scale back the profit of investment in mutual funds or amplify the losses. These embody load charges and back-end charges, that managers charge after they purchase or sell shares, severally.

Choice of Investments

Some mutual funds use stocks from throughout the securities market. Others trust stocks in a very single business or sector of the economy. As an example, investors will prefer to invest in a very technical, investment trust that solely buys stock in tech firms. Mutual funds exist for nearly each sort of business, giving investors an alternative of what a part of the economy to speculate in. Moral issues conjointly drive mutual funds, like those who solely invest in firms with study environmental records and progressive policies.

FINDINGS AND SUGGESTIONS

Lack of hope is the major barrier

Investors at the sell stage by and huge don't extremely trust mutual funds as a decent investment vehicle. This can be quite obvious to all or any folk distributors and is additionally seen within the shrinking investment trust folios at the same time as home savings still grow.

For a typical retail capitalist, post workplace, fastened Deposit, insurance etc is nice for minute terms similarly as prolonged term wants. Once it involves company, mutual funds are unit seen as an efficient investment vehicle. The apparent reason behind this disconnect is that for retail investors, investment trust suggests that securities market and for corporate, investment trust suggests that a tax economical entry into debt markets.

Weak equity market returns over last many years have created the retail capitalist cautious regarding mutual funds. Beside the distrust regarding the investment trust product, investors begin distrusting the investment trust distributor, since he's the face of the merchandise for them.

Will it mean we have a tendency to stop distributing mutual funds? Will it mean we have a tendency to too begin basic cognitive process that mutual funds don't seem to be meant for retail investors which they ought to be in hand solely by company investors? If we have a tendency to believe that mutual funds have an area in each retail investor's portfolio, however will we initial produce associate atmosphere of trust and confidence in ourselves and so within the open-end investment company product

The illustration here can help you understand the comparison better.....

Mutual Funds vs. Fixed Deposits

	Fixed Deposits	Debt Mutual Fund	Equity Mutual Fund
Investment Amount	100,000	100,000	100,000
Return (% p.a.)	9.0%	9.0%	9.0%
Holding Period	1 Year	1 Year	1 Year
Fund Value	109,000	109,000	109,000
Inflation	7.5%	7.5%	7.5%
Indexed Investment Amount	-	107,500	-
Taxable Income	9,000	1,500	-
Tax Paid (as applicable)	2,700	300	-
Post Tax Returns	6,300	8,700	9,000
Post Tax Returns (%)	6.3%	8.7%	9.0%

...Here are 3 scenarios which show an investment of Rs 1 Lac each, in a bank fixed deposit, debt mutual fund and equity mutual fund. We've assumed in a given year, all 3 investments deliver a return of 9%. Further the assumption is that inflation will grow at 7.5% in the given year.

So you see... Rs 1 Lac invested is now Rs 1.09 Lac in each of the investment avenues. But in case of fixed deposits, with the interest income being taxable as per tax slab of an investor, the gain of Rs 9,000/- which the investor earns would further reduce to Rs 6,300/- assuming one happens to be placed in the highest tax slab of 30% (where he would have to pay a tax amounting to Rs 2,700/-). So the post-tax returns would be 6.3% in the given year in case of FD.

Mutual Fund	3 Years Investment 36000		5 Years Investment 60000		10 Years Investment 120000		12 Years Investment 144000	
	%	Amount	%	Amount	%	Amount	%	Amount
Birla Sun Life Equity Fund	26	51990	17	92033	29	570925	27	847695
DSP BR Equity Fund	30	55142	22	103852	32	656368	28	890730
Franklin India Blue Chip Fund	28	54785	20	98935	29	549491	27	860441
HDFC Equity Fund	39	61979	26	112626	34	721916	32	1142897
HDFC Top 300 Fund	34	57900	24	109045	33	706670		
ICICI Prudential Growth Fund	25	51186	16	90158	25	437115	22	616589
Reliance Growth Fund	29	54014	21	100716	38	901404	35	1407815
Reliance Vision Fund	25	51789	17	91941	33	677154	31	1078457
SBI Magnum Global Fund	29	54249	16	88337	31	607379	26	793162
Sundaram Growth Fund	24	50576	15	88069	25	458342	22	617858
Tata Pure Equity Fund	27	52625	19	95385	29	554004	25	727228

However, in the case of the debt mutual fund, with an indexation benefit available on account of long term capital gain (since having invested for over 1 year), the cost of investment is raised to Rs 1,07,500/- (due to inflation factor) instead of Rs 1Lac. Thus considering the indexed cost, the taxable gain would be Rs 1,500/- instead of the original gain of Rs 9,000/-. Here the investor pays long term capital gain tax @ 20% (as he has claimed indexation benefit) and hence the post-tax returns (over a period of 1 year) would be 8.7%, which is higher than the bank fixed deposit.



In the case of the equity mutual fund, the entire long term capital gain of Rs 9,000/- made on equity mutual fund is tax free and available to the investor, proving to be the most tax-efficient in the above illustration.

But you should choose your investment avenue wisely. Judge your risk appetite and investment time horizon well and understand your return expectation (which should be rational), before zeroing in on the type of investment avenue.

Best Systematic Investment Plans in India

**Calculations are done on 1st day of 2011 – Monthly Investment of Rs 1000*

I will again say Best comes after postmortem report – you should see them as Top Systematic Investment Plans in Last 10 Years or just Systematic Investment Plan Comparison.

Calculations are done on Rs 1000 per month investment to keep things simple. If you would like to calculate for Rs 5000 or Rs 1000 – you can multiply the amount by 5 or 10.

Two Paces to beat the idea area

This is what I even have been that specialize in over the last two months. There square measure 2 things I spotted after I started considering a way to modify my approach to spice up the investors' confidence in mutual funds.

(1) Foremost facilitate shoppers with their tiny term goals, and then tackle the long term goal.

In our enthusiasm to induce our shoppers to adopt a goal based mostly approach towards their investments, we regularly get straight to their massive future goals - that square measure many years down the road - like children's education or retirement. These goals square measure most significant - however fulfillment is a few years away. However can associate in nursing capitalist gain confidence within the product till it truly permits him to fulfill these obligations many years later? And, whereas he's often saving up for that goal, if he sees his savings quantity erode attributable to market fluctuations, his confidence can naturally go down. He sees on the one hand his bank deposits square measure safe and secure whereas his equity SIPs has lost worth. Naturally, his confidence can come back down - Associate in nursing it becomes an uphill task for U.S. to revive his confidence. The fact is that additionally to those future goals, investors have more short term goals that they 'resaving cash. Someone is also saving cash to gather the deposit for a house, someone is also saving for a brand new automotive, and someone is also saving for an enormous annual vacation. We have a tendency to complete that if we have a tendency to can't fulfill their short term desires; it's arduous for them to believe U.S. on their future monetary goals. We want to 1st show them sensible ways that to save lots of for these short term desires and build their confidence in U.S. and in our product. That confidence can facilitate them remain course once their savings for future goals undergo fluctuations attributable to market volatility. For short term desires, there square measure a spread of fine increase based mostly debt funds which will facilitate our investors far better than simply accumulating balances in their bank account. Only a few investors square measure extremely tuned in to these product - as a result of they still believe that mutual funds square measure all concerning equity.

(2) Go pace by pace - like however my priest trained wealth managing to Money.

My father, in my childhood days opened my savings checking account and gave Money the bankbook. He typically asked Money to deposit and withdraw cash. Later, he suggested Money to begin up a revenant Deposit within the bank out of my savings from my pin money. Later, he asked Maine to convert the RD quantity into a FD and after I got into my job, he then educated Maine equity investment and began my SIP.

This looks to be a logical approach and that i thought lets teach the shopper the natural approach of learning finance. With the assistance of Reliance Investment Company that offered ATM with their liquid fund investments, we have a tendency to started lecture investors concerning it. Earlier, there was resistance as they weren't comfy with the name investment company, however we have a tendency to asked them simply to deposit Rs. 5000 and so withdraw constant when it slow. That gave them the lot of required confidence. A typical capitalist would 1st invest a really bit and bit by bit, he started parking a considerable quantity of his liquidity in these funds.

SIP in debt funds was next logical step to U.S... Indians like to save often which is kind of visible with the success of all revenant plans by banks, post workplace or maybe insurance like jeevansara. We have a tendency to then started promoting SIP in Debt funds and that we selected short term funds for constant. Templeton Asian nation Short Term financial gain arrange was our favorite selection however they didn't have SIP conception therein fund. With elaborated discussion with linear unit management,



they initiated SIP within the same fund. Truth the very fact the actual fact) is currently they additionally show SIP come in their fact sheets. Gradually, liquid fund and SIP in debt fund was one thing that gave them a lot of required confidence to folks at massive. Soon, we have a tendency to started lump sum investment in increase based mostly debt product which gave our Aim Shunrikyo an enormous elevate moreover. Current debt market state of affairs might not be contributing, however I'm certain with increase strategy, and we are going to be able to ace the storm. We have a tendency to ne'er suggest dynamic bond funds or future bond funds to investors. What was vital to relinquish them consistency and not high come.

ANALYSIS & INTERPRETATION

Top 10 Infrastructure Mutual Funds									
Myinvestmentideas.com									
Mutual Fund Scheme	Cricil Rank	Value Research Rating (Out of 5)	AUM (Rs Crs)	3 mth	6mth	1yr	3yr	5yr	
Birla SL Infrastructure	Rank 1	5 Star	288	44%	42%	47%	10%	9%	
HDFC Infrastructure Fund	Rank 3	4 Star	483	51%	49%	43%	6%	9%	
DSP-BK India TIGER	Rank 2	3 Star	977	44%	38%	35%	9%	8%	
ICICI Pru Infrastructure	Rank 3	2 Star	1174	45%	41%	44%	8%	8%	
Tata Infrastructure Fund	Rank 3	2 Star	884	30%	34%	28%	3%	4%	
IITI Infrastructure Fund	Rank 3	1 Star	1226	42%	38%	31%	5%	3%	
Reliance Divers. Power	Rank 4	-	1612	55%	47%	45%	1%	2%	
Sundaram Infrastructure	Rank 4	-	227	37%	48%	37%	-3%	0%	
SBI Infrastructure	Rank 5	1 Star	440	43%	32%	28%	2%	1%	
JM Basic Fund	Rank 2	-	139	33%	27%	27%	9%	-1%	

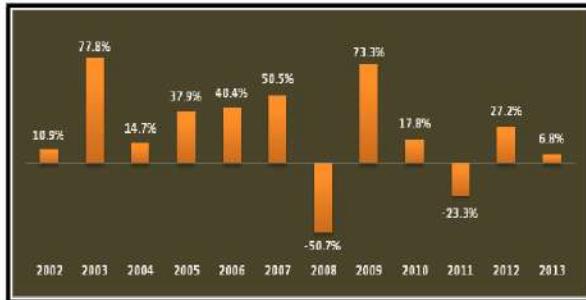
Source: Moneycontrol.com and Value Research Online. Data as on 31-May-14

COMPARE MUTUAL FUND PROFITS WITH FIXED DEPOSIT PROFITS IN BULL AND BEAR MARKET

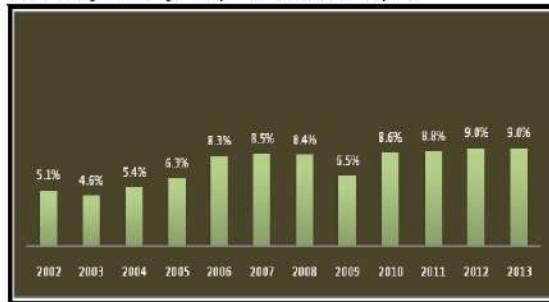
When it comes to mutual funds or equity investing, various perceptions are usually at play in the minds of the investors. Share markets are speculative. They can give good returns, but the investor can also lose a lot of money. As such, most investors in India prefer the safety of fixed deposits, which guarantees capital protection along with assured returns. While it is true that equities oriented mutual funds are riskier than fixed deposits, equity market professionals argue that equities provide much higher returns than fixed deposits in the long term. But many investors are still not impressed with that argument. Ask the investors who lost a huge portion of their equity investment in 2008. Investors are seen to be more biased to the avoidance of negative experiences. In psychological term, this is known as negativity bias, by which we recall bad memories more easily and in greater detail than good ones. This negative perception of risk associated with equity markets, still seems to be ruling the minds of average Indian retail investor despite the recent bullishness in the market. In this article, we will not go into perceptions regarding equity markets. Rather we will objectively look at returns given by mutual funds and fixed deposits, over the last 10 year period across different market cycles, both bull markets and bear markets. Investors can see for themselves, to what extent is their perception aligned with reality.

In the last 10 years we have gone through a long bull market from 2002 to 2007, recently again over the past year or so, and intermittent periods in between. However, during this period we also went through one of the worst recessions in 2008 and then again in 2011. By analyzing returns across both bull and bear market cycles investors can evaluate for themselves the risk return trade off for equity funds versus fixed deposits. It is important to note here that funds are essentially long term investments. For our analysis, we have assumed that the investment time horizon in mutual funds is 5 years. We will examine the returns given by mutual funds over 5 years versus fixed deposit returns, for the period from 2002 to 2013 which included both bull and bear market periods.

For our equity investment, we have taken an average large cap equity fund. For our fixed deposits, we have taken the average interest rates offered by different banks over the last 10 years. The point to note here is that the difference between the highest and lowest fixed deposit rate offered by different banks is not all that much, but the difference in the returns between top performing funds and the category average was easily 5 – 6%, if not more. But we have decided to stick with large cap category average, lest are we accused of equity bias. The chart below shows the average category returns for large cap funds since 2002.



Therefore as per the chart, above if an investor invested Rs 10,000 in an average large cap fund at the end of 2001 and redeemed his units after 5 years at the end of 2006, his investment would have grown to Rs 43,788. Similarly, if the investor invested Rs 10,000 in a large cap fund at the end of 2002 and redeemed his units after 5 years at the end of 2007, his investment would have grown to Rs 59,484. Long term capital gains in equity funds are tax exempt. Therefore the investor would not have to pay any tax on his returns. Now let us look at the average fixed deposit interest rates over the last 10 year period. The 1 to 3 year term rate is usually the highest fixed deposit rate. The rates for longer terms, e.g. 3 to 5 years and above are usually lower.



For the fixed deposit investment, we have assumed that the investor does a term deposit of 1 year (which usually has the highest interest rate) and renews it every year at the new rate. Since fixed deposit rates have been usually increasing year on year over this period, except a couple of years, this strategy would have worked best for the fixed deposit investor. If the investor invested Rs 10,000 in an FD at the end of 2001 and renewed it every year for 5 years, his principal and interest would amount to Rs 13,300 at the end of 2006. Fixed deposit interest is taxed as per the income tax slab rate of the investor. Assuming the investor is at the highest slab rate, the tax will be Rs 1,029. Therefore the post tax amount received by the investor would be Rs 12,301. Similarly, if the investor invested Rs 10,000 in an FD at the end of 2002 with annual renewal for 5 years, his post tax amount at the end of 2007 will be Rs 12,597.

As you can see, mutual fund returns beat fixed deposit interest by a wide margin in the bull market years. But what happened in the bear market years? The table below shows 5 year growth of Rs 10,000 investment, made at the end of various years from 2001 to 2008.



Year Invested	2001	2002	2003	2004	2005	2006	2007	2008
Amount Invested	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
Year Redeemed	2006	2007	2008	2009	2010	2011	2012	2013
Growth of Investment	43,788	59,424	16,477	24,895	21,266	11,618	9,819	21,262
Capital Gain / (Loss)	33,788	49,424	6,477	14,895	11,266	1,618	(181)	11,262

All investments made after 2003 (shaded in amber in the table above) had to go through bear markets of either 2008 or 2011 or both. Now, please take a look at the line "Capital Gain / (Loss). Investors with a five year horizon did not make a loss in the above example, except the investment made in the 2007 to 2012 time horizon. Even the investment made in the 2007 to 2012 time horizon, probably worst years of the financial crisis in the last 50 years, lost less than 2%, only Rs 181 loss on the Rs 10,000 investment. It is here, that we should revisit risk perception. There is no denying that equities are risky. But if you have a long time horizon, your investment can recover from the negative impact of a bear market and give you good returns. The table above shows that in the most of the periods the investors doubled their investment tax free despite the severe bear market.

Now let us look at Fixed Deposit post tax returns. The table below shows 5 year growth of Rs 10,000 investment, made at the end of various years from 2001 to 2008.

Year Invested	2001	2002	2003	2004	2005	2006	2007	2008
Amount Invested	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
Year Redeemed	2006	2007	2008	2009	2010	2011	2012	2013
Growth of Investment	12,301	12,597	12,938	13,043	13,265	13,312	13,359	13,419
Capital Gain / (Loss)	2,301	2,597	2,938	3,043	3,265	3,312	3,359	3,419

Let us compare the fixed deposit returns with the mutual fund returns. See the chart below, for the mutual fund returns versus fixed deposit returns over different 5 year time horizon over the last 10 years.



The chart above shows that while fixed deposits assure capital safety and guaranteed returns, mutual funds over a sufficiently long horizon have given much higher returns. Mutual fund returns are much higher in the 5 year time horizons starting 2002 to 2006. In the 2006 - 2011 and 2007 - 2012 time horizons, fixed deposits have given higher returns, no doubt as a result of the severe market

downturns in 2008 and 2011. Again starting 2009, mutual funds have started to give better returns. When evaluating risk return tradeoff between mutual funds and fixed deposits, investors should compare their returns over sufficiently long period comprising of both bull markets and bear markets, as discussed above. The investment horizon is also of vital importance in determining the risk return trade off. It suffices to say that, if the investment horizon in our example was short, say 1 to 2 years, mutual funds would have had more periods of underperformance.

CONCLUSION



Assets of class	Inflation	Return (approx)
Fixed Deposit	8.82%	8.50%
Gold	8.82%	10-12%
Share	8.82%	17%
Mutual Fund	8.82%	14-15%

After longing a 2 months summer training, I actually have come to understand concerning different aspects of investment firm and investment firm business. Bharat could be a rising market consumption level is rising with the rising financial gain. This study and survey on investment firms could be a tiny eye hole to check the image of mutual fund business in Bharat.

Awareness regarding open-end fund, sip set up and its services. As open-end fund having smart choice schemes, therefore we have a tendency to grow it with making awareness among people and it's additionally smart for people who wish to create their future in it. For that the sole factor you would like provide time to your cash to grow, they will for sure provide smart returns. The trade wills aware additional investors to take a position in open-end fund they'll do these through seminars, advertisements, etc. they'll additionally increase their sales with collaborating with several banks.

An open-end fund may be a pool of cash from several investors that's accustomed to invest in one portfolio of securities for the good thing about all the investors within the fund open-end fund investors purchase shares within the open-end fund every share represents a chunk of each investment created by the money managers that supervise the open-end fund, though mutual funds enable you to take a position in several sectors of the economy in right away.

Decisions

Since mutual funds are professionally managed, you are doing not have any management in however the cash within the investment firm is invested with cash managers are to blame for researching and decoding information associated with the investments that conjure the investment firm. As a result, you've got no manner of influencing what investments are bought and sold-out by the cash manager.

Cost

The returns you generate by finance during a investment company square measure restricted partially by the price of maintaining the investment company consistent with the U.S. Securities and Exchange Commission, a investment company is analogous to a business. The investment company incurs prices to shop for and sell investments on the open money market place, a number of these fees could embody advising fees, dealings prices, and costs for selling and distribution. These fees cut back the returns you create from the investments in your investment company.

Projection

A prospectus for a open-end fund is one in all the foremost common sources of knowledge for investors. A key thought once you examine a prospectus is that projections of future earnings area unit solely estimate of however the open-end fund might perform within the future. Projections area unit ordinarily supported past performance, however there's no guarantee that a open-end fund can generate identical level of returns as past years.



Assurance

The money you invest during an open-end fund isn't insured by the Federal Deposit Insurance Corporation. If your bank participates in corporation insurance, your deposits are repaid to you if your bank fails, however the money you invest in mutual funds isn't protected against investment losses or bank closure.

Threat

Mutual funds are exposed to risk like several alternative investments within the money markets. Mutual funds and} minimize risk by finance in an assortment of securities like stocks and short- and semi permanent bonds. This strategy is usually referred to as diversification, and it protects you from losses in one space of the portfolio with gains in another. Whereas mutual funds invest in many sectors, some concentrate on bond investments like securities industry funds, bond funds and stock funds that carry extra risk of loss.

Positive result, most frequently, in a herd of funds buying a stock, while negative result, most frequently, in a funds selling. These findings suggest that people are having less knowledge about mutual fund as compared to other investment avenues. Finally, it found that the selling of funds with greater career concerns (i.e., funds with poor past performance) plays a greater role because people think that particular fund is much better than the new one.

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IMPACT OF COVID-19 ON INDIAN ECONOMY

Smt. Sunanda Shankar

Asst. Professor of Economics

Government First Grade College Basavakalyan, Dist:Bidar, Karnataka

Dr. Shankar T. Battase

Assistant Professor and Head

Department of Commerce and Management

Government First Grade College Sindagi, Dist:Vijayapur, Karnataka

Abstract

The outbreak of the Covid-19 pandemic is an unprecedented shock to the Indian economy. The economic impact of the 2020 coronavirus pandemic in India has been largely disruptive. India's growth in the fourth quarter of the fiscal year 2020 went down to 3.1% according to the Ministry of Statistics. The Chief Economic Adviser to the Government of India said that this drop is mainly due to the coronavirus pandemic effect on the Indian economy. Notably India had also been witnessing a pre-pandemic slowdown, and according to the World Bank, the current pandemic has "magnified pre-existing risks to India's economic outlook". The Government of India has announced a variety of measures to tackle the situation, from food security and extra funds for healthcare, to sector related incentives and tax deadline extensions. With the prolonged country-wide lockdown, global economic downturn and associated disruption of demand and supply chains, the economy is likely to face a protracted period of slowdown. This study revealed the potential impact of the shock on various sectors like manufacturing, financial services, banking, infrastructure, real estate, and services and put forward a set of policy recommendations for specific sectors.

Key Words: Indian Economy, Economic Downturn, Corona Pandemic, Employment,

Introduction:

Besides the impact on human lives and global supply chain, the pandemic is a severe demand shock which has offset the green shoots of recovery of the Indian economy that were visible towards the end of 2019 and early 2020. The International Monetary Fund (IMF) has projected the Indian economy to grow at 1.9% in 2020-21. Nearly 162 countries are steadily going into lockdown, and businesses across the globe are operating in fear of an impending collapse of global financial markets. This situation, clubbed with sluggish economic growth in the previous year, especially in a developing country like India, is leading to extremely volatile market conditions. Challenges are impacting all the three major contributors to GDP- private consumption, investment and external trade.

The high impact sectors in terms of risk on account of Covid-19 are aviation, hotels, restaurants, retail, shipping, ports and port services. The medium impact sectors are automobiles, building materials, residential real estates while the low impact



sectors include education, dairy products, fertilizers, FMCG and healthcare among others.

According to the survey, COVID-19 is having a 'deep impact' on Indian businesses, over the coming month's jobs are at high risk because firms are looking for some reduction in manpower. Further, it is added that already COVID-19 crisis has caused an unprecedented collapse in economic activities over the last few weeks.

The effect of Corona virus is badly felt and noticed in the world's most developed countries like USA, Britain and Germany etc. Obviously, India was bound to be affected not only because of its domestic slowdown but also because of international recession. Learning the lessons from the developed countries like Spain and Italy, India put all its machinery and material into motion to curb and/or prevent the disease.

Objectives:

The major objectives of this study are:

- ❖ To understand impact of Covid-19 on overall Indian Economy
- ❖ To understand impact of Covid-19 on different sectors
- ❖ To find out the challenges for different sectors in Indian economy

Research Methodology:

In this study the data used for the study is secondary in nature and has been collected from survey reports & study reports by various agencies like CRISIL, FICCI, PwC, ASSOCHAM, CII, McKinsey & Company and CARE Ratings for detail study. I have chosen the reports mostly published in March and April months to understand the impact of COVID-19 on Indian economy and various sectors. Also, I have studied few research papers and News articles which publish in these two months.

Impact of Covid-19 on different sectors in Indian economy:

In India up to 53% of businesses have specified a certain amount of impact of shutdowns caused due to COVID-19 on operations, as per a FICCI survey in March. By 24 April the unemployment rate had increased nearly 19% within a month, reaching 26% unemployment across India, according to the 'Centre for Monitoring Indian Economy'. Around 140,000,000 (14 crores) Indians lost employment during the lockdown. More than 45% households across the nation reported an income drop as compared to the previous year. Various business such as hotels and airlines cut salaries and laid off employees. Revenue of transport companies such as Ola Cabs went down nearly 95% in March-April resulting in 1400 layoffs. It was estimated that the loss to the tourism industry will be ₹15,000 crore (US\$2.1 billion) for March and April alone. CII, ASSOCHAM and FAITH estimate that a huge chunk of the workforce involved with tourism in the country faces unemployment. Live events industry saw an estimated loss of ₹3,000 crore (US\$420 million).

A number of young startups have been impacted as funding has fallen. A DataLabs report shows a 45% decrease in the total growth-stage funding (Series A round) as



compared to Q4 2019. According to a KPMG report venture capital in Indian startups has fallen over 50% in Q1 2020 from Q4 2019.

Government revenue has been severely affected with tax collection going down, and as a result the government has been trying to find ways of reducing its own costs. On 10 May 2020, Union Minister Nitin Gadkari said that some states didn't have enough money to pay salaries in the near future. In April, former Reserve Bank of India chief Raghuram Rajan said that the coronavirus pandemic in India may just be the "greatest emergency since Independence", while the former Chief Economic Advisor to the Government of India said in April that India should prepare for a negative growth rate in FY21.

The Indian economy was expected to lose over ₹32,000 crore (US\$4.5 billion) every day during the first 21 days of the lockdown, according to Acuité Ratings. Barclays said the cost of the first 21 days of shutdown as well as the previous two shorter ones will total to around ₹8.5 lakh crore (US\$120 billion). Confederation of Indian Industry (CII) had sought an economic fiscal stimulus package of 1% of India's GDP amounting to ₹2 lakh crore (US\$28 billion). The fiscal package and fiscal policies approach is being compared to what has happened in other countries such as Germany, Brazil and Japan. Jefferies Group said that the government can spend ₹1.3 lakh crore (US\$18 billion) to fight the impact of coronavirus. Bloomberg's economists say at least ₹2.15 lakh crore (US\$30 billion) needs to be spent. Former CEA Arvind Subramanian said that India would need a ₹10 trillion (US\$140 billion) stimulus to overcome the contraction.

Impact of Covid-19 on Pharmaceuticals Sector: Bulk drugs and drug intermediates accounted for \$1.5bn or 3% of India's imports from China. As per Trade Promotion Council of India, the country imports around 85 percent of its total requirement of active pharmaceutical ingredients (APIs) from China. These active pharmaceutical ingredients are essential to a large number of pharmaceutical manufacturing companies in the country. Dependencies on China have impacted manufacturing operations in India. However, demand for essential medicines and safety equipment has gone up. Government has restricted the export of certain medicines and pharma products and is monitoring the overall inventory on regular basis.

As COVID-19 is rapidly making its way through India, medication is going to be the number one consumer demand, and because there aren't nearly enough APIs to manufacture drugs, the subsequent traders and the market are witnessing skyrocketing prices.

Impact of Covid-19 on Raw materials and spare parts: Nearly 55% of electronics imported by India originate from China. These imports have already slid down to 40% in light of the coronavirus outbreak and subsequent lockdown. As a countermeasure, India is considering the promotion of indigenous production in a bid to reduce dependency on a single market. Additionally, China is India's third largest export partner for export of raw materials like organic chemicals, mineral fuels, cotton, etc.; and lockdown of the countries is likely to lead to a substantial trade deficit for India.



Impact of Covid-19 on Tourism Sector:India is huge on cultural and historical tourism, attracting domestic and foreign nationals throughout the year. It does not come as a surprise that a large number of confirmed COVID-19 cases in India include foreign tourists. But with visas being suspended and tourist attractions being shut indefinitely, the whole tourism value chain, which includes hotels, restaurants, attractions, agents, and operators are expected to face losses worth thousands of crores. The World Travel and Tourism Council (WTTC) estimates the crisis to cost the tourism sector at least USD 22 billion, the travel sector shrinking by up to 25% in 2020, resulting in a loss of 50 million jobs. Experts believe the tourism industry is likely to take a massive hit, and it could end up crippling the industry for the foreseeable future.

Impact of Covid-19 on Aviation Sector:After the Government of India indefinitely suspended tourist visas, airlines are said to be working under pressure. Nearly 600 international flights to and from India were cancelled for varying periods. Around 90 domestic flights have been cancelled, leading to a sharp drop in airline fares, even on popular local routes. Private airport operators have requested the Government to grant permission to impose a nominal passenger facilitation charge on airfares to cover the increased operating cost.

Impact of Covid-19 on FMCG Sector:After the lockdown announcement, demand for essential FMCG products spiked up owing to hoarding and panic buying by consumers. Grocery items, milk, and hygiene products have seen a surge in demand while supply chain constraints have limited the manufacturing capacities.

Impact of Covid-19 on MSMEs:Micro, small and medium enterprises (MSME) exporters have been impacted more by the current lockdown on account of Covid-19 pandemic as the sector accounts for over 45 per cent in the country's total outbound shipments. They will also face issues in calling back their workers as several of them have migrated to their villages and towns. However, incentives will help exporters to resume work immediately after things start getting normal, otherwise they will not be able to restore their global suppliers.

Impact of Covid-19 on Energy:Night lights and economic activity are connected. In Delhi, night light radiance fell 37.2% compared to 1–31 March 2019. This was the biggest fall for any metro in India. Bangalore fell 32% while Mumbai dropped by 29%. India's fuel demand in April 2020 as compared to the previous year fell nearly 46%. Consumption of fuel was the lowest since 2007.

Cooking gas (LPG) sales rose ~12%. An International Energy Agency report in April estimated India's annual fuel consumption will decline 5.6% in 2020.

Diesel demand will drop ~6%. By the first half of June 2020, India's fuel demand was 80-85% of what it was before the lockdown. However the Indian oil minister said that it would take a much longer time for the growth in demand to be restored to pre-covid levels.



Oil prices dropped sharply in 2020 following the COVID-19 pandemic. Demand also fell sharply. By mid-May India had already filled its strategic storage including storing oil on ships across the world. India is now looking at storing oil in other nations including America. India also plans to increase its local strategic storage capacity for oil.

Impact of Covid-19 on Agriculture: A study during the first two weeks of May by the Public Health Foundation of India, Harvard T H Chan School of Public Health and the Centre for Sustainable Agriculture found that "10% of farmers could not harvest their crop in the past month and 60% of those who did harvest reported a yield loss" and that a majority of farmers are facing difficulty for the next season. Due to logistical problems following the lockdown tea estates were unable to harvest the first flush. The impact of this on the second flush is not known. The entire Darjeeling tea based tea industry will see significant fall in revenue. Tea exports could see a yearly drop up to 8% as a result. In March 2020, tea exports from India fell 33% in March as compared to March 2019. During the lockdown, food wastage increased due to affected supply chains, affecting small farmers.

From 20 April, under new lockdown guidelines to reopen the economy and relax the lockdown, agricultural businesses such as dairy, tea, coffee, and rubber plantations, as well as associated shops and industries, reopened. By the end of April, ₹17,986 crore (US\$2.5 billion) had been transferred to farmers under the PM-KISAN scheme. Odisha passed new laws promoting contract farming.

Impact of Covid-19 on Manufacturing: Major companies in India such as Larsen and Toubro, Bharat Forge, UltraTech Cement, Grasim Industries, the fashion and retail wing of Aditya Birla Group, Tata Motors and Thermax temporarily suspended or significantly reduced operations in a number of manufacturing facilities and factories across the country. iPhone producing companies in India also suspended a majority of operations. Nearly all two-wheeler and four-wheeler companies put a stop to production till further notice. Many companies have decided to remain closed till at least 31 March such as Cummins which has temporarily shut its offices across Maharashtra. Hindustan Unilever, ITC and Dabur India shut manufacturing facilities except for factories producing essentials. Foxconn and Wistron Corp, iPhone producers, suspended production following the 21 day lockdown orders.

Impact of Covid-19 on Stock markets: On 23 March 2020, stock markets in India post worst losses in history. SENSEX fell 4000 points (13.15%) and NSE NIFTY fell 1150 points (12.98%). However, on 25 March, one day after a complete 21-day lock-down was announced by the Prime Minister, SENSEX posted its biggest gains in 11 years, adding a value of ₹4.7 lakh crore (US\$66 billion) crore for investors. On 8 April, following positive indication from the Wall Street that the pandemic may have reached its peak in the US, the stock markets in India rose steeply once again. By 29 April, Nifty held the 9500 mark.



Impact of COVID-19 on National Stock Exchange of India NIFTY 50 (1 Jan 2020 to 19 May 2020). "The NIFTY 50 is NSE's benchmark broad based stock market index for the Indian equity market."



Indices: S&P BSE 500 (Period Jan - 2015 to May - 2020). Open, High, Low, Close visible. Fall depicted in black. Rise depicted in white.

Impact of Covid-19 onE-commerce:In the third week of March, Amazon announced that it would stop sale of non-essential items in India so that it could focus on essential needs. Amazon followed the same strategy in Italy and France. On 25 March, Walmartowned Flipkart temporarily suspended some of its services on its e-commerce platform and would only be selling and distributing essentials. BigBasket and Grofers also ran restricted services, facing disruptions due to the lockdown. Delhi Police began issuing delivery agents curfew passes to make it easier for them to keep the supply chain open. E-commerce companies also sought legal clarity related to defining "essentials".

Impact of Covid-19 onDefence: The Department of Military Affairs led by the Chief of Defence Staff postponed all capital acquisitions until the coronavirus pandemic recedes.



No new major defense deals would be made in the beginning of the financial year 2020–21. While the delivery of S-400 missile systems won't be affected, the delivery of Rafale fighter jets was reported to maybe being affected. However on 24 March, France confirmed that there will be no delay in the delivery of the 36 Rafale jets.

Impact of Covid-19 on State income and expenditure: State governments incurred huge losses to the extent of having to cut capital expenses as well as government plans in the near future and finding alternate ways to pay salaries. The Delhi government has fallen 90% short in tax collection as compared to 2019 and is planning to take loans and raise taxes in certain sectors. Maharashtra put a hold on all new capital works till March next year; spending under government development schemes has been reduced by 67% for the current fiscal. The income of the Madhya Pradesh government has fallen by 85% in April and borrowing has increased.

The Delhi government as well as the Andhra Pradesh government imposed a 70%-75% "corona" extra tax on liquor. Excise duty on liquor is the third largest source of income for a number of states, nearly 10-15% of total tax collection for some states. The ban during the lockdown affected alcohol sales, in turn having a major effect on the state revenue.

CONCLUSION:

The impact of COVID-19 on customers is profound and the full impact on the economy is still unknown. While B2C and B2B organizations scramble to meet immediate and emergency needs, the pandemic has activated a new wave of commerce innovation. Above all, except for essential services like electricity, gas, water supply and part of 3B, C and D relating to broadcasting, financial services (banking) and, public administration, defence, etc., all other sectors have been completely shut. The impact on agriculture, which is seasonal in nature, cannot be ascertained exactly. This Corona Virus pandemic may wreck the Indian economy. The level of GDP may further fall, more so when India is not immune to the global recession. Infact, it is believed that India is more vulnerable, since its economy has already been ailing and in a deep-seated slowdown for several quarters, much before the COVID-19 outbreak became known. The Prime Minister of India has already spoken of setting up an Economic Task Force to devise policy measures to tackle the economic challenges arising from COVID 19, as also on the stability of Indian economy. However, the concrete plans would have to be kept in place to support the economy and its recovery.

As the disruption from the virus progresses globally as well as within India, it is for us to forget, atleast for the time being, all talking only about economic recovery, and instead join hands whole heartedly to tackle the outcome of COVID-19.

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A Systematic Review on Candidate Selection Process by Resume Sorting and Facial Emotion Recognition

Shetty Ashika Chandrashekar ^[1]
UG Student

Dept. of Information Science & Engineering,
Alva's Institute of Engineering & Technology,
Moodbidri, India
ashiti2011shetty@gmail.com

Tanaz Jamal Shaikh ^[2]
UG Student

Dept. of Information Science & Engineering,
Alva's Institute of Engineering & Technology,
Moodbidri, India
tanazshaikh97@gmail.com

Gagana G R ^[3]
UG Student

Dept. of Information Science & Engineering,
Alva's Institute of Engineering & Technology,
Moodbidri, India
gaganagarnavaka98@gmail.com

Nagesh U B ^[2]
Assistant Professor

Dept. of Information Science & Engineering,
Alva's Institute of Engineering & Technology,
Moodbidri, India
nageshnb@gmail.com

Manohar Masthi Gowda Y K ^[4]
UG Student

Dept. of Information Science & Engineering,
Alva's Institute of Engineering & Technology,
Moodbidri, India
manohargowda3737@gmail.com

Abstract— After completing education the next phase that comes in a person's life is job. However, there are lots of people who start working before completing their formal education. While looking for a job the most significant thing that speaks about a candidate is Curriculum Vitae (CV) or Resume. In this period of innovation, job searching has become progressively easier and simpler simultaneously. There are a large number of applicants pouncing for a single position and hence it becomes extremely difficult for the employer to decide just dependent on their CV/Resume. To take care of this issue, there are organizations who give explicit configuration to their candidates with the goal that they can make this procedure somewhat simpler. The way toward choosing an applicant dependent on their CV/Resume has not been totally robotized. To solve this problem, an approach combined with Natural Language Processing (NLP) and Machine Learning (ML) seems like a feasible opportunity. Research shows that, 90% of all CVs/ Resumes are checked for less than 2 minutes by the employers. This implies that, in most of the cases the employers only look at the bits of important parts or the points of interest in the CV/ Resumes and ignores the rest. The specific segmentation scheme of a general CV/ Resume makes it far easier to analyze and understand the necessary information. Therefore, the first objective was to segment the CV/ Resume into parts and then separate them in order to figure out the topics of each sentence through analyzing the keywords of each segment. After resume sorting of the curriculum vitae(cv) we go for the facial

recognition of the candidates to analyze the situation of the candidates during interview by using machine learning algorithms. Facial expressions play a key job in analyzing and distinguishing emotions.

Keywords— Natural language processing, Machine learning;

I. INTRODUCTION

The entire process of resume sorting is separated into three segments. The initial segment contains the segment of entire CV based on each part, the second part contains extracting data in structured form, from the unstructured data and the third segment contains evaluating the structured data by decision tree algorithm. All segmented resumes are converted into HTML format by data extraction process. Decision tree algorithm technique are used to classify input into different categories based on the qualification and quality of data for future benefits. The next step being facial emotion recognition is very active re-search topic in order to detect the emotion from face which has used frontal view images. The fragmentation of facial area and other body parts is done on the basis of skin shading model. To recognize the eye and lip area from face we utilized Viola-Jones algorithm. By the help of neural network, we can identify the emotion of those features. Human emotion displayed by face captures in video. Artificial intelligence system can copy and measure the reaction from face. Perceiving feeling from picture or video task is extremely complex for machine and furthermore it requires many image processing methods for extraction. This paper examines about the machine learning technique and feature extraction.



II. RELATED WORK

A CV/Resume plays an important role in a job interview. While in CV / Resume data formats that are used is not completely unstructured, it is still quite challenging to take them into structured format as there is no set-in stone rule for writing a CV/ Resume. As there are many possible ways of representing qualifications in a CV/ Resume has been established so far such as chronological CV/ Resume and functional CV/ Resume [20]. Previously, CVs/Resumes put together by work searchers used to be physically examined and decided upon by the organizations [22]. This strategy is still followed in the recent times. The innovation in the field of Natural Language Processing [21] along with Machine Learning [10] has been really helpful in this case. The ability to understand unstructured written language and extract important information from it to teach the machine is exactly what is needed to analyze any written documents such as resume papers just like human being. Along with Natural Language Processing, researchers also used Machine Learning to make their models more accurate and correct. Since, there are various techniques of Machine Learning, therefore, there are various approaches to train a model and solve problems. Logistic regression [11], naive Bayes classifier [23], Decision trees [12] are very commonly used machine learning based techniques that are used to determine whether some is right or wrong, good or bad. Moreover, there are different types of decision tree algorithms that exist such as ID3 algorithm [13] and the C4.5 algorithm [19] which is the successor of ID3 algorithm. Various research ventures have been done on perceiving emotion from face. The process of analysis of human facial expressions is supported by a framework called FACS-facial activity coding system. Various instant changes in the facial appearances helps the FACS in encoding the movements caused in individual muscles of the face. A systematic categorization of emotions in physical expressions is done using this as a standard. Facial feature extraction is a combined process of detecting faces from video and geometrical feature extraction. This is followed by production of temporal profiles of various movements in the facial region. FACS is the major computed and automated system which performs the above activities. Apart from FACS, there is another promising system known as Aw-SpPCA algorithm utilized to identify emotion from a facial expression. Impound illumination conditions, variations in facial expressions are some of the key concepts behind the working of this algorithm. Further the images are segmented into sub-images followed by application of PCA algorithm. Neural Networks is another key apparatus of separating feature from a image. Facial recognition utilizes another factual model called Hidden Markov Model.

III. PROPOSED WORK

There are two main phases. The first phase being analyzing of CV/Resume and second phase is facial emotion recognition of a candidate during an interview. The results of both the phases can be combined and used as a guiding tool by the hirers to see whether the applicant is suitable for the job or not. Most normally CVs/Resumes given by candidates used to be physically investigated and decided by the hirers. Large organizations regularly need to manage several CVs/Resumes every day, and it has become problematic and tedious to deal with such a major number of CVs/Resumes individually. Therefore, many companies started to provide specific formats or forms where the job applicants need to fill up with required information following which the CV/Resume will be examined by machine with simple pattern identification and keywords searching. Even though this method reduced workload over the hirers but it significantly increased work of the applicants as they have to carry on different layout for each job application and also reduces the flexibility and creativity in a resume. The innovation in the field of Natural Language Processing combined with Machine Learning has been really helpful in this case. The ability to understand unstructured written language and extract important information from it to teach the machine is exactly what is needed to analyze any written documents such as resume papers. Logistic regression, naive Bayes classifier, Decision trees are commonly used machine learning based techniques that are used for the purpose. As we are trying to make a decision system that is capable of deciding whether a CV/resume is suitable or not the concept of decision trees is also being used. For this research a decision tree algorithm – ID3 algorithm is used. In most of the case, CVs/Resumes are usually in two formats: PDF and DOCX. There are libraries in python that can read both the file formats very easily. There is a library in python called PDFminer that can read PDF files and another library called urllib that can convert PDF files to HTML. There is also functionality in a library called beautiful soup that can pull data out of HTML and XML files. It can reverse engineer the HTML file to HTML code [24]. Once CV/Resume sorting is done the next phase is facial emotion recognition of a job applicant. The capacity for people to elucidate feelings is critical for successful communication representing up to 93% of communication utilized in a typical discussion relies upon emotion of an entity. Here we have used facial image of the job applicant as a medium to read human emotion. There are seven essential emotions that are widespread to people. Some of the fundamental feelings such as happy, surprise, disgust, fear, anger, neutral, surprise etc. can be specifically perceived from expressions of the face. An individual's gesticulation or even speech is sufficient to dictate their emotion. Feature identification and face detection are based on the principle

color models. The color model consists of a concrete color space. A few among them are RGB, CMY, YIQ, HSV, and HSL. We mainly concentrate on HSV color model whose main idea behind development was to develop the RGB color model as a highly intuitive one. The abbreviation of HSV is hue, saturation and value. Its major applications are concerned with development of software's for image modification and analysis.

A. PROPOSED METHODOLOGY

I. RESUME ANALYSING

The proposed methodology has the first part of CV/Resume sorting. The block diagram of the CV/Resume sorting process is as below.

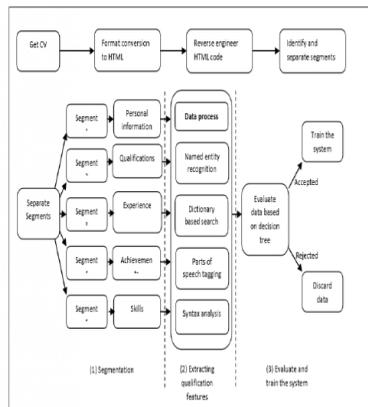


Figure 1.1 Block diagram of resume sorting system.

Figure 1.1 depicts the block diagram of resume sorting system. Once the resumes are collected, they are converted into HTML format and separate segments are identified. The font information of a CV/Resume plays an important role in CV segmentation.

II. SEGMENTATION

Except some specific cases most of the CV's are written in semi-structured form. In general, a CV structure starts with a heading, a bolded headline, a headline with bigger font than the other texts or something along the line with that. when a

text is read by computer, it is read as a plain text and in the process, it misses a huge amount of information. On the other hand segmenting based on line breaks does not work here either because segments with bullet points may carry a lot of extra line breaks in the same segment. If the font information is preserved, it can be really helpful in segmentation. After segmentation the required qualification features are extracted using various process such as dictionary based search, syntax analysis etc. The extracted data is evaluated based on the decision tree. If the data is accepted the system is trained for the extracted data else the data is discarded. The font information can be kept by converting the CV / Resume format to HTML and the reverse engineer the HTML files to HTML code. An HTML code carries information like if a text is bold or not, or the font is bigger or not etc.

III. QUALIFICATION FEATURE EXTRACTION

When a CV/Resume is divided, separating the relevant data gets simpler since it can be worked based on the specific topic that each of the segments has. One segment may contain personal information, another segment may carry information related to career and some other segment may describe experience and so on. identifying information with tangible value such as CGPA, grade or years of experience is relatively easy and can mostly be done with simple pattern recognition in python or any other language. However, extraction of more complex data will require multinomial logistic regression model.

IV. TRAINING THE SYSTEM

Once a CV / Resume is analyzed and weighted into values, there will a total mark given to a CV / Resume and it will be graded based on how much qualification the candidate has. Just like any other machine learning based model, the success rate of the system will depend on the amount of pre-existing data the machine has which can be used to compare and evaluate new information. As a result, when a CV / Resume is weighted positively, if the CV / Resume carries any new information or something that can enrich the existing information even more, the system will learn it and expand the scope of the training data so that it can be used for future purpose.

ALGORITHM

- Segmentation (File pdf, List heading_tree)
1. Read pdf file
 2. Convert file to HTML
 3. If fail, return error



4. Else, turn the file into HTML code
5. Remove fillers and read all types of font sizes from code
6. Average = summation of font sizes / number of different font size
7. Initialize heading candidate queue, load and read first line of text
8. If font size of line is greater than average
9. Push into heading candidate queue and move to next line
10. If next line! = null, read line else go to 11
11. If candidate queue is empty, go to line 18
12. Candidate <= candidate queue.pop()
13. Parse the sentence through heading parser
14. If parsing successful, make a segment of text till the next heading
15. Determine segment topic
16. Segment queue <= push segment
17. Go back to 11
18. return segment queue

Based on the algorithm the whole system will rank the candidates according to the requirement given by the employer. Then based on the limitations and constraints the system will provide top candidates for the next phase of the recruitment process.

SYNTAX ANALYSIS

Before performing syntax analysis on the text, it is needed to do some pre-analysis such as how many segments will be looking for in general cases and what information are present in those segments. Generally, the segments in a CV/ Resume are personal information, academic qualification, working experience and skills, extracurricular activities, awards and field related achievements. In order to perform syntax analysis, it is needed to collect some sample headings from which an initial syntax tree is created and the syntax analysis will be performed based on that syntax tree. The analysis is done on the lines in an order from higher font to lower font, with a hope that most of the headings exist in the lines with bigger font so it's possible to get all the headings by performing syntax analysis on only a little portion of all the lines. After performing analysis on around 50 CVs / Resumes, a common pattern was discovered. In a large number of CVs/ Resumes, the line with the largest font represents the name of the CV/ Resume owner. There is a font smaller than the largest one that usually represents the font of the headings. However, this is not entirely consistent as there are also the font size of the sub headings that gets included here if exists. The font size below it represents the general text of CVs/ Resumes and this font size is presented in the largest number. In the CV/ Resume converted into HTML, all the desired headings were found after performing syntax analysis for only 8 times. When all the headings are found, segmenting is a

very easy job in a general CV/ Resume. All it is needed is to gather texts from one heading to the next heading and a segment is found.

EXTRACTING INFORMATION

After the part of proper segmentation, extracting information from the segments becomes much easier. If it is already known that, what segments are actually searching in, an idea can be developed about what should be searched for in each segment. For example, it will be looked for contact number, emails in the personal profile section, CGPA and degrees along with the institution name etc. in the academic career section and so on. Extracting some of the information is relatively easy and can be done by simple linear pattern matching. To extract the name of the CV / Resume owner the named entity recognition of the NLTK library of python can be used. In this case, it will be started using it from the bigger font sizes to the smaller font sizes because as said earlier, most of the time the biggest font in the CV consists of the name of the CV owner. In addition to that, if there are any contact number or email address in the personal profile section, it can be easily extracted from these by performing simple pattern matching techniques. Email matcher pattern: [A-Za-z0-9]@[gmail | yahoo| hotmail]and the mobile number matcher pattern: 01[5|6|7|8][0-9]{8}. Additionally, extracting the age, marital status, physical properties (if needed) of the CV owner is also a simplistic job. Most of the time these values will be around some specific words. It can be expected that, the word 'age' or the words 'years old' around the numerical value of the attribute. The more difficult thing is however, extracting the information that is not very clear to extract or may take some ambiguous form. For example, extracting the name of the institutions. In order to extract this information, syntax analysis was performed and it was looked for some specific sentence structure. For example, if it is assumed that the institution name will be in some sentence structured as 'studied at <university name>' or 'completed <program name> from <university name>'. From this structure, it can be inferred that: <degree name > in <program name> from < institution name>. This is how data can be taken in some structured form, after taking into structured form, the data can be evaluated more easily. After looking for sentence patterns and searching for keywords, some useful information will be received and that information is taken into JSON format [6].

EVALUATING DATA

When the data extraction in structured format is done, now it is time to justify the data to actually evaluate the CV/ Resume. Decision tree learning algorithm ID3[13] will be used to justify a CV/ Resume. Before using ID3 algorithm, the

algorithm is trained with dataset from multiple CVs/ Resumes. From the dataset a sample decision table was made. Here's what a sample CV/ Resume evaluation table looks like the following:

CGPA*Vrality Weight	Project weight	Achievement weight	Skills weight	Acceptance
>3.7	Medium	High	Medium	Yes
>3.3 & <3.7	Low	Low	Low	No
<3.3	High	High	High	Yes
>3.7	Low	Low	Low	Yes
<3.3	High	Medium	Medium	No
>3.3 & <3.7	High	High	High	Yes
>3.7	Low	High	Medium	Yes
<3.3	Low	Low	Medium	No
<3.3	Low	Medium	Low	No
>3.3 & <3.7	Medium	Medium	High	No
>3.3 & <3.7	Low	Medium	Medium	No
<3.3	Low	Low	Low	No
>3.7	High	High	High	Yes
>3.3 & <3.7	High	Medium	Low	Yes
>3.3 & <3.7	High	High	Low	Yes

Figure 1.2 Resume evaluation table

After table construction, the entropy is calculated and the maximum information gain is also calculated from it. If there are n number of class values, the formula for calculating the entropy is $I(P) = -(p1 * \log_2(p1) + p2 * \log_2(p2) + \dots + pn * \log_2(pn))$. After calculating entropy, the value of information gain is calculated, the formula for calculating information gain is, $IG = 1 - I(P)$. For example, if CGPA vs Skills is taken and I(P) of it is calculated for the class values of yes and no, the following equation is formed, $I(PCGPA) = (3/9)(0) + (3/9)(-(1/3)\log_2(1/3) - (2/3)\log_2(2/3)) = .605$. So, information gain is $IGCGPA = 1 - .605 = .395$. $I(Pskills) = (4/9)(-(1/2)\log_2(1/2) - (1/2)\log_2(1/2)) + (3/9)(-(1/3)\log_2(1/3) - (2/3)\log_2(2/3)) = .918$. The information gain, $IGskills = 1 - .918 = .082$. As it can be evaluated that, the information gain from the CGPA attribute is .605 which is much higher than the information gain from skills attribute which is .082. From this result, it can be inferred that the CGPA attribute should get a higher priority in our tree than the skills attribute. Now, after running this on all the attributes that has been used to evaluate a CV and then the following tree can be represented as follows.

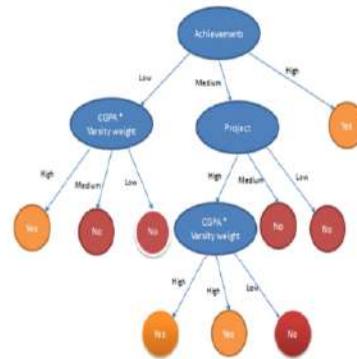


Figure 1.3 ID3 induced decision tree

As it can be seen that, the tree is much smaller than it would be in the original case. From the tree it can be inferred that the skill attribute is not even needed in order to evaluate according to the given criteria. The smaller decision tree helps the ID3 algorithm as the algorithm is good for smaller sized trees. Finally, a positive result is calculated as final evaluation. This result proves that, this candidate can attend for an interview or can perform the next step.

FACIAL EMOTION RECOGNITION

A static methodology utilizing extracted highlights and emotion recognition through machine learning. The attention is on utilizing machine learning algorithms to support the predictions about feature extraction. These predictions are done with the help of image processing libraries available in python. The process execution is segmented further. The dlib library plays a major role in this execution. Face detection and image pre processing are supported by inbuilt methods of dlib library. This is followed by selection of interested and important facial regions and features which can be used for emotion detection. Eyes, mouth, eyebrows and facial points around these parts are our main region of focus. Emotion detection is also supported by SVM which is a universal algorithm for categorization of emotion.

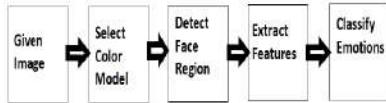


Figure 2 Block Diagram for facial emotion detection

The Figure 2 depicts workflow of a well-organized system that has the capacity of analyzing a facial image and discovering its emotion. Initially for a selected image an appropriate color model is selected which here is HSV color model. The actual image is converted into HSV image and is used to discover the facial region. In this process, the required portion of the facial image will be provided through detection of HSV value of the greater of the human face.

FACE FEATURE EXTRACTION

Movements and distortion in facial features can be used a basis to categorize the various face feature algorithms that are available. In our case we have made an attempt to find a system that can detect emotions by accurately extracting facial features. Viola Jones algorithm is best suited for the system which can detect emotion from extracted features. An appearance-based model such as Haar Cascades is said to assist the Viola Jones object detection algorithm. It is well known for providing fierce and real time object detection rates.

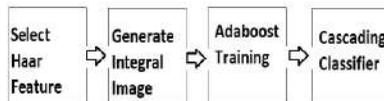


Figure 2.1 Workflow of voila jones method

The Voila Jones method detects entities in images by combining four key ideas:

- Haar features – elementary rectangular properties
- An Integral Image for quick feature detection
- The AdaBoost machine-learning technique
- A cascaded classifier to integrate several features systematically

The features present in Viola and Jones algorithm use as a basis the Haar wavelets [4]. Haar wavelets are single wavelength square waves. In two dimensions, a square wave is a pair of adjacent rectangles - one light and one dark. The

simple rectangular features of an image are calculated using an intermediate representation of an image, called the integral image. The integral image is an array containing the sums of the pixels' intensity values located directly to the left of a pixel and directly above the pixel at location (x, y) inclusive. In order to find the average pixel value in the rectangle, we need to segment the value at (x, y) by the rectangle's area. Now a threshold extent must be set and specific Haar features must be selected which is done through Adaboost. It is a machine learning technique which brings together several weak classifiers and produces a single strong one. A weak one is a combined set of classifiers for which weights are allocated. This weighted combination is referred as a strong classifier.

EMOTION DETECTION FROM EXTRACTED FEATURE

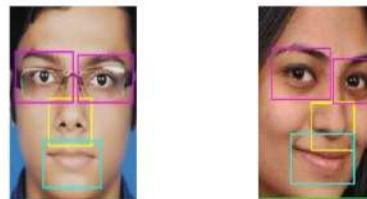


Figure 2.2 Facial feature detection

Emotions of human faces are identified by interpreting the extracted features. Pattern recognition can be used as a solution along with neural networks for analyzing emotion from facial points. A composite system may be divided into easy and minute sub systems, in order to acknowledge it. This is referred to as the divide and conquer technique. There are numerous different types of networks, but they all are characterized by the succeeding components: a group of nodes, and connections between nodes. Nodes can be viewed as computational units. They collect inputs, and process them to acquire an output. The connections dictate the data flow between nodes. The information can flow either in a single direction or in multiple directions. The former is referred as unidirectional flow while the latter is bidirectional flow. The interconnected human neural system is more closely related to a type of network referred as Artificial Neural Network (ANN), which can recognize and gain understanding of common samples linking the input sets of data to their correlating target values. ANN comprise of an input layer whose neuron count is proportional to size of image provided

as input as each node represents a pixel of image. The neuron count of output layer remains conditional on the system type and producer. In our system we kept 4 output neurons which will bear a resemblance to emotions such as happy, neutral, sad and surprised.

TRAINING THE NETWORK

Minimized inaccuracy among actual and desired output can be obtained by regulation of each unit weight. The back-propagation algorithm is the most commonly used for understanding how increment or decrement in weight affects the error derivative (EW) of weights. The same is depicted in figure 3.

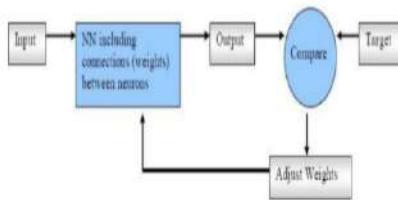


Figure 3 Training with backpropagation algorithm

IV. CONCLUSION

The proposed model of resume sorting extracts required data from a CV/Resume and segregates them depending on their values. The whole procedure was segmented and each segment was sketched separately to accomplish its task. A contrasting method of evaluating and analyzing the data in a CV/Resume is proposed in this paper and that was converting data into HTML code to understand different values. Finally, the model gives ranks to CVs/Resumes based on the necessary information and employers take the previous prerequisites into consideration. The implementation of facial emotion recognition can be roughly divided into three parts-face detection, feature extraction and emotion classification.

V. FUTURE WORK

Even though in the research one of the most feasible way to evaluate a CV/ Resume was detailed, resumes with some varied layout design is out of the scope of this paper. For the future scope of this research algorithms such as naive Bayes, logistic regression or c4.5 analysis can be performed to see if it improves the result. For future work, in facial emotion recognition, the algorithm can be improvised to achieve good

results and accuracy by concentration on more interesting features of face. These features can be combined with other algorithms such as logistic regression and random forest classifier. Fine tuning and training the linear discriminant analysis algorithm can be used for researching various good features apart from the used ones.

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A STUDY TO ASSESS THE EFFECTIVENESS OF STRUCTURED TEACHING PROGRAMME ON LEVEL OF KNOWLEDGE AND ATTITUDE REGARDING IMMUNIZATION AMONG THE MOTHERS OF UNDER FIVE CHILDREN IN SELECTED RURAL AREAS OF DAMOH(MP)

Prof. Sudharani Banappagoudar

Academic Head , Rama College of Nursing, Rama University, Uttar Pradesh

Abstract

Vaccination is perhaps one in every of the foremost cost effective interventions to cut back burden of childhood morbidity and mortality, provided used optimally and judiciously. Currently it's estimated that immunization saves the lifetime of 3 million children a year but 2 million more lives might be saved by existing vaccines.

Research Design-In this study quantitative approach and quasi experimental one group Pre-test Post-test was used.

Sample size-Total 30 samples were in this study.

Sampling Method-Samples were selected through purposive sampling technique and setting was selected rural area Bansa Tarkheda Village , Damoh.

Method of data collection-Data are collected through structured questionnaire.

Results- In order to find out the significant difference between the mean score of pre and Post-test knowledge score and Attitude score of the mothers regarding immunization paired 't' test was computed. The calculated value is higher than the table value, the null hypothesis was rejected and the research hypothesis was accepted .

The results shows that mean Post-test knowledge score and Attitude scores of the mothers regarding immunization are significantly higher than their mean Pre-test knowledge scores and Attitude scores. Conclusion-The researcher concluded that gain in knowledge and Attitude is not by chance but by STP on immunization.

Key words: Immunization ,Knowledge ,Attitude, Under Five Children, Rural

Introduction

Immunization Programme in India was introduced in 1978(K. Park) as 'Expanded Programme of Immunization' (EPI) by the Ministry of Health and Family Welfare, Government of India(1). In 1985, the programme was modified as eas under National Health Mission (NHM) since 2005. Despite being operational for many years, UIP has been able to fully immunize only 65% children in the first year of their life.(2)

Vaccination is perhaps one in all the foremost cost effective interventions to cut back burden of childhood morbidity and mortality, provided used optimally and judiciously. Currently it's estimated that immunization saves the lifetime of 3 million children a year but 2 million more lives may well be saved by existing vaccines. Vaccination may be a cornerstone of public health, believed to save an estimated 2-3 million lives annually. Therefore, provision of childhood immunization continuous to be a vital component in reducing morbidity and mortality worldwide. India is one of the few courtiers where universal routine childhood immunization is provided free of charge.



Immunization is defined because the process of inducing the immunity in a specific person against an infectious organism or agent, through the vaccination (Satish Gupte 2002). In May 1974, the WHO officially launched a worldwide immunization programme referred to as Expanded Programme of Immunization (EPI), to safeguard all the kids of the globe against six vaccine preventable diseases namely- Diphtheria, Whooping Cough, Tetanus, Polio, Tuberculosis and Measles by the year 2000. Expanded Programme of Immunization (EPI), was launched on January 1978 in India. (K. Park). In 1990, by United Nations Integrated Children's Emergency Fund (UNICEF), EPI was renamed into Universal Child Immunization and it had been launched in India on November 19, 1985 and was dedicated to the memory of Smt. Indira Gandhi (K. Park) . A crucial contribution of microbiology to medicine has been immunization. By this, many vaccines preventable are virtually eliminated (C. P. Baveja, 2005). Vaccine is an immunological substance used to stimulate the production of antibodies and provide immunity against one or several diseases, The vaccine constituents are prepared from the causative agent of a disease, which is used for the treat to act as an antigen without inducing the disease. The preparation of Vaccine is from live attenuated organisms, inactivated or killed organisms, toxoids, or combination of these.

The immune protects a personal against invasion by foreign bodies, specifically microbial agents and their toxic products (Ananthanarayan, 2004) Today vaccination is incredibly essential a part of children health .Vaccination programme could be a key step for the preventive services of kids. the sphere of paediatric vaccination is growing and changing as new vaccines have become available and former diseases are being eradicated because of the complicity and evolution of vaccine preventable diseases .A review of immunology and also the principles of vaccination provide background for information regarding disease transmission and also the current recommended vaccine schedule .The goal of vaccination is to safeguard the population from disease and reduce the incidence of disease and disease transmission. Immunization is vital; it protects nearly 3/4th of kids against major childhood illness. There are several diseases, which might be easily prevented by timely vaccination as part of routine immunization. Every child has the proper to learn from the suitable traditional and new life saving vaccinations. All mothers wish good health for his or her children. medical examiners desire all children immunized against vaccine preventable diseases. The govt wants them protected against progressive diseases. But many vaccines don't reach a majority of infants and youngsters. Decreased awareness, patient compliance and price effectiveness play a significant role in limiting the success of vaccine. Children are innocent, trusting and filled with hope. Their childhood should be joyful and loving. Their lives should mature gradually, as they gain new experiences(3). Each child may be a unique person, someone whose future is affected for better or worse by the influences that mould his or her life during the first years. One child will mature to become a joy to God and oldsters and a blessing to others. Another will get older and become a menace to society. Many others will live out their lives in fairly good ways. The longer term of any society depends on its children. Parents are laying the foundation for his or her child's lives. Therefore the parents have a awfully key role and opportunity to assist promote the health of the youngsters. Children who receive their immunizations on time are healthier children. At birth, infants have



protection against certain diseases because antibodies have skilled the placenta from the mother to the unborn child. After birth, breastfed babies get the continued benefits of additional antibodies in breast milk(4),(5). But in both cases, the protection is temporary. Immunization (vaccination) may be a way of creating immunity to certain diseases by using small amounts of a killed or weakened microorganism that causes the actual disease(6). Microorganisms is viruses, such as the measles virus, or they will be bacteria, like pneumococcus. Vaccines stimulate the system to react as if there have been a true infection; it fends off the "infection" and remembers the organism so it can fight it quickly should it enter the body later.

Today vaccination is incredibly essential a part of children health .Vaccination programme may be a key step for the preventive services of kids .The sphere of paediatric vaccination is growing and changing as new vaccines are getting available and former diseases are being eradicated due to the complicity and evolution of vaccine preventable diseases .A review of immunology and also the principles of vaccination provide background knowledge for information concerned to disease transmission and therefore the current recommended vaccine schedule .The goal of vaccination is to shield the population from disease and reduce the incidence of disease and disease transmission. The physical health of a child is very important because it's related to the mental and social development of kids. Mothers are the primary care providers of their children, is required decrease the under five death rate . one amongst the ways to attain reduction of under five mortality is to teach or educate the mothers on matters regarding child care Approximately 2.5 million children under five years old die every years as a results of disease that may be prevented by vaccination using currently available or new vaccines. India houses an oversized chunk of those unimmunized children. As per 2006 estimates, around 12 million children weren't immunized; Uttar Pradesh with quite 3.0 million unimmunized children tops this list.

In India in 2006, 22,616 cases of pertussis were reported. In developing countries pertussis could be a major reason for mortality. The reported incidence for diphtheria has been 2472(partial) and 10,231 cases within the year 2006 and 2005 respectively. Measles is that the leading reason behind childhood death. In India every 500 children die due to measles .The most worrying factor is that the vaccines coverage against measles in India is merely 66% and even below 50% in many states. There are 8.8 million estimated deaths in children under 5 years old in worldwide due to haemophilic influenza in 2008 .The estimated pneumococcal deaths in Indian children aged 1-5 month per 100 000 is between 100 and <300. An estimated 527,000 children aged <5 years die from rotavirus diarrheal annually, with >85% of those death occurring in low income countries of Asia and Africa

Objectives

1. To assess the Pre-test level of knowledge and attitude regarding the immunization among mothers of under five children.
2. To assess the Post-test level knowledge and of attitude regarding immunization among mothers of under five children.



3. To evaluate the effectiveness of structured teaching program on knowledge and attitude regarding immunization among mothers of under five children in term of gain in Post-test knowledge and attitude score.
4. To find the co relation between the knowledge and attitude regarding immunization among the mother of under five children.
5. To find out the association between Post-test level of knowledge with their selected demographic variables.

Hypothesis

1. H1: The mean Post-test knowledge score is higher than the mean Pre-test knowledge score regarding immunization among the mothers of under five children.
2. H2: The mean Post-test attitude score is higher than the mean Pre-test attitude score regarding immunization among the mothers of under five children.
3. H3: There will be significant relationship between knowledge and attitude regarding immunization among the mothers of under five children.
4. H4: There will be no significant association between the Post-test knowledge scores of mothers regarding immunization and selected demographic variables.
5. H5: There will be no significant association between the Post-test attitude scores of mothers regarding immunization and selected demographic variables.

Assumption

1. The Post-test score will be higher than the Pre-test score.
2. Under five children's mother will not have adequate knowledge and attitude regarding immunization.
3. Demographic variable of the sample may have an influence over knowledge and attitude regarding immunization.

Limitation

1. Data collection was limited to 1 month from 1 March 2017 to 31 March 2017
2. The study was limited to mothers of under five children.
3. The sample size is 30.

Materials and Methods:

1. Research Approach: Quantitative Approach.
2. Research Design: One group Pre-test Post-test design.

Variables

Independent variable: Structured Teaching programme regarding immunization.

Dependent variable: Knowledge and attitude regarding immunization.

Setting: The study was conducted at community area Bansa Tarkheda Village.

Sample size: 30 Mothers of under five children.

Sampling Technique: Purposive sampling Technique

Criteria for Sample Selection

Inclusion criteria

- Mothers of under five children living in Bansa Tarkheda Village
- Mothers those who are have first child in family

Exclusion criteria

- Children who are not willing to participate in the study.
- Those who don't understand English.

Description of Tool

The tool consisted of three sections.

Section-A: Demographic variables of the mother The demographic data consisted of baseline information of mothers of under five children regarding their age, religion, education, occupation, source of information about obligatory vaccination.

Section-B: It consists of knowledge questionnaire on immunization; number of items was 30 questions. The total score for the entire item was 30.

Section-C: 3 point likert scale to assess the attitude of mother with under five children. The number of item was 15. The total score for the entire item was 40.

Results and Discussion:

Distribution of samples according to the Pre-test and post level of knowledge scores of mothers regarding immunization

Table 1: Level of knowledge in Pre-test N=30

Level of knowledge	Pre-test	
	Frequency	%
Adequate	0	0
Moderately adequate	14	46.6%
In adequate	16	53.3%

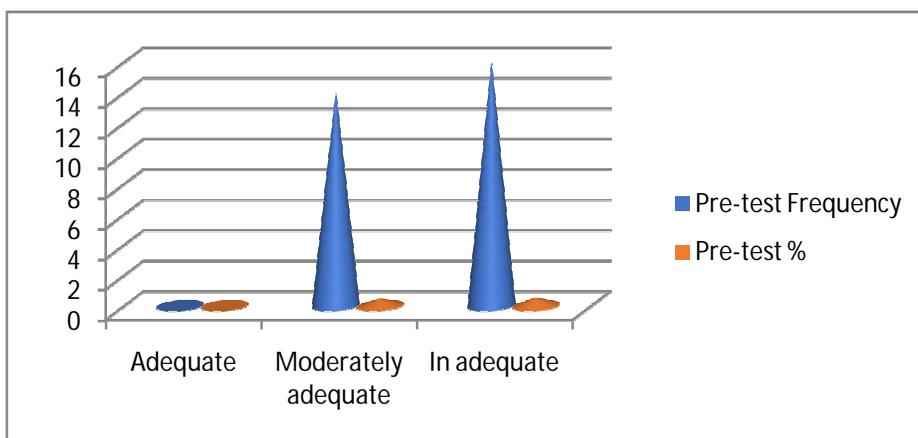


Figure 1: Level of knowledge in both Pre test

It shows that the frequency and percentage distribution of samples according to the Pre-test knowledge score of mothers regarding immunization. It revealed that 16(53.33%) mothers had inadequate knowledge, and 14(46.66%) mothers had moderately adequate knowledge about immunization.

Table 2: Level of knowledge in Post-test N=30

Level of knowledge	Post-test	
	Frequency	%
Adequate	4	13.3%
Moderately adequate	25	83.3%
In adequate	1	3.3%

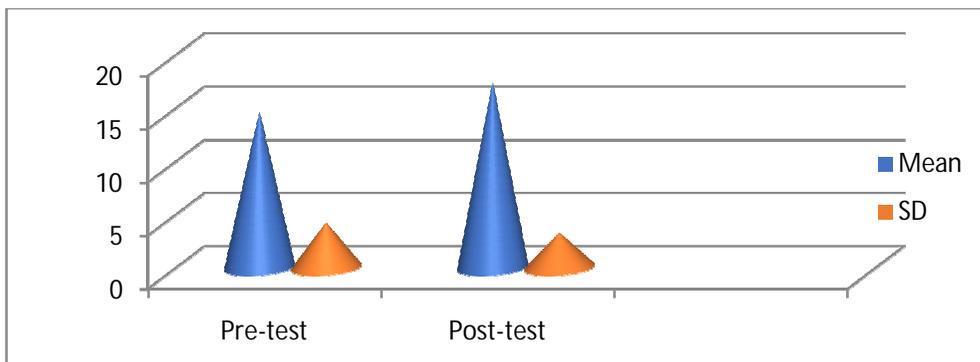


Figure 2: Level of knowledge in Post-test

It shows that the frequency and percentage distribution of samples according to the Post-test knowledge scores of mothers regarding immunization. It revealed that 4 (13.33%) mothers had adequate knowledge, 25(83.33%) mothers had moderately adequate knowledge 1(3.33%) about immunization.

Distribution of samples according to the Pre-test and Post-test attitude scores of mothers regarding immunization

Table 3: level of attitude in both Pre-test N=30

Level of Attitude	Pre-test	
	Frequency	%
Good	5	16.66%
Average	6	20%
Poor	19	63.33%

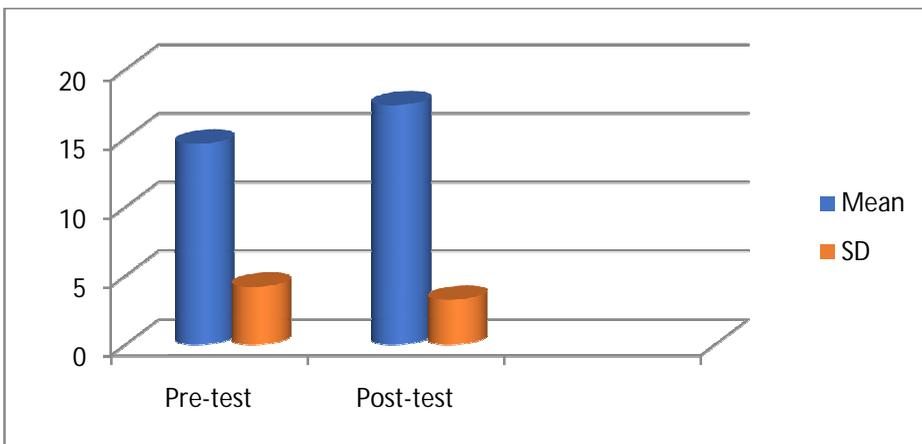


Figure 3: Level of attitude in both Pre-test

It shows that the frequency and percentage distribution of samples according to the Pre-test attitude score of mothers regarding immunization. It revealed that 5(16.66%) mothers had good attitude, and 6(20%) mothers had average level of attitude about immunization, 19(63.33%) mothers had poor attitude.

Table 4: level of attitude in both Pre-test and Post-test N=30

Level of Attitude	Post-test	
	Frequency	%
Good	5	16.66%
Average	24	80%
Poor	1	3.33%

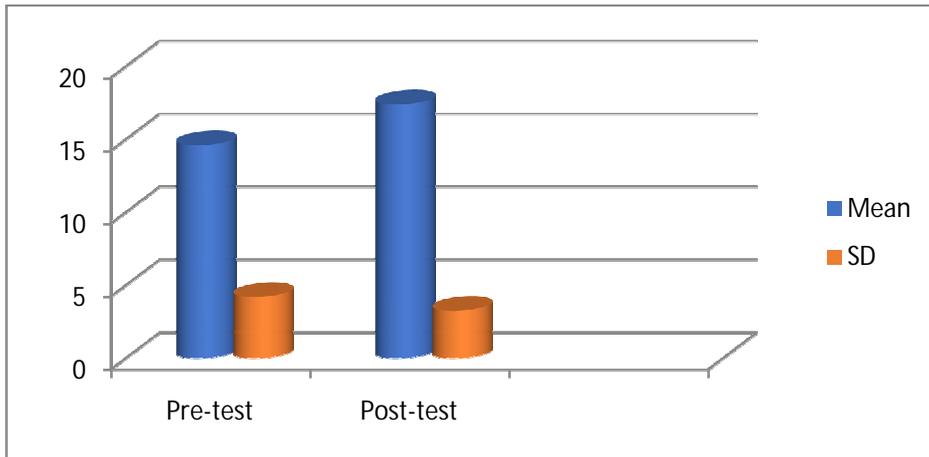


Figure 4: Level of attitude in Post-test

It shows that the frequency and percentage distribution of samples according to the Pre-test attitude score of mothers regarding immunization. It revealed that 5(16.66%) mothers had good attitude, and 24(80%) mothers had average level of attitude about immunization, 1(3.33%) mothers had poor attitude.

Comparison of the Pre-test and Post-test knowledge score on mothers regarding immunization.

Table 5: Comparison of both Pre-test and Post-test level of knowledge score N=30

Knowledge score	Mean	SD	't' VALUE
Pre-test	11.16	3.42	7.65*
Post-test	14.2	3.37	

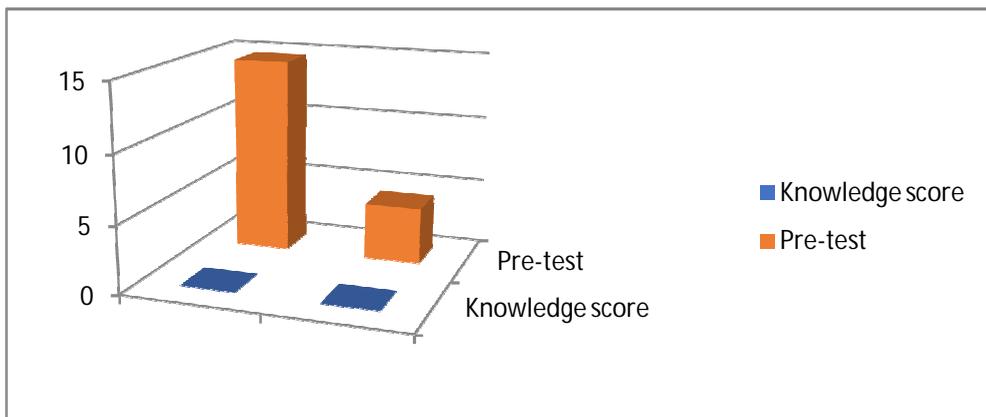


Figure 5 Comparison of the pre test and post test knowledge scores of mothers regarding immunization

In order to find out the significant difference between the mean score of pre and Post-test knowledge score of the mothers regarding immunization paired 't' test was computed. The calculated value is higher than the table value, the null hypothesis was rejected and the research hypothesis was accepted. Hence the researcher concluded that gain in knowledge is not by chance but by STP on immunization.

Comparison of the Pre-test and Post-test attitude score on mothers regarding immunization

Table 6: It shows comparison of both Pre-test and Post-test level of attitude score N=30

Knowledge score	Mean	SD	't' VALUE
Pre-test	14.6	4.2	6.46*
Post-test	17.4	3.25	

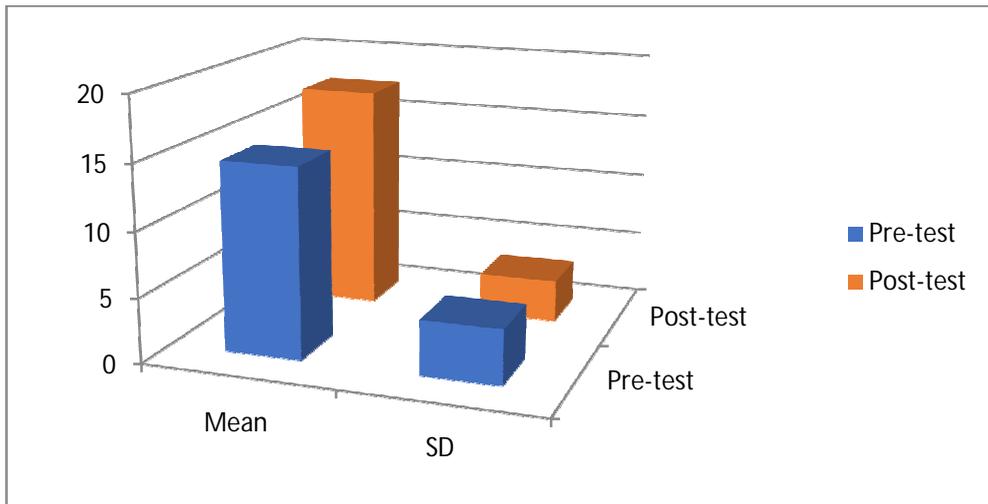


Figure-6-Comparison of the pre test and post test attitude scores of mothers regarding immunization

In order to find out the significant difference between the mean score of pre and Post-test attitude score of the mothers regarding immunization paired 't' test was computed. The calculated value is higher than the table value, the null hypothesis was rejected and the research hypothesis was accepted. Hence the researcher concluded that change of attitude is not by chance but by STP on immunization

Relationship between Post-test level of knowledge and attitude among under five mothers.



Table 5: Relationship between Post-test level of knowledge and attitude. N=30

S.No	Calculated “r” value	Table “r” value
1	-0.22NS	0.381

The ‘r’ value of Post-test level of knowledge and attitude was -0.22, there was a negative correlation between knowledge and attitude which was not significant.

Recommendations

A comparative study can be done between urban mothers and rural mothers who have under 5 children.

A similar study can be conducted with large samples.

Study can be done using different methods of teaching.

Future studies can be conducted on knowledge and factors influence noncompliance of optional vaccine among mothers.

Conclusion

The structured teaching programme through flash cards found to be very effective in improving the knowledge and attitude among mothers who have below 5yrs children on immunization. The knowledge and attitude regarding immunization was improved by health teaching through flash cards. Being as a nurses, our main responsibility is try to make our India, free from communicable disease by providing immunization for all under five children.

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PLAN OF ACTION IN COMBATING MYTHS RELATED TO MENSTRUATION IN CONTEXT TO INDIAN SOCIETY

Ms Sudharani Banappagoudar

PhD Research Scholar, Malwanchal University, Indore (MP) India

Dr Sreemani Pillai

Guide PhD Nursing, Malwanchal University, Indore (MP) India

Abstract

Menstruation is a normal unique phenomenon in every woman's life women's have been excluded from many social and cultural aspects of life as administration is surrounded by many taboos and myths till today. menstruation is considered to be a Taboo in our Indian society due to this taboos which have been enforced on the women's and girls by the societies have put impact on their spirit, mentality and lifestyles and much more significantly on health therefore it is necessary to combat these issues by following some plan of actions.

The current paper aims to discuss the menstrual related myths in India and its impact on the life of women's and girls and strategies to combat them

Keywords: Adolescent, Attitudes, Culture, Myths, Taboos, Social Restrictions, Health Knowledge, Menstruation, Practice, Puberty

Introduction

No one would be here without menstruation. Menstruation is a normal and natural phenomena in the reproductive cycle of every woman Menstruation is an integral part of the female human experience, and without it, women would not be able to get pregnant, give birth, and perpetuate the human species. Menstruation is a process where in which begins at puberty and the menstrual blood comes from the uterus and exits for the vagina it is a natural process .(1) In spite of being the natural phenomena ,unique in girls the Menstruation is always surrounded by secrecy myths and taboos in our society Taboo surrounding menstruation are excluding the woman and the girl from their social and cultural life among these taboos some may be helpful and some have potentially harmful implications(2)

Myths Related to Menstruation

Some myths in Indian Society's are

- You can't enter a kitchen or cook food for anyone else.
- You can't enter a place of worship.
- You can only enter a place of prayer once you've washed your hair on or after the fourth day.
- You must wash your hair on the first day of your period to clean yourself completely. *Buttttt on the contrary...*



- If you wash your hair, your flow will be less and it will affect your fertility later in life.

<https://helloclue.com/articles/culture/36-superstitions-about-periods-from-around-world>

In Indian society even today speaking about menstruation is a Taboo and even till date the cultural and social influences bring hurdles for advancement of knowledge on the menstruation subject.(3) Menstruation is considered to be dirty and impure culturally in many parts of the India ,this Myths are since our Vedic Times and they are linked to Indra's slaying of Vritras According to our Veda our Hindu faith it is been declared that the Menstruation flow had taken upon themselves which were part of Indra's guilt because of killing Brahmin.(4) Women's are being prohibited in participating in normal life activities during menstruation and she must be purified herself before allowing to return to her family day today activities in her life. There is no any reason for notifying to persist the menstruating women as impure as administration which is the natural phenomena where the actual cause of menstruation is ovulation where in is not fertilized results in bleeding of the endometrial and again the preparation for the next menstrual cycle is begin.

Menstruating women's and girls have been imposed restrictions in their daily lives as they are not allowed to enter Pooja rooms which is a major restriction in many urban areas whereas even restriction of entering the kitchen is also been noted in many rural areas also(5). While menstruating girls and women's are restricted from prayer offering and touching the holy books also(6) .The myth underlining this is also show a cultural belief of impurity associated with menstruation. It is also believed that even menstruating women are prohibited from preparing and handling food as they get contaminated because they are unhygienic and unclean As per the study conducted by Srivastava and Kumar in the year 2011 in which the women participated in the study revealed that during the Menstruation some specific smell or waves is been admitted from the woman's body and this in turn make the preserved food bad. Therefore the women are not allowed to touch foods like pickles. There is no any scientific test has shown menstruation as the reason for spoilage of any food in making when considering to the general hygienic measures.

Cultural norms and non secular taboos on menstruation are often compounded by traditional associations with evil spirits, shame and embarrassment surrounding amfimbixis (2).Some cultures instruct women and girls to bury their clothes used during menstruation in order to prevent them being used by Evil Sprits.(8)

Some beliefs that Menstrual blood is to be dangerous, In a small country on North eastern coast of South America, believes that a evil minded or hostile person can do harm to a menstruating woman or girl by using sorcery ("wisi"). Some people believe that menstrual blood is used to impose her will on a man by woman.(1,6) .Such beliefs are still practiced in Asia including India.(4) Where, there seems to be no scientific explanation nor logic for this.

In some parts of India menstruating women and girls are not allowed to eat certain sour foods like curd, pickle(5,7) because it is believed that such foods impose menstrual flow disturbance(9) There are certain restrictions imposed on women and girls during



menstruation that they need not do exercises or any physical activities and even this has been revealed in many Indian studies by adolescent girls as they believe exercise or physical activity may increase pain during menstruation but exercises help in relieving dysmenorrhea during menstruation and also help to relieve bloating and hormone named Serotonin is been released during exercise or physical activity which makes feel much better and happier(9,10,11).

Hinduism perceptions in some parts of the India believes purity and pollution. During menstruating it is believed that the excretions from the woman's body which are produced from the woman's body. In our Indian society no matter the social caste all the women face these problems of bodily processes during menstruation and childbirth therefore it is believed that water is the main medium of purification according to the Hindu deities the protection of water sources from such pollution is key concern physical manifestation.(1,2) This shows the possible reasons why menstruating women are not allowed to take the bath during first few days of her menstruation period. Leading the girls to associate their own bodies with curse and impurity it is been believed that a menstruating women or a girl who touches the cow, that cow will become infertile.

Impact of Myths on women's life while menstruating

Due to the taboos imposed on the menstruating women and girls by societies it has a tremendous impact on the emotional state, mental state, on the lifestyle and also more on the health of the women's and girls there are evidence in some studies that a larger portion of the girls miss their schooling while they are menstruating some Indian studies showed 23% of girls absenteeism is due to menstruation.(12)

Some of the studies in India also showed the monthly menstruation creates and obstacles in female teachers(2). Because of unfriendly school culture gender and Due to the lack of infrastructure facilities lack of adequate menstrual protection alternatives provision of clean and safe toilet for sanitation facilities for menstruating females teachers and girls undermining the right of privacy (2,6). We also need to focus on the health and hygiene of the girls and women while menstruating because around 77% menstruating women and girls in India are using the old cloth and is often reused some studies also reveal that 88% of women in India use dry leaves husk sand and ash newspapers for absorption while menstruating (12)

Because of the order of the menstrual blood the girls are being stigmatized and also because of poor protection and inadequate facilities for washing may increase susceptibility to infection which further affect the mental health of the women are the girl (13)

It is due to facts the knowledge levels and understanding about the changes of puberty administration and the reproductive health is very low due to this the challenge of addressing the socio cultural taboos and believes in menstruation(3,9,13,14)



Plan of action related to combat menstruation related myths

In order to improve the reproductive health of adolescent girls and women for combating the myths and social taboos associated with menstruation it is necessary to take appropriate plan of action. the first and foremost strategy to combat myths and taboos related to menstruation is to increase awareness among women and adolescents related to menstrual hygiene and health. due to the Limited knowledge administration the young girls grow up as their mothers and other woman archery singer issues with them. many adult women does not have Awareness of good hygienic practices for biological facts but instead the Pasteur cultural taboos and restrictions which were observed by them¹. therefore champions community based health education would be the best in Rising awareness about menstruation and menstrual health with this spreading of the awareness among the school teachers also help.

Women empowerment through education and involving them in decision making can also help in improvising these issues as girls are often excluded from decision making because of lower education levels. The important role in improving the health status of the women and community at large and to overcome the cultural myths and taboos educating the women plays important role. Considering the gender perspective provision of the sanitary napkins and adequate facilities for sanitation and washing should be made. In many Metropolitan cities Delhi availability of female toilets is only 8% as that of compared to men⁽¹²⁾.

The rural areas where the access of the sanitary napkin products is difficult there low cost sanitary napkins locally made and distributed⁽⁷⁾. Under the umbrella of National Rural Health Mission 2010 Government of India has approved a scheme improve the menstrual hygiene for adolescent girls by distributing low cost sanitary napkins in rural areas⁽¹⁵⁾. Involving the males and helping them to clear their belief systems is also appropriate in combating the strongly rooted cultural and social and taboos as men and boys have very less information about menstruation but it is important for them to understand about the menstruation, so they can support their mothers sisters students employees and wives⁽¹³⁾. In order to mobilize social support Against spreading myths related to menstruation the Asha workers Anganwadi workers female health workers and school teachers educated so that define disseminate this knowledge in the community. Even employing the trained manpower to address these issues can be helpful in adolescent friendly health services clinic.

Therefore it is not only the health sector but a multi factorial approach which will be helpful to combat the cultural and social beliefs. Further we need to link water and sanitation projects, physical infrastructure projects to health education and reproductive health programs so they can address the issue & can be dealt in Holistic ways ⁽¹⁴⁾. Women girls should understand that menstruation is a natural biological phenomena and due to this they have the power of reproduction⁽⁹⁾.



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REVIEW ON MENSTRUAL HYGIENE MANAGEMENT

Ms Sudharani Banappagoudar

PhD Research Scholar, Malwanchal University, Indore (MP) India

Dr Sreemani Pillai

Guide PhD Nursing, Malwanchal University, Indore (MP)India

Background

Women menstruate on an average between 13 and 50 years of age in low-income settings (but can start as early as from 8 years), amounting to a total of 1400 days of menstruation in a woman's lifetime [1]. It is a healthy biological process, which marks the passage from childhood to adolescents of girls.

Introduction

There is an increase in attention on girls' education by the global development community. As a result, we have seen improved retention and grade promotion for girls in many countries. With this progress, we find ourselves confronting both new challenges and opportunities for girls to achieve an equitable education. Menstrual hygiene management (MHM) is one among several challenges and opportunities.

For girls, menarche and menstruation is a time of intense physical and emotional change for young people between the ages of 10 and 17. Puberty marks a transition between childhood and adulthood that impacts adolescents' physical, emotional and social wellbeing. Evidence shows that during puberty, adolescents embrace and solidify the gender norms of their society. So the way girls and boys see themselves within their family, community and society can be drastically altered for the rest of their lives. In some contexts, puberty leads to increased social restrictions for girls and increased social freedom for boys. Many adolescents, especially girls, will experience a severe drop in self-confidence during puberty. All of these factors, and more, contribute to the increased rates of risky social and health-related behaviors that many adolescents practice.

Menstrual hygiene management (MHM) is part of the overall efforts within Sexual and reproductive health and rights (SRHR). MHM has an impact on development as it has implications on the life of girls and women related to health, education, work, mobility and security. This article gives an overview of why menstruation matters and how to consider menstrual hygiene management (MHM)

DEFINITION OF MHM

Menstrual Hygiene Management (MHM) has been defined as: "women and adolescent girls using a clean menstrual management material to absorb and collect blood, that can be changed in privacy as often as necessary for the duration of the period, using soap and water for washing the body as required and having access to facilities to dispose of used menstrual management materials".²



WHY MENSTRUATION MATTERS

The lack of proper sanitation facilities and proper and affordable hygiene materials for the use by adolescent girls and women at home, at school and at workplaces, affects their health, their potential to access education, employment, overall safety and quality of life. Many girls and women in low- and middle income countries face various barriers in managing menstruation. Special attention must be given to women and girls in vulnerable situations, and especially to women and girls who have been displaced or affected.

Health related risks: Unsafe and unhygienic materials to absorb menstrual blood can lead to vaginal infections, with possible long-term effects on reproductive health

Psycho-social effects: Menstruation is often associated with shame and disgust, resulting in negative attitudes. Restricting socio-cultural practices surrounding menstruation is common.

Education: In many cases, girls will not attend school for the duration of their periods 3,4,5. This is particularly evident in schools with inadequate water, sanitation and hygiene (WASH) facilities.

Productive work time: Women will be constrained to pursue and maintain employment when they are not able to manage their menstruation hygienically and in privacy at work.

Environment: With lack of or limited waste management, non-reusable and commercial items are often disposed into the environment.

POOR MHM AND THE HEALTH EFFECTS

MHM has become a health concern due to the associations between poor MHM and adverse health effects. Among the negative health effects are Reproductive Tract Infections (RTIs) which are common and predominantly found in developing countries [6]. In a recent review of MHM studies, Sumpter and Torondel [1] found that poor MHM is mainly associated with the RTIs called 'endogenous infections', including bacterial vaginal infections (causing vaginal odor, discharge, and pain) and Vulva Vaginal Candidiasis (or vaginal thrush, an infection of the vagina's mucous membrane, causing itching, abnormal vaginal discharge and making sexual intercourse and urination painful

The main reason for infections is the use of inappropriate materials to absorb the menstrual blood. Around the world, women use a variety of methods including sanitary pads, cloths, tampons, and menstrual cups, plant material, different paper material, etc. In India some women use old clothes, paper, ash, and husky sand, while some girls and women in rural Kenya use strips of old blankets. Besides being quite ineffective in containing the menstrual blood and thus causing embarrassing leaking, these methods also because chafing, bad odor and poor vaginal hygiene. Cloth needs to be washed and dried, but in many settings girls and women report that they do not dare to clean and dry menstrual materials outdoors, due to risk of embarrassments, and therefore re-use worn, damp or wet materials. In settings such as IDP1 camps, prisons, and disaster struck areas, women often lack water, soap, toilets as well as menstrual absorbent materials to



perform proper MHM and are simply forced to wear and re-use whatever materials they have for long periods.

HOW TO ENABLE WOMEN TO MANAGE THEIR MENSTRUATION BETTER

• KNOWLEDGE:

Social and cultural taboos about menstruation need to be addressed: Men (husbands and fathers) should also be engaged in this, e.g. through school-based reproductive and menstrual education programs. There is good evidence that educational interventions can improve MHM practices and reduce social restrictions for adolescent girls.

• SANITATION AND SCHOOLS:

Creating proper and private sanitary facilities for girls at home and in schools is of high priority. Girls need privacy, water, soap and places to dispose the menstrual waste. Schools play a central role in this, which will also keep adolescent girls in schools and thus facilitate equality and empowerment of girls and women.

• MENSTRUAL HYGIENE IS NOT JUST A HEALTH ISSUE

Menstrual hygiene is about much more than health: There is a need for including women's rights

experts, educational authorities and sanitation engineers in the MHM discussions. Women have the right to good MHM, they need safe environments, high-quality affordable menstrual products, and proper sanitation technologies to handle their menstruations in safe ways.

• WASH INFRASTRUCTURE

Water, sanitation and hygiene (WASH) facilities are essential for MHM. A safe, clean and private space for changing materials, water and soap to maintain personal hygiene and –if required- also for washing and drying materials is essential. According to the UN Development Goals Report approximately 2 billion people still do not have access to proper sanitation facilities⁷. A majority of schools in developing countries do not provide for adequate WASH facilities that assure functionality and gen- desegregation. Maintaining personal hygiene, changing, disposing and/or washing absorbents can become major tasks, hence due to this hardship girls are forced to stay away from attending school.

• MENSTRUAL ABSORBENTS

Women and girls resort to using unhygienic, unsafe materials during their menstruation due to several factors such as: unavailability, shame experienced when purchasing products publically, and/or inability to pay or a matter of choosing not to spend limited financial means on menstrual needs. The use of inappropriate materials or the unhygienic handling of unsafe materials may also be linked to a lack of knowledge. To make menstrual materials more affordable, more accessible, as well as to reduce harm to the environment, various strategies have emerged in recent years such as:

-Sustainable, ecological and/or lower-costs options, such as washable pads or menstrual cups.



- Subsidize sanitary pad distribution in schools. Unfortunately the experience is mixed in terms of sustainability and has been causing disposal problems.
- Locally produced pads by community based organizations (CBOs).
- Countries such as Canada⁸ and Kenya⁹ removed the luxury and/or consumer tax from sanitary products.

While it is expected that the market for commercial products will continue to grow in developing countries, it is important to acknowledge that many women/girls in low-income settings will not be able to benefit from this.

- **DISPOSAL**

Safe disposal will prevent exposure, human contact and achieve a harmless destruction of soiled materials. If possible materials should be collected and disposed with municipal solid waste management. If that system does not exist, on-site disposal should happen through safe technology (deep burial, composting, pit burning and incineration). Small-scale incinerators are a viable option, but there are health concerns when burning plastic, and they are not always fully functional. The lack of or inadequate unsafe disposal for soiled materials, with women being forced to dispose it in secrecy will reinforce the stigma and shame surrounding menstruation. More research is needed for appropriate disposal solutions that are safe, effective, and affordable.

- **INFORMATION AND EDUCATION**

Receiving factual and comprehensive information about biology and the different aspects of good MHM is crucial to ensure that women and girls can act on their needs. In many low and middle income countries there is no mandated and very limited education in schools concerning menstruation. Teachers are hesitant or unwilling to discuss MHM due to the taboo, being uninformed themselves. Girls are mostly receiving information from their mothers. Comprehensive sexuality education and education and training in SRHR should ideally include MHM. Capacity building to teachers and health workers etc. is also highly required. It is important to include men and boys in training and education to increase their understanding and foster their support, particularly by not imposing discriminatory practices. Existing socio-cultural taboos and discriminatory practices around menstruation need to be challenged.

MHM in emergency and humanitarian crisis situations

In emergency/humanitarian crisis situations women and girls are particularly vulnerable. MHM is often not properly addressed, thus many women and girls lack or have difficulty in accessing adequate hygienic and absorbent menstrual materials and WASH facilities. In regards to MHM, these are some of the proposed actions suggested in emergency situations in the SPHERE Handbook: 1

- Provision of appropriate materials for menstrual hygiene (dignity or sanitary kits).
- Provision for discreet laundering or disposal of menstrual hygiene materials.
- Adequate access to water and soap for daily hygiene as well as for the increased needs during menstruation.



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INFLUENCE OF WEIGHT STATUS ON SPRINT RUNNING AMONG HIGH SCHOOL BOYS

Rakesh .R

Assistant Professor of Physical Education
College of Sericulture, Kurboor Farm, Chinthamani

Abstract:

The purpose of the study is to study the influence of weight status on running sprint among high School Boys. the study is delimited to subjects in the age group of 13 to 15 years the study is delimited to fifty (N=50) Boys from High School from Mysore city only the BMI test is used to assess weight status. Weight status is one of the important concepts for sports achievement and success. It helps body mass with excess for invariably leads to impaired athletic performance because of reduced power to weight ratio. In this study I used HEIGHT WEIGHT BMI Running Sprint tools to know the influence of weight status on sprint running. The Correlation between height and weight, weight was $r=0.369^{**}$ and it was found statistically not significant. The Correlation between height and BMI, BMI was $r= -0.098$ and it was found statistically not significant. The Correlation between height and Performance, Performance was $r= -0.040$ and it was found statistically not significant. The Correlation between weight and height, height was $r=0.369^{**}$ and it was found statistically not significant. The main finding of the study is discussed in reference to the hypothesis formulated for the present study. It is hypothesized there is a relationship to weight status and sprinting performance. Running sprint was significantly correlated with weight status of Boys. Hypothesis formulated for running sprint & weight status is accepted in the case of Boys and this study revealed significantly relationship between these two Variables.

INTRODUCTION

The sport of track and field has roots in human pre history. Track and field events are among the oldest of all sporting completions as running, jumping and throwing are natural and universal forms of human physical expression, the first recorded examples of organized track and field events at a sports festival are the Ancient Olympic Games. Sprinting events are focused around athletes reaching and sustaining their quickest possible running speed. There are three sprinting events which are currently held at the Olympics and outdoor World Championships: the 100 meters, 200 meters, and 400 meters. These events have their roots in races of imperial measurements which were later altered to metric. In this study, the details regarding the selection of subject, criterion measure, sample selected for the study, selection variables for the study, description of the variables used, administration of the test, collection of data and statistical technique employed have been presented.

STATEMENT OF THE PROBLEM

The purpose of the study is to study the influence of weight status on running sprint among high School Boys



DELIMITATION

- The Subjects will be selected randomly in schools from Mysore city.
- The study is delimited to Boys.
- The study is delimited to subjects in the age group of 13 to 15 years.
- The study is delimited to fifty (N=50) Boys from High School from Mysore city.
- Only the BMI test is used to assess weight status.
- To assess running sprint only 50 yard dash test is employed.

LIMITATION

- Factors like heredity, emotional, psychological, sociological and other circumstances are not considered.
- Even when the subjects were asked to perform their best, no extraordinary motivation or encouragement was used to enhance the performance.
- Due to financial and time constrains the study is limited to the Mysore city schools.
- The author depended on the libraries at Mysore, journals & Internet for reviews of literature.

HYPOTHESIS

It is hypothesized there is a relationship to weight status and sprinting performance.

SELECTION OF THE SUBJECTS

- The subjects for the present study are High school Boys. They are selected from Mysore city schools.
- Sample Size
- Sample for the present study consisted of fifty (N=50), subjects whose are in the age group of 13 to 15 years. fifty subjects (N=50) Boys.

Variables are

Sl No	VARIABLES	Tool / Equipments	Criterion measures
1	HEIGHT	Stadiometer	Nearest 0.5mt.
2	WEIGHT	Weighing scale	Nearest 0.1kg
3	BMI	BMI Index	Percentile
4	Running Sprint	50 yard dash	Nearest 1/10 of a second

FIFTY-YARD DASH(1) TEST

Objective : To measure speed

Equipment : Two stop watches, or a watch with a split- second timer is needed. A suitable running area to allow the fifty –yard run plus extension for stopping is also required.



- Directions :** It is advised that two subjects run at the same time. Both start from a standing position. The commands, “Are you ready” and “Go!” are given. At the command to go the starter drops his arm so that the timer at the finish line can start the timing. The subjects run as fast as possible across the finish line.
- Scoring :** The elapsed time from the starting signal until the runner crosses the finish line is measured to the nearest tenth of the a second.

BODY MASS INDEX (BMI) TEST

The Aim : Compares the individual’s height & weight to give an indication of whether he/she is overweight or at a healthy weight for height.

Equipment required :

Weighing Scale and Stadiometer as for Weight and Height

Procedure :

BMI stand for Body Mass Index, BMI is calculated from body mass (weight) and height(H²)= W/(HxH), Where W=Body mass in kilograms and H= Height meters. For instance, if your height is 1.82 meters, the divisor of the calculation will be (1.82 x 1.82)=3.3124. If your weight is 70.50 kilograms then calculated to get BMI Index (70.50/3.3124). The BMI for above measurement is 21.30.

Score :

The higher the score usually indicating higher levels of body fat. Judge your personal BMI result against the following scale: a BMI of less than 18 means you are under weight. A BMI of less than 18.5 indicates you are thin for your height. A BMI between 18.6 and 24.9 indicates you are at a healthy weight. A BMI between 25 and 29.9 suggest you are overweight for your height. A BMI of 30 or greater indicates obesity.

ANALYSIS AND INTERPRETATION OF DATA

The sample included fifty (N=50) Boys among High School.

Necessary data relevant to the present study were collected through the responses of the selected subjects to the weight status inventory administered to them, statistical analysis of data then revealed the following findings which are presented in table.

Description of data is given in below tables.

TABLE.-1
DESCRIPTIVE STATISTICS

Sl No	Variables	Min	Max	Mean	Std. Deviation
1	AGE	13	15	13.7500	-
2	HEIGHT	1.40	1.74	1.5606	0.66380
3	WEIGHT	48.00	60.00	41.898	7.25501
4	BMI	10.54	23.73	17.2006	2.80131
5	PERFORMANCE	5.30	8.80	7.2408	0.85839

(N = 50)



TABLE.2
 CORRELATIONS

SI No	VARIABLES		HT	WT	BMI	PRF
1	HT	Person Correlation	-	0.369**	-0.098	-0.04
		Sig (2-tailed)		0.008		
2	WT	Person Correlation	0.369	-	0.887**	0.374**
		Sig (2-tailed)	0.008		0.000	0.007
3	BMI	Person Correlation	-0.098	0.887**	-	0.392**
		Sig (2-tailed)	0.497	0.000		0.005
4	PRF.	Person Correlation	-0.040	-0.374	-0.392**	-
		Sig (2-tailed)		0.007	0.005	

HT : Height, WT : Weight, BMI : Body Mass Index, PRF : Performance,N:50

- The Correlation between height and weight, weight was $r=0.369^{**}$ and it was found statistically not significant.
- The Correlation between height and BMI, BMI was $r= -0.098$ and it was found statistically not significant.
- The Correlation between height and Performance, Performance was $r= -0.040$ and it was found statistically not significant.
- The Correlation between weight and height, height was $r=0.369^{**}$ and it was found statistically not significant.
- The Correlation between weight and BMI, BMI was $r=0.887^{**}$ and it was found statistically not significant.
- The Correlation between weight and Performance, Performance was $r= -0.374^{**}$ and it was found statistically not significant.
- The Correlation between BMI and height, height was $r= -0.098$ and it was found statistically not significant.
- The Correlation between BMI and weight, weight was $r=0.887^{**}$ and it was found statistically not significant.
- The Correlation between BMI and Performance, Performance was $r=0.392$ and it was found statistically not significant.
- The Correlation between Performance and height, height was $r= -0.040$ and it was found statistically not significant.
- The Correlation between Performance and weight, weight was $r=-0.374^{**}$ and it was found statistically not significant.



- The Correlation between Performance and BMI, BMI was $r = -0.392^{**}$ and it was found statistically not significant.

Table 7
T-Test

Sl No	VARIABLES	T-test for Equality of Means			
		T	df	Sig.(2-tailed)	Mean Difference
1	HT	0.082	97	0.935	0.001
2	WT	3.414	97	0.001	4.778
3	BMI	3.751	97	0.000	1.9776
4	PFR.	-9.418	97	0.000	-1.5086

- HT : Height, WT : Weight, BMI : Body Mass Index, PFR : Performance ,
- df : Difference, Sig : Significance

DISCUSSION

- The main finding of the study is discussed in reference to the hypothesis formulated for the present study.
- It is hypothesized there is a relationship to weight status and sprinting performance.
- Running sprint was significantly correlated with weight status of Boys
- Hypothesis formulated for running sprint & weight status is accepted in the case of Boys and this study revealed significantly relationship between these two Variables.

CONCLUSION

Based on the results, the following conclusion were drawn

- There is relationship between Running Sprint and Weight status.
- There is relationship between Running Sprint and Height.
- There is no relationship between Running Sprint and age.
-

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INDEPTHS OF LUXURY RESORT'S ROOM AMENITIES

Shweta Kalia¹, Dr. Atul Dubey² and Dr. Narendra Shukla³

- ^{1.} Research Scholar, University Institute of Management, Rani Durgavati Vishwavidyalaya, Jabalpur (M.P.)
- ^{2.} Professor & Head, Shri Ram Institute of Technology, Department of MBA, Former Chairman, BOS of Management Rani Durgavati University, Jabalpur
- ^{3.} Professor & Head, Gyan Ganga Institute of Technology & Sciences, Jabalpur, Chairman, Board of Studies Management, Ex. Dean, Faculty of Management, Rani Durgavati University Jabalpur(M.P)

ABSTRACT

Room quality and amenity is one of the reason for choosing any Room categoriseresortwhether the travel is for leisure or business.Purpose of this paper is to know which amenity posses much importance for customers in 5 luxury resorts of Panchmadi forthis reason survey method is adopted. 3 section questionnaire is developed dealing with Respondents profile, Specific Room Features and lastly room category importance.Five pointlikert scale is used to determine the responses.Data is analysed through certain indices and frequency.

Keywords – Luxury Resort, Amenities

INTRODUCTION

Appropriate amenity selection can enhance customer satisfaction and assist in reducing costs in terms of both the amenity itself and also the costs of servicing the room, thus helping a resorts profitability. Resorts may utilize room amenities as a revenue stream, rather than just a complementary element.Room amenity management can be understood as a kind of software for resorts. Changing room amenity for profitability is relatively simple as compared to upgrading the Physical facilities and sitting of the rooms.Resorts can identify preferred brands and amenities valued by the customers and place them in rooms in order to enhance perceived value and customer satisfaction, which also helps in repeat business.Travel and leisure has pulled together some of the coolest amenities customers can find at resorts. It needs to offer the room amenities that matter the most and these are required to be in top quality also as customer want luxury, because of the increasing competition.Along with it there are limited study which particularly deal with the room amenities only.Mostly detailed tariff effects which coincides and are effected by with room features or overall determing the luxury value.

REVIEW OF LITERATURE

Jang and Moutinho (2018).Thispaperanalyze the hotel chains on three factors namely price promotion, information related to the price and user generated content except room prices. How it effects spending by the customers on luxury resort services. As a finding it states that travelers who spend more for highly priced rooms have different lookout with price promotions.

Zang, Le and Law (2011).Focus here is to explore the effect on room rates due to amenities of room, its quality,location, neatness and hotel class.its been found



that hotel location possess great influence on pricing for the room but amenities which effect room rates differ on large scale in different hotel divisions. This study gives the conclusion that hierarchy of needs are been implacable in New York hotel industry, where increasing accommodation requirement are quality of room first, then location and then the services.

Heo and Hyun (2015). This paper finds which room amenities are the most useful and which are least important to the customers while making selections and evaluations of an hotel and willingness to pay more by customers on its positivity. Here wifi was found to be the most useful room feature where as telephone comes under the category of least useful.

RESERCH METHODOLOGY

Resorts operating in panchmani were treated as the population of the study, therefore welcome heritage golf view, ark residency(two resorts), hotel summer and Champak Bunglow was approached for data collection. it was decided to collect 30 quetionnaire from each of the above mentioned resorts. in each resorts questionnaire were distributed on convenience basis during the month of january and received by the mid of march at the end, in total 127 responses were received and analysed through frequency method.

OBJECTIVE

1. Main objective is to know which room amenity is most/least useful to the customers.
2. Do star categorisations of the resorts have any importance while selecting of a stay.
3. To know how important is room while choosing a resort.
4. Is the different room categories are been explored by the customers before booking.

DATA ANALYSIS

Table 1 : Demographic Profile of the Respondents

Variables	Categories	No. of Respondents	Percentage
Gender	Female	41	32.28
	Male	86	67.72
Age	Below 20	10	7.87
	21-29	32	25.20
	30-39	36	28.35
	40-49	34	26.77
	50-59	15	11.81
	60 or above	0	0.00
Educational Qualification	High School < less	12	9.45
	Bachelors degree	40	31.50
	Masters degree	52	40.94
	Doctoral degree	20	15.75
	Others	3	2.36
Annual Income	100,000 & less	8	6.30
	100,000-300,000	16	12.60
	300,000-500,000	32	25.20
	500,000-700,000	20	15.75
	700,000	51	40.16
Type of resort	Economy	18	14.17
	Mid Priced	72	56.69



usually stayed	Luxury	37	29.13
Frequency of staying at resort (Past 12 months)	< 3 times	88	69.29
	3-5 times	35	27.56
	6-8 times	4	3.15
	More than 8 times	0	0.00

N = 127

Demographic Interpretation

Evaluation of customers are done on the basis of gender ,age ,education qualification, annual income , type of resort they usually stay and frequency of the visits .The first part of the questionnaire cover demographic data of the respondents .The results interpret that the majority of customers (67.72%) were male , (28.35%) of them were between 30-39 years old ,40.94 of the respondents % had post graduate degree as edcational qualification .income area of more than 700000 (40.16%) .(56.69%) of the respondant indicate that the a mixed price resorts ,with less than 3 times (69.29%) of visit in an year .Table above contains the demographic statistics.

Table 2 :Room Specific Features

S. No .	Room Amenities	Extremely Important	Quite Important	Moderately important	Somewhat important	Not at all important	
1	Size	No.	48	16	17	35	11
		%	37.80	12.60	13.39	27.56	8.66
2	View from the room	No.	60	28	17	7	15
		%	47.24	22.05	13.39	5.51	11.81
3	Furniture	No.	52	25	16	20	14
		%	40.94	19.69	12.60	15.75	11.02
4	Esthetics (Painting on wall etc)	No.	57	20	27	8	15
		%	44.88	15.75	21.26	6.30	11.81
5	Wifi	No.	69	17	15	9	17
		%	54.33	13.39	11.81	7.09	13.39
6	T.V.	No.	64	18	18	11	16
		%	50.39	14.17	14.17	8.66	12.60
7	Telephone	No.	64	15	22	11	15
		%	50.39	11.81	17.32	8.66	11.81
8	Room Service	No.	56	10	11	20	20
		%	44.09	7.87	8.66	15.75	15.75
9	Heating/AC Control	No.	65	20	22	0	20
		%	51.18	15.75	17.32	0.00	15.75
10	Coffee Machine	No.	56	12	24	7	28
		%	44.09	9.45	18.90	5.51	22.05
11	Mini Bar	No.	55	4	20	18	30
		%	43.31	3.15	15.75	14.17	23.62



12	Stationary	No.	54	12	12	20	29
		%	42.52	9.45	9.45	15.75	22.83
13	Safe	No.	56	13	23	12	23
		%	44.09	10.24	18.11	9.45	18.11
14	Iron	No.	52	29	17	17	12
		%	40.94	22.83	13.39	13.39	9.45
15	24x7 customer services	No.	70	20	15	14	8
		%	55.12	15.75	11.81	11.02	6.30
16	Door Person	No.	56	23	13	13	22
		%	44.09	18.11	10.24	10.24	17.32
17	Room layout	No.	63	24	24	8	8
		%	49.61	18.90	18.90	6.30	6.30
18	Paint on walls	No.	57	28	26	8	8
		%	44.88	22.05	20.47	6.30	6.30

N = 127

DESCRIPTIVE SATATISTICS

TABLE 2 : Descriptive analysis were used to evaluate frequency since all the elements were examined on five point likert scale starting from extremely important to not at all important. The table above explains customers priority related to luxury room elements .here customers found 24*7 services vital when experiencing luxury services in room with 55.12% and on nuber second with 54.33% ranks wifi connection .On contrary least important amenity is seen to be three in number having 6.30% each viz. 24*7 customers services , door personnel and paint on the walls . the analysis determines one very interesting conclusion , where all day services are most as well as least important which can be illuminated as some group of people who stay at high end resorts have two different aspects for single amenity which makes it difficult for the managers to understand the outlook of each customer personally , as all are unique in their perception,

Table 3 :Bed, Bedding comfort and Quality

S. No.	Bed, Bedding and quality	comfort	Extremely Important	Quite Important	Moderately important	Somewhat important	Not at all important
1	Bed size	No.	73	17	13	13	11
		%	57.48	13.39	10.24	10.24	8.66
2	Style	No.	56	14	17	17	23
		%	44.09	11.02	13.39	13.39	18.11
3	Bed Liner	No.	58	16	16	19	18
		%	45.67	12.60	12.60	14.96	14.17
4	Placing of pillows Plush Pillows Breathable bed linens	No.	54	17	21	25	10
		%	42.52	13.39	16.54	19.69	7.87

N = 127



When concerned with rooms , bed and bedding are inevitable part of luxury to explore dreamy bed , customers of panchmani resorts ranked size of the bed ,the most important and crucial during stay with 57.48% and arrangements of bedding , pillow placing , linen styling are evaluated as least useful to them.

Table 4 :Bathrooms

S. No	Bathrooms		Extremely important	Quite important	Moderately important	Somewhat important	Not at all important
1	Size	No.	65	24	14	14	10
		%	51.18	18.90	11.02	11.02	7.87
2	Complementary Toiletries	No.	62	21	22	14	8
		%	48.82	16.54	17.32	11.02	6.30
3	Bathroom amenities (Shower, commode, taps, washstand, etc.)	No.	69	17	12	16	13
		%	54.33	13.39	9.45	12.60	10.24
4	BathTub	No.	60	23	19	13	12
		%	47.24	18.11	14.96	10.24	9.45
5	Hair Dryer	No.	55	12	16	18	26
		%	43.31	9.45	12.60	14.17	20.47
6	Slipper	No.	63	18	14	14	18
		%	49.61	14.17	11.02	11.02	14.17

N = 127

Luxury defines itself with lot many aspects and hotel bathroom is one of the amenity which need to be equally impressive for customers in making a good choice, in this paper , bathroom amenities like shower taps , wash stands stood first in importance list with 54.33% , which reveals the importance of quality too, complimentary toiletries does not attract the customers much with low percentage of 6.30.

Table 5 :BRODER ASPECT OF ROOM

S. No.	Responses		Yes	No
1	Do you check room categories before finalizing the resort ?	No.	127	0
		%	100.00	0
2	Does Clarity of categorization helps to select the resort on repeat?	No.	117	10
		%	92.13	7.87
3	Can you pay more if provided with quality in services in rooms?	No.	82	45
		%	64.57	35.43

N = 127

The paper survey inspect general thoughts of customers for luxury resorts rooms and bring out the conclusion that every (100%)luxury resort visitor check on room



categories before selecting it , but does not agree on, if its clear to know the specific class, rates, features and others specification , it will gurantee their visit.

Table 6 :How Important is the room in selection of any resort ?

S. No.	Responses	No. of respondents	Percentage
1	Extremely Important	67	52.76
2	Quite important	26	20.47
3	Moderately important	12	9.45
4	Somewhat important	12	9.45
5	Not at all important	10	7.87
	Total	127	100

One of the very important question which is inspected by this paper is wheather room plays most crucial role while selection of resorts in panchmani and the answers to this was yes 52.76 % of the customers are of the view that room is of utmost significance, thus rooms needs to be the top most concern to every luxury resort to fetch business in this growing compition.

CONCLUSION

The study evaluated the features of customer satisfaction in resorts of panchmani . as per the main motive of the study is to find which amenity is most useful , in Room category it was found that 24*7 customers services are of much importance to 55.12% customers. Least useful amenity being color on the wall,room layout and all day room service .whereas in category bed and bedding its size of the bed which matters most on contrary keeping positions of linens and pillows the least .in bathroom category fittings and fixtures are very important with complementories are not of much significance great impact it further agrees in. total that every one check room categories before finalizing their stay .the study also discovered that 52.76 % customers are of the thought that Room is of utmost importance in selecting their stay .

Overall , 57 % of customers when talk about the satisfaction in opting any resorts amenity gives to size of their beds .I believe that this findings for customers will be helpul, if resort managers truly want to be successful in gaining competitive edge then they should try to concentrate on aspects of worth .

LIMITATIONS

This research deals with the specific section of hospitality (room and their amenities) hence it creates a better scope for evaluating more angles of resorts. on the other hand, luxury amenities involved may fluctuate from resort taken underconsideration.



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EFFECT OF DIFFERENT LEVELS OF FERTILIZER AND ITS APPLICATION ON GROWTH, YIELD AND QUALITY OF STRAWBERRY UNDER POLY-HOUSE

V.V. Bhagat¹, A.S. Lohakare² and T.B. Tambe³

1. Assistant Professor, College of Horticulture, VNMKV, Parbhani
2. Assistant Professor, College of Horticulture, VNMKV, Parbhani
3. Associate Dean & Principal, College of Horticulture, VNMKV, Parbhani.

ABSTRACT

The present investigation was conducted to find out appropriate combination of time of application and fertilizer levels to improve the growth, yield and quality of strawberry. The experiment was laid out in factorial randomized block design with three replications comprising three time of applications viz. T₁-monthly, T₂-fortnightly and T₃-weekly and four fertilizer levels F₀-100%, F₁-80%, F₂-70% and F₃-60% of recommended dose of fertilizer (RDF) thereby involving twelve treatment combinations on strawberry cv. Winter Dawn. The study revealed that adoption of weekly time application found beneficial in recording higher growth, yield and quality attributes. As regard to fertilizer levels, 80% of RDF recorded higher growth, yield and improved quality parameters of strawberry as compared to rest of treatments under study. The interaction T₃F₁(weekly + 80% of RDF) recorded maximum growth, yield and quality attributes of strawberry var. Winter Dawn.

Keywords: Strawberry, Winter Dawn, Poly-house, RDF, Time of application.

INTRODUCTION

Strawberry (*Fragaria ananassa* Duch.) is one of the most important fruit crop of temperate and subtropical region (Andrew, 2000). It is an attractive, luscious, tasty and nutritious fruit with a distinct flavor. It has a unique place among cultivated berry fruits. It is a delicious fruit taken fresh in several ways. Strawberry is consumed in large quantities, either fresh or in such prepared foods as preserves, fruit juice, ice-creams, milkshakes and chocolates (Rahudkar, 2010). It is a good source of vitamin C, flavonoids and minerals like potassium, phosphorus, calcium, magnesium, sodium, iron, manganese, zinc, copper and selenium. In India strawberry is cultivated commercially in Himachal Pradesh, Uttar Pradesh, Maharashtra, West Bengal, Nilgiri Hills, Delhi, Haryana, Punjab and Rajasthan. In India, overall area supposed to be occupies 1210 ha. and productivity 7.66 MT/ha (Anon. 2015). Maharashtra stands first in area and production of strawberry account 1000 ha. Strawberry grows well under temperate climate. It requires optimum day temperature of 22°C to 23°C and night temperature of 7°C to 13°C. The strawberry cultivar 'Winter Dawn', fruits are medium to large in size and moderately resistant to Botrytis, Anthracnose and fruit rot diseases. This new variety is promising candidate for



commercial success because it produces high fruit yields during a desirable market window. In tropical condition, strawberry can be cultivated in poly-house with proper maintenance of temperature and nutrient supply. The main advantages of poly-house cultivation are the crops can be cultivated successfully throughout the year, getting high productivity with excellent quality, moreover it is easy to protect the crops against extreme climatic conditions and incidence of pest and diseases, thus the genetic potentiality of the crops can be exploited to maximum extent. According to the earlier studies the effect of different fertilizers and their application period have direct influence on yield and quality of strawberry under open conditions but very scanty information was available on same aspect under protected condition and hence the present study was undertaken to examine the response of poly-house grown strawberry in terms of growth, yield and quality to different levels of fertilizers and its application period under Marathwada condition of Maharashtra.

MATERIALS AND METHODS

The field experiment entitled “Effect of different levels of fertilizer and its application on growth, yield and quality of strawberry under poly-house” was conducted at Department of Horticulture, Vasantrao Naik Marathwada Krishi Vidyapeeth, Parbhani during the year 2016-2017. In the present investigation, four levels of fertilizers *viz.* F₀ – Recommended dose of fertilizer i.e 100%, F₁ -80% of recommended dose, F₂ -70% of recommended dose, F₃ -60% of recommended dose combined with three different time of application *viz.*, T₁ –Monthly interval, T₂ –Fortnightly interval and T₃ – Weekly interval were tried involving 12 treatment combinations on the 152 m² area. Fertilizers were applied through urea, single superphosphate and muriate of potash on the basis of 100, 80, 70, 60% of recommended dose for strawberry. The experiment was laid out in Factorial Randomized Block Design with three replications. The growth attributes *viz.* plant height (cm), total number of leaves per plant, total number of flowers per plant, sex ratio, days required for fruit maturity and average fruit weight (g) and total number of fruits per plant. Yield attributes *viz.* total yield(kg ha⁻¹) and marketable yield (kg ha⁻¹) was measured by selecting five plants randomly while above parameters were calculated for fruit yield per hectare (kg) basis. Regarding, quality parameters Titrable acidity (%), Total soluble solids (⁰Brix), Ascorbic acid content (mg/100g), Anthocyanin (mg/100g) were recorded. Data obtained on above various variables were analyzed by analysis of variance method suggested by Panse and Sukhatme (1967).

RESULT AND DISCUSSION

Growth attributes:

The perusal of data presented in table 1 regarding growth of strawberry as influenced by time of application and fertilizer levels recorded significance differences. The result regarding growth attributes *viz.* maximum plant height (20.97 cm) at 60 DAT was recorded in T₃ (weekly application) whereas, the minimum height (19.52 cm) of strawberry recorded in T₁ (monthly application). These results are in conformity with



the findings of Silber *et al.* (2003) in lettuce. The maximum plant height (21.65 cm) was observed with fertilizer level F_0 (100 % of RDF) at 60 DAT while the minimum (19.33cm) F_3 (60 % of RDF)at 60 DAT. The increased in plant height might be due to the higher dose of fertilizer at short intervals. The similar findings are in line of Medeiros *et al.* (2015). Result pertaining to interaction effect the maximum plant height (23.05cm) was observed in treatment combination T_3F_0 (weekly + 100 % of RDF) and minimum (18.10 cm) in T_1F_3 (monthly + 60 % of RDF). The maximum number of leaves per plant (54.10) was recorded in T_3 (weekly application) whereas minimum (51.10) recorded in T_1 (monthly application). Similarly, the maximum number of leaves per plant (55.70) was recorded in F_1 (80 % of RDF) and minimum number of leaves (50.40) was recorded at 60 DAT in treatment F_3 with lowest fertilizer dose (60% of RDF). Increase in number of leaves in higher doses of fertilizer level may be due to higher supply of plant nutrients. Data regarding interaction effect between time of application and fertilizer levels on number of leaves per plant showed significant differences. The maximum number of leaves per plant (56.90) was recorded at 60 DAT in treatment combination of T_3F_1 (weekly + 80 % of RDF) whereas, minimum (50.70) in T_1F_3 (monthly + 60 % of RDF). The similar results were found by Ahmad *et al.* (2011). Significantly maximum number of flowers per plant (19.30) at 60 DAT was found in T_3 (weekly application). While minimum number flowers (17.72) was recorded in T_1 (monthly application). The maximum number of flowers at 60 DAT (19.96) observed in F_2 (70% of RDF) whereas, minimum (17.85) in F_3 (60 % of RDF). Data pertaining to maximum number of flowers per plant in strawberry (21.74) as influenced by time of application and fertilizer was found in treatment combination T_3F_2 (weekly + 70% of RDF) and minimum (17.17) in T_1F_3 (monthly + 60% of RDF). The similar results were found by Muhammad *et al.* (2015).

The maximum sex ratio (78.50%) was found in treatment T_3 (weekly application). The minimum sex ratio (77.10%) was recorded in T_1 (monthly application). The results are in conformity with the earlier findings of Silber *et al.* (2003) in lettuce. The fertility level F_1 (80% of RDF) recorded maximum sex ratio (78.50%) and minimum (77.60 %) in F_3 (60 % of RDF). The interaction effect revealed that treatment combination T_3F_1 (weekly + 80 % of RDF) recorded maximum sex ratio (78.90%) and minimum (77.20 %) in T_1F_0 (monthly +100 % of RDF). Significantly minimum number of days to fruit maturity (20.66) recorded in T_3 (weekly application) whereas, maximum (21.28) recorded in T_1 (monthly application). The fertility level F_1 (80% of RDF) recorded minimum number of days to fruit maturity(19.56). However, the maximum number of days required to fruit maturity (22.60) was recorded in F_3 (60 % of RDF) where lowest fertilizer dose applied. The similar results were found by Vishwakarma *et al.* (2007) in spine gourd. Interaction combination T_3F_1 (weekly + 80 % of RDF) recorded minimum number of days to(19.30 and the maximum days for fruit maturity (23.00) were recorded in T_1F_3 (monthly + 60% of RDF). The maximum fruit weight (14.25g) observed in T_3 (weekly application) whereas, minimum (13.67 g) recorded in T_1 (monthly application). These findings are in accordance with Pervin *et al.* (2014). Data revealed that maximum fruit weight (15.60g) was found in fertilizer level F_1 (80 % of RDF) and minimum (12.90g) recorded in F_3 (60 % of RDF). Treatment interaction showed significant effects as the maximum fruit



weight (16.90 g) was observed in treatment combination T_3F_1 (weekly + 80% of RDF) and minimum (11.87 g) in T_1F_3 (monthly + 60% of RDF). The results are in close conformity with the findings of Pervin *et al.* (2014). Data pertaining to total number of fruits per plant revealed maximum number of fruits per plant (16.15) in T_3 (weekly application) while minimum (15.50) in T_1 (monthly application). The maximum number of fruits per plant (17.70) was recorded in fertilizer level F_1 where fertilizer level was applied at 80 % of RDF. The minimum number of fruits per plant (13.72) was obtained from F_3 (60 % of RDF). The maximum number of fruits per plant (18.20) was found in treatment combination T_3F_1 (weekly + 80 % of RDF). However, minimum number of fruits per plant (13.00) was found in treatment combination T_2F_3 (fortnightly + 60 % of RDF). The similar results are in lines of Ebrahimi *et al.* (2012).

Yield attributes:

The data presented in table 3 showed that yield per hectare of strawberry was significantly influenced by time of application and fertilizer levels. The result pertaining to maximum yield per hectare of strawberry (15735 kg) was recorded in T_3 (weekly application) while, minimum (14997 kg) was recorded in T_1 where fertilizer dose applied at monthly interval. Similar result was given by Silber *et al.* (2003) in lettuce. The maximum yield per hectare (17486 kg) recorded in treatment F_1 (80 % of RDF) while minimum (13267 kg) in F_3 (60 % of RDF) the maximum total yield ha^{-1} (18890 kg) was recorded in treatment combination T_3F_1 (weekly + 80 % of RDF) whereas, minimum (13200 kg) in T_1F_3 (monthly + 60 % of RDF). Similar result was recorded by Gupta *et al.* (2010) in capsicum. Regarding highest marketable yield per hectare (13768 kg) was observed in T_3 (weekly application) and minimum (12447 kg) in T_1 (monthly application). The highest marketable yield per hectare (14764 kg) recorded in F_1 (80% of RDF) and minimum (11423 kg) in F_3 where lowest fertilizer dose i.e. 60 % of RDF was applied. The maximum marketable yield ha^{-1} (15310 kg) was recorded in treatment combination T_3F_1 (weekly + 80 % of RDF). Whereas, minimum (10780 kg) in T_1F_3 (monthly + 60 % of RDF). Similar result was recorded by Miner *et al.* (1997).

Quality attributes:

The perusal of data presented in table 4 revealed that TSS was significantly affected by different levels of fertilizers and time of application. The maximum Total soluble solids (8.16 °B) was recorded in T_3 (weekly application) while, minimum (7.58 °B) found in treatment T_1 (monthly application). Similar result was reported by Silber *et al.* (2003) in lettuce. Data recorded on effect of fertilizer level on total soluble solid in strawberry showed that maximum TSS (8.75 °B) was found in F_1 (80% of RDF) while minimum (7.26 °B) was recorded in F_3 (60 % of RDF). These are in conformity with the findings of Rajbir Singh *et al.* (2008). Interaction effect on TSS revealed that maximum total soluble solids (8.99 °B) was observed in treatment combination T_3F_1 (weekly + 80 % of RDF) and minimum (7.10 °B) in T_1F_3 (monthly + 60% RDF) Similar results were recorded by Kumar *et al.* (2015). The lowest acidity (0.58%) of strawberry fruit juice was observed in treatment T_3 (weekly application) whereas, highest (0.63%) was found



in treatment T_1 (monthly application). Similar results were recorded by Silber *et al.* (2003) in lettuce. The minimum acidity (0.53 %) was recorded in F_1 (80 % of RDF) and maximum (0.65%) was in F_3 (60% of RDF). Rajbir Singh (2008) *et al.* recorded similar results in strawberry. The minimum acidity (0.50 %) was observed in treatment combination T_3F_1 (weekly + 80% of RDF) whereas, maximum (0.68 %) was observed in T_1F_3 (monthly + 60 % of RDF). These results are on similar track with Kumar *et al.* (2015). About maximum ascorbic acid content (65.70 mg/100g) was recorded in weekly application (T_3). Minimum ascorbic acid content (63.22) was obtained in the treatment T_1 (monthly application). Similar result was given by with Silber *et al.* (2003) in lettuce. Maximum ascorbic acid content (66.25 mg/100g) was found in F_1 (80 % of RDF) whereas, minimum (61.74 mg/100g) in treatment F_3 (60 % of RDF). Singh *et al.* (2008) reported similar result in strawberry. Regarding interaction effect the maximum ascorbic acid content (67.30 mg/100g) was found in treatment combination T_3F_1 (weekly + 80 % of RDF) while minimum (60.56 mg/100g) in T_1F_3 (monthly + 60 % of RDF) Similar results were recorded by Kumar *et al.* (2015).

About anthocyanin content in strawberry fruits, the maximum (28.90 mg/100g) value recorded in treatment T_3 (weekly application) and minimum (27.98 mg/100g) in T_1 (monthly application). Similarly, maximum anthocyanin content (30.57 mg/100g) was recorded in F_1 (80 % of RDF) and minimum (26.67 mg/100g) in treatment F_3 (60 % of RDF). The maximum anthocyanin content (31.20 mg/100g) found in treatment combination T_3F_1 (weekly + 80% of RDF), minimum (26.13 mg/100g) was recorded in T_1F_3 (60% of RDF).

CONCLUSION

Weekly application of fertilizers recorded significantly more growth, yield and quality attributes of strawberry.

80 % of RDF resulted in higher growth, yield and quality attributes of strawberry.

The treatment combination of weekly application + 80 % of RDF recorded significantly higher growth, yield and quality attributes in Marathwada region

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Table 1. Growth attributes of strawberry as influenced by different treatments under poly-house condition

Treatment details		Plant height at 60 DAP	Total number of leaves per plant 60 DAP	Total number of flowers per plant	Sex ratio%	Days required for fruit maturity	Fruit weight (g)	Total number of fruits per plant
Time of application								
T ₁	Monthly	19.52	51.10	17.72	77.10(61.41)	21.28	13.67	15.50
T ₂	Fortnightly	20.97	52.20	18.69	78.10(62.10)	20.95	13.72	15.80
T ₃	Weekly	20.21	54.10	19.30	78.50(62.37)	20.66	14.25	16.15
SE ±		0.15	0.38	0.76	0.17	0.20	0.28	0.20
CD at 5 %		0.47	1.14	2.36	0.53	0.60	0.70	0.61
Fertilizer levels								
F ₀	100% of RDF	21.65	52.90	18.05	78.10(62.09)	20.17	14.10	17.20
F ₁	80% of RDF	20.23	55.70	18.30	78.50(62.37)	19.56	15.60	17.70
F ₂	70% of RDF	19.73	50.90	19.96	77.70(61.81)	21.51	13.00	14.72
F ₃	60% of RDF	19.33	50.40	17.85	77.30(61.55)	22.60	12.90	13.72
SE ±		0.18	0.41	0.62	0.20	0.20	0.50	0.50
CD at 5 %		0.56	1.23	1.94	0.61	0.61	1.50	1.52
Interaction effect (T×F)								
SE ±		0.32	0.68	0.36	0.16	0.35	0.56	0.30
CD at 5 %		0.97	2.04	2.36	0.50	1.07	1.62	1.90



Table 2. Interaction effects among growth attributes of strawberry as influenced by time of application and fertilizer levels.

S N	Interaction effect (T×F)	Plant height at 60 DAP	Total number of leaves per plant 60 DAP	Total number of flowers per plant	Sex ratio%	Days required for fruit maturity	Average fruit weight (g)	Total number of fruits per plant
1	T ₁ F ₀	21.00	52.00	17.99	77.60(61.74)	20.87	14.00	17.00
2	T ₁ F ₁	19.20	53.40	17.99	77.80(61.90)	19.90	14.90	17.10
3	T ₁ F ₂	19.80	51.00	18.00	77.40(61.60)	21.40	14.00	14.30
4	T ₁ F ₃	18.10	50.70	17.17	77.20(61.48)	23.00	11.87	13.90
5	T ₂ F ₀	20.90	52.50	17.87	78.10(62.09)	20.50	13.00	17.10
6	T ₂ F ₁	22.10	54.90	18.57	78.30(62.23)	19.50	15.30	17.80
7	T ₂ F ₂	20.50	51.91	20.46	77.90(61.96)	21.00	14.00	14.90
8	T ₂ F ₃	20.40	51.60	17.97	77.70(61.81)	22.80	12.80	13.00
9	T ₃ F ₀	23.05	54.50	18.52	78.30(62.23)	20.20	15.40	17.50
10	T ₃ F ₁	19.40	56.90	18.54	78.90(62.65)	19.30	16.90	18.20
11	T ₃ F ₂	18.90	52.80	21.74	77.90(61.96)	21.12	13.80	15.00
12	T ₃ F ₃	19.50	52.70	18.07	77.90(61.98)	22.00	13.00	14.30
SE ±		0.32	0.68	0.76	0.16	0.35	0.56	0.30
CD at 5 %		0.97	2.04	2.36	0.50	1.07	1.62	0.90

Table 3. Influence of different time of application and fertilizer levels on yield attributes of strawberry under poly-house condition

Treatment details		Total yield kg ha ⁻¹	Marketable yield kg ha ⁻¹
Time of application			
T ₁	Monthly	14997	12477
T ₂	Fortnightly	15142	13094
T ₃	Weekly	15735	13768
SE ±		217.00	365.70
CD at 5 %		650.00	1070.00
Fertilizer levels			
F ₀	100%	15113	13281
F ₁	80%	17486	14764
F ₂	70%	15300	12985
F ₃	60%	13267	11423



SE ±	793.00	495.00
CD at 5 %	2380.00	1485.00
Interaction effect (T×F)		
T ₁ F ₀	14500	11860
T ₁ F ₁	16788	14292
T ₁ F ₂	15300	12978
T ₁ F ₃	13200	10780
T ₂ F ₀	15279	12990
T ₂ F ₁	16780	14690
T ₂ F ₂	15310	12990
T ₂ F ₃	13200	11708
T ₃ F ₀	15560	14995
T ₃ F ₁	18890	15310
T ₃ F ₂	15290	12987
T ₃ F ₃	13400	11782
SE ±	917.00	721.70
CD at 5 %	2750.00	2143.00

Table 4. Influence of different time of application and fertilizer levels on quality attributes of strawberry under poly-house condition

Treatment details		TSS (°Brix)	Acidity (%)	Ascorbic acid (mg/100g)	Anthocyanin (mg/100g)
Time of application (T).					
T ₁	Monthly	7.58	0.63	63.22	27.98
T ₂	Fortnightly	7.93	0.61	64.09	28.57
T ₃	Weekly	8.16	0.58	65.70	28.90
SE ±		0.082	0.013	0.31	0.13
CD at 5 %		0.25	0.040	0.92	0.41
Fertilizer levels (F).					
F ₀	100%	7.76	0.62	65.22	28.87



F ₁	80%	8.75	0.53	66.25	30.57
F ₂	70%	7.75	0.62	64.13	27.83
F ₃	60%	7.26	0.65	61.74	26.67
SE ±		0.37	0.030	0.37	0.60
CD at 5 %		1.10	0.90	1.10	1.82
Interaction effect (T×F)					
T ₁ F ₀		7.12	0.64	63.78	28.62
T ₁ F ₁		8.50	0.55	65.57	29.80
T ₁ F ₂		7.65	0.65	62.97	27.44
T ₁ F ₃		7.10	0.68	60.56	26.13
T ₂ F ₀		7.95	0.62	64.96	28.90
T ₂ F ₁		8.75	0.53	65.87	30.70
T ₂ F ₂		7.85	0.63	63.78	27.90
T ₂ F ₃		7.22	0.66	61.76	26.88
T ₃ F ₀		8.20	0.60	66.96	29.10
T ₃ F ₁		8.99	0.50	67.30	31.20
T ₃ F ₂		7.95	0.62	65.64	28.27
T ₃ F ₃		7.50	0.65	62.90	27.15
SE ±		0.27	0.027	0.55	0.70
CD at 5 %		0.81	0.081	1.67	2.10

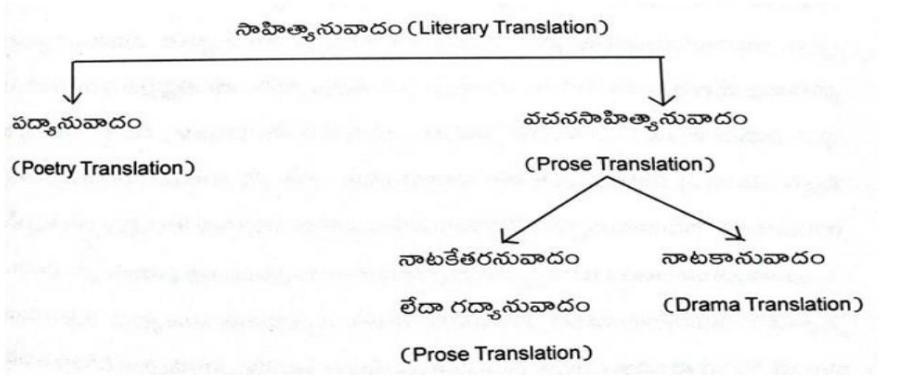


సాహిత్య, సాహిత్యేతరానువాదాలు-మార్గదర్శక సూత్రాలు

- Dr. Y. VIJAYA LAKSHMI,
ASSISTANT PROFESSOR,
NATIONAL SANSKRIT UNIVERSITY,
TIRUPATI.

సాహిత్యానువాదం:

సాహిత్యానువాదాన్ని గురించి చర్చించే ముందు అసలు సాహిత్యం అంటే ఏమిటో తెలుసుకోవలసిన అవసరం ఎంతైనా వుంది. “రచన సుందరమై, సార్వజనీకమైన ప్రయోజనం కలిగి, భావనాత్మకమైన ఆహ్లాదాన్ని కలిగిస్తూ కర్తయొక్క ఆత్మీయతను స్ఫురింపచేసేది సాహిత్యం. సాహిత్యం లేదా సారస్వతం ఒక కళ” సారస్వతంలో ముఖ్య లక్షణాలుగా పేర్కొన్న సౌందర్యం, సార్వజనీనత భావనాత్మకమైన ఆహ్లాదం, కవి ఆత్మీయతలను అనువాదంలో ప్రతిఫలించేయడం సాహిత్యానువాదకులు ఎదుర్కొనే పెద్ద సమస్య. మూల(S.L.) లక్ష్యభాషల(T.L.) రెండింటిలోను ప్రావీణ్యం కలిగి ఉండడమే కాకుండా మూల రచయిత రచనావేశంతో అనువాదకులు మమేకమయినప్పుడే ఉత్తమ సాహిత్యానువాదాలు వెలువడుతాయి. సాహిత్యానువాదాన్ని క్రింది విధంగా వర్గీకరించవచ్చు.





- సాహిత్యానువాదాలను ప్రధానంగా గద్య, పద్యానువాదాలుగా వర్గీకరించవచ్చు. సాహిత్యానువాదకుడికి కొన్ని సాధారణ లక్షణాలుండాలి. అవి
1. సాహిత్య విషయాన్ని అనువాదం చేసేటప్పుడు మూలరచనలోని సౌందర్యం, సారస్వతీనత, భావనాత్మకమైన ఆహ్లాదం, అనువాదంలో ప్రతిఫలించేటట్లు చూడాలి.
 2. సాహిత్యానువాదకుడు సృజనాత్మక రచనలు చేయగలిగితే మంచి అనువాదకుడిగా గుర్తింపు పొందగలుగుతాడు.
 3. మూల, లక్ష్య భాషల నిర్మాణతత్వం పట్ల అవగాహన కలిగి వుండాలి.
 4. భాషకు అందాన్ని తెచ్చిపెట్టే జాతీయాలు, సామెతలు, పలుకుబడుల అర్థాన్ని స్పష్టంగా తెలుసుకుని నానార్థ, పర్యాయ రూపాల పట్ల అవగాహన కలిగి సహజత్వం ఉట్టిపడే విధంగా అనువాదం చేయగలగాలి.
 5. మూలరంధ్ర విషయాన్ని సందర్భోచితంగా వివరించి, విస్తరించి, విసర్జించి, సంగ్రహించి, ఆలంకారికంగా అనువాదం చేయగలగాలి.

పద్యానువాదం(Poetry Translation):

సాహిత్యానువాదంలో పద్యనువాదం మొదటిది. ఇది గద్యానువాదం కన్నా చాలా కష్టంతో కూడుకున్న పని. అందుకు కారణం పద్యరచనలోని సంక్లిష్టత, సౌందర్యాత్మకత అన్న లక్షణాలు. వీటిలో కవి తన అనుభూతుల్ని భద్రపరుస్తాడు. అటువంటి రచనను చదివిన అనువాదకుడు ఆ రచన పట్ల ప్రతిస్పందించి, మూల రచనను అనువదించి తన అనుభూతిని ప్రజలకు వెల్లడి చేయాలన్న లక్ష్యంతో అనువాదానికి పూనుకుంటాడు. పద్యానువాదంలో ప్రధానంగా ఎదురయ్యే సమస్యలు ముఖ్యంగా సౌందర్యాత్మక



వ్యక్తీకరణ(Aesthetic Expression). లయాత్మక నిర్మాణం, రూపాత్మక కవితా సామగ్రికి సంబంధించినవి. కవిత్వాన్ని వచనంలోకి అనువాదం చేసినా కూడా మూలరచన ఆత్మను అనువాదంలో తీసుకురాగలగాలి. మూలరచనలో కవి పొందిన అనుభూతిని అనువాదకుడు కూడా పొందగలగాలి. మూలభాషా రచయితకు, లక్ష్యభాషా రచయితకు భాషానైపుణ్యంలో ఎంతో కొంత భేదముంటుంది. మూలభాషనుంచి అనువాదం చేయబోయే విషయం మీద అధికారం కలిగినవాడై వుంటేనే అనువాదకుడు అనువాదంలో కూడా ఒక సృజనాత్మక కవిగా భాసించగలడు.

ఏ అనువాదంలో అయినా మూలరచయిత పొందిన అనుభూతిని పాఠకులలో కలిగించాలి. లేకపోతే అది జీవం లేని శవమౌతుంది. కవి స్వయంగా చేసినటువంటి అనువాదం ఇతరులు చేసిన అనువాదం కన్నా ఆకట్టుకొనేటట్టుగా ఉండే అవకాశముంది. పద్యనువాదం కవి ఆత్మీయతను ప్రతిబింబింపచేసేదిగా వుండాలి. మూల రచనా స్వరూపానికి, కవితాగుణాలకు దగ్గరగా ఉండేటట్టు అనువాదం చేయాలి. కాబట్టి కవిత్వానువాదం చాలా కష్టమైంది. అయినప్పటికీ మూల, లక్ష్య భాషలలో లోతైన పరిజ్ఞానం, పట్టుదల, పటుత్వం ఉన్న కవి మాత్రం పద్యానువాదానికి కొంతవరకు న్యాయం చేకూర్చగలడు. కవిత్వానువాదం అనువాదకుడికి అనువాదం నైపుణ్యాన్ని బేరీజువేసే గీటురాయి.

గద్యానువాదం(Prose Translation):

ఇక్కడ గద్యం అన్న మాటను వచనానికి(Prose) సమానార్థకంగా వాడడం జరిగింది. గద్యానువాదాన్ని “Prose Translation” అంటారు.



పద్యానువాదాన్ని గురించి జరిగినంత చర్చ గద్యానువాదం మీద జరగలేదనాలి. పద్యానువాదం కన్నా గద్యానువాదం చాలా సులభం అన్న అపోహ అందుకు కారణం కావచ్చు. కాని వాస్తవానికి గద్యానువాదం కూడా కష్టమే. గద్యభాగాన్ని భావయుక్తమైన ప్రమాణాలుగా(Units) విడగొట్టడం అంత సులభం కాదు. ఒక విధంగా ఆలోచిస్తే ఈ విషయంలో పద్యానువాదమే సులభం. ఎందుకంటే పద్యానువాదంలో పదాలు, వాటి సముదాయం, పద్యపాదాలు(Stanzas) విడివిడిగా వుంటాయి. గద్యం విషయంలో ఈ సౌకర్యం వుండదు. గద్యానువాదం చేసేటప్పుడు వాక్యాన్ని ఎలా విడగొట్టుకోవాలి? ఎక్కడ వరకు విడగొట్టుకోవాలి? అనువాద కనిష్ట ప్రమాణాలు ఏమిటి(Minimum Units)? అనేది సమస్య. ఒకసారి వాక్యాన్ని ముక్కలుగా విడగొట్టినందువల్ల భావం కూడా ముక్కలు ముక్కలై సారవిహీనం కావడమో, విరూపం చెందడమో, సర్వనాశనం కావడమో జరుగుతుంది. విడగొట్టకుండా అనువాదం చేయడమూ కష్టమే. అందువల్ల ఈ రెండు ప్రమాదాల నుంచి తప్పించుకుని గద్యానువాదం చేసేటప్పటికి అనువాదకుడికి యజ్ఞం చేసినంత పని అవుతుంది. గద్యానువాదం చేసేముందు మూల రచనా ప్రయోజనాన్ని అనువాదకుడు నిర్ధారించుకొని ఆ ప్రయోజనాన్ని సంపూర్ణంగా అనువాదంలో వ్యక్తం చేసేటట్టుగా అనువాదం చేయాలి. వివిధ రకాల సాహిత్య రచనలలోని శైలీ రీతుల పట్ల అవగాహన ఉండాలి. గద్యానువాదకుడు పదపదానువాదం కాని, వాక్యానికి వాక్యం అనువాదం కాని చేయకుండా నుడికారపు అనువాదం(Idiomatic Translation). భావానువాదం(Communicative Translation) చేయగలగాలి.



“Bassnett-Mc Guire” గద్యానువాదం గురించి ఈ విధంగా చెప్పారు.

Equivalence in translation should not be approached as a search for sameness, since sameness cannot even exist between two T.L. Versions. The translator therefore, has to determine the function of the S.L. System first and then find a T.L. System that will adequately render that function. “Levy” (1967) posed the central questions that face the translator of literary prose texts when he asked”:

What degree of utility is ascribed to various stylistic devices and to their preservation in different types of literature? What is the relative importance of linguistic standards and of style in different types of literature? What must have been the assumed quantitative composition of the audiences to whom translator of different times and of different types of texts addressed their translation.

“Hilaire Belloc” (1931) గద్యానువాదకుడు అనువాదం చేసేటప్పుడు కొన్ని సాధారణ సూత్రాలను దృష్టిలో ఉంచుకోవాలంటాడు. అవి

1. గద్యానువాదకుడు మక్కికి మక్కి అనువాదం చేయక మొత్తం భావాన్ని (Total Concept) మనస్సులో ఉంచుకుని సంబంధిత విభాగాలుగా విడగొట్టుకోవాలి.
2. గద్యానువాదకుడు జాతీయాలను (Idioms) అనువదించేటప్పుడు మూల భాషలోని భావాన్ని వ్యక్తం చేయగలిగితే సరియైన జాతీయాన్ని లక్ష్యభాషలో ఉపయోగించగలగాలి.
3. గద్యానువాదకుడు మూలభాషలోని పదబంధాలను అనువదించేటప్పుడు అవసరమైనచోట మూలభాషలో ఆ పదం లేకున్నా అదే భావ స్ఫూర్తి వచ్చేటట్లుగా, దానికి సమానమైన పదాలను (Equivalents) లక్ష్యభాషలో తీసుకురావాలి.



4. అనువాద భాషాశైలి మూలభాషా శైలివలె స్ఫురించాలి.
5. అనువాదకుడు అనువాదంలో అలంకారాల కోసం ప్రాకులాడకూడదు.
6. గద్యానువాదం చేసేటప్పుడు గద్యానువాదకుడు కొన్ని ప్రశ్నలకు సమాధానం చెప్పుకోవలసిన అవసరముంది.

అవి:

(ఎ) అనువాదకుడు ఎంతవరకు స్వేచ్ఛ తీసుకోవాలి?

(How much freedom can a translator take?)

(బి) మూల రచయితే అనువాదకుడైతే ఉత్పన్నమయ్యే పరిస్థితులేమిటి?

(Does it differ if the author himself turns out to be the translator?)

(సి) వచన సాహిత్యానువాదంలో ఎదురయ్యే ప్రత్యేక సమస్యలేమిటి?

(What are the specific problems of Translating prose?)

(డి) మంచి వచన సాహిత్యానువాద లక్షణాలేమిటి?

(What are the qualities of a satisfactory translation of prose?)

(ఇ) మంచి సాహిత్యానువాదాన్ని నిర్ణయించే ప్రమాణాలేమిటి?

(What are the parameters that can be used in judging the quality of a prose translation?)

వచన సాహిత్యానువాదానికి సంబంధించి పరిశోధకులు మరికొన్ని నిర్ణయాలు చేయడం జరిగింది. అవి

1. In the translation of prose, simplification commonly takes place.
2. Deviations from the S.L. Text like addition, deletion, modification and condensation are common in the translation of prose.
3. All the translators of prose are usually free translations.



4. Self translations are most satisfying provided the author is competent in the target language.
5. In a free translation a certain amount of liberty is taken by the translator. However the liberty so taken should not exceed what is required to take the T.L. Text read like an original text.
6. Linguistic differences between the S.L. and T.L. do not generally create any serious problems in the translation of prose.
7. Metaphors and similes are paraphrased if they do not have equivalents in the T.L.
8. In the translation of prose the two extreme methods of translation i.e. literal translation and free translation are to be avoided as they result in unsatisfactory translations.
9. The content, theme, and effectiveness of the original besides, the perspective and the narrative mode of the author are important in the translation of prose.
10. In the translation of prose even in a free translation errors may arise if the syntactic meanings of individual words and phrases are not understood properly.

నాటకానువాదం(Drama Translation):

సాహిత్యానువాదంలో మరొక ముఖ్యంశం నాటకానువాదం. సాహిత్యానువాదంలో భాగమైనా, “ప్రదర్శనాయోగ్యత”(Performance Orientedness) అన్న లక్షణాన్ని ప్రత్యేకంగా కలిగింది నాటకానువాదం. పద్య, వచన సాహిత్యానువాదాల కంటే భిన్నమైన సమస్యలు నాటకానువాదంలో ఎదురయ్యే అవకాశముంది. నాటకానువాదాన్ని గురించి Sussan Bassnett “Translation Studies” అన్న పుస్తకంలో వివరంగా చర్చించారు. సాహిత్యానువాదంలో ఎదురయ్యే సమస్యలను చర్చిస్తూ, నాటకానువాదాన్ని



బాగా నిర్లక్ష్యం చేశారని, “It is one of the neglected areas” అని అంటారు. నాటకానువాదానికి సంబంధించిన సిద్ధాంతాలను, మార్గదర్శక సూత్రాలను తెలియజేసే సమాచారం అందుబాటులో లేదంటూ-

“There is very little material on the special problems of translating dramatic texts; and the statements of individual theatre translators often imply that the methodology used in the translation process is the same as that used to approach prose texts” అని అభిప్రాయపడ్డారు.

వచనానువాద విధానాన్ని నాటకానికి పూర్తిగా అన్వయించడం సమంజసం కాదు. నాటక రచనా సంవిధానం పూర్తిగా వేరు. అది ప్రదర్శనా ప్రధానమైన ప్రక్రియ. కేవలం చదవడం వల్ల నాటకానికి పరిపూర్ణత్వం సిద్ధించదు. ప్రదర్శన మాత్రమే నాటకానికి పరిపూర్ణతను, సార్థకతను కలిగిస్తుంది. ఈ విషయాన్ని ముఖ్యంగా నాటకానువాదకుడు గుర్తుంచుకొవాలి.

నాటకంలో వాచికం ఒక అంగం మాత్రమే. దానితో పాటు ఆంగిక, సాత్విక, ఆహార్యాభినయాలు కూడా ఉంటాయి. నాటకంలో విషయాన్ని ప్రదర్శన నుండి వేరు చేయడం అసాధ్యం. నాటకం ఒక సమాహార కళ(Comprehensive). ఇందులో చిత్ర లేఖనం, కవిత్వం, శిల్పం, సాహిత్యం మొదలైన అంశాలకు ప్రాధాన్యముంటుంది. ఈ అంశాల్ని అనువాదకుడు దృష్టిలో ఉంచుకోవాలి. నాటకంలోని విషయం(Content), ప్రదర్శన(performance) సంక్షిప్తంగా అల్లుకొని పోయి ఉంటాయి. వాటిని వేరుచేయడం దాదాపు అసాధ్యం.

నాటకంలోని సంభాషణలకు కాలంతోను, పరిసరాలతోను, విడదీయరాని సంబంధముంటుంది. వాటిని భాషేతర విషయాలు(Extra-Linguistic-



features) అంటారు. ఈ నేపథ్యం నాటకంలోని సంభాషణలపై ప్రభావం చూపుతూ ఉంటుంది. ఈ రకమైన భాషీతర అంశాల ప్రాధాన్యాన్ని నాటకానువాదకుడు గుర్తుంచుకోవాలి.

The relationship between the dialogue and the extra linguistic is intense and reciprocal. The situation, variously, interfere the dialogue in its turn the dialogue progressively illuminates the situation; and, often modifies or even transforms it. The actual sense of the individual units of meaning depends as much as on the extra Linguistic situations as on the Linguistic context.

నాటకంలోని సంభాషణల్లో Rhythm, Intonation, Pitch, Loudness ఉంటాయి. నాటకాన్ని ఒంటరిగా, ఏకాంతంగా కూర్చుని చదివేటప్పుడు వాటికి ప్రాణముండదు. ప్రదర్శించేటప్పుడు మాత్రమే ఉనికి తెలుస్తుంది. నాటకానువాదానికి ఎదురయ్యే ప్రధాన సమస్య ప్రదర్శనాత్మకత అయినప్పుడు ఇతర రకాలైన ప్రక్రియల అనువాదానికి నాటకానువాదానికి ఎదురయ్యే సమస్యలు ఒకే రకంగా ఉంటాయని చెప్పలేం. ఇందులో కేవలం సంభాషణలు మాత్రమే కాకుండా దానికి ప్రదర్శనీయతను ఆపాదించే ప్రత్యేకమైన, నిర్మాణాత్మకమైన లక్షణాలుంటాయి. ఆ లక్షణాలను దృష్టిలో ఉంచుకుని అనువదించడమే నాటకానువాదకుని ప్రధాన కర్తవ్యం.

ప్రదర్శనీయత కూడా కాలాన్ని, దేశాన్ని ప్రేక్షకులను బట్టి మారుతూ ఉంటుంది. ఒక్క షేక్ స్పియర్ నాటకాలను తీసుకుంటే నటనా విధానం, రంగస్థలం, ప్రేక్షకుల అభిరుచి, నాటకాన్ని ప్రదర్శించే ప్రాంతం, మోదాంత(Comedy). విషాదాంత(Tragedy) నాటకాల పట్ల ప్రజలకున్న ఇష్టాఇష్టాలు మొదలైన అంశాలను బట్టి అవి ఎన్నో మార్పులకు



లోనయ్యాయి. ఈ అంశాలను అనువాదకుడు తప్పనిసరిగా దృష్టిలో ఉంచుకోవాలి.

ఇతర భాషల్లో అనువాదాలుగా వచ్చిన నాటకాలను పరిశీలిస్తే కొన్నింటిని ప్రదర్శనీయత దృష్టిలో ఉంచుకొని మరికొన్నింటిని ఆ దృష్టి లేకుండా అనువదించినట్లు తెలుస్తుంది. ఈ రెండో రకానికి చెందిన నాటకాలు పాఠకులను మాత్రమే దృష్టిలో ఉంచుకుంటాయి. కాని ప్రేక్షకులను కాదు.

నిజానికి అనువాదం మూలానికి “Reproduction” కాకూడదు. అది ఓ మంచి Interpretation, ఓ మంచి Appreciation, ఓ మంచి Recreation కావాలి. అప్పుడే అది మంచి సాహిత్యానువాదం(Best Literary Translation) అవుతుంది.

“శబ్దంబుననుసరించియు, అభిప్రాయంబు గుర్తించియు, భావంబుపలకీంచియు, అలంకారంబు భూషించియు, అనౌచిత్యంబు పరిహరించియు, ఔచిత్యంబాదరించియు, రసంబు పోషించియు” అంటూ తన అనువాద ప్రణాళికను చెప్పకున్న శ్రీనాథుడు గొప్ప సాహిత్యానువాద మర్మజ్ఞుడు శ్రీనాథుడు పద్యానువాదంలో గాని, గద్యానువాదంలో గాని, నాటకానువాదంలో గాని కవి ప్రతిపాదించిన భావాన్ని సాధ్యమైనంతవరకు రూపుమార్చకుండా ఆవిష్కరించుకోవాలి. అప్పుడే అది ఉత్తమ సాహిత్యానువాదంగా భాసిస్తుంది.

సాహిత్యేతరానువాదం :

సాహిత్యానువాదం కానిది సాహిత్యేతర అనువాదం. ప్రస్తుతం ప్రపంచంలో అన్ని రంగాల్లో వైజ్ఞానికాభివృద్ధి కనిపిస్తుంది. వైజ్ఞానిక రంగంలో ఏ



విషయాన్నయినా తెలుగు భాషలో తెలియజేసే సామర్థ్యం ఏర్పడడానికి కారణం అనువాదాలే. రష్యా, చైనా వంటి దేశాల్లో, వివిధ రంగాల్లో ఆయా దేశ భాషలే మాధ్యమంగా ఉండడం వల్ల వైజ్ఞానిక రంగంలో ఎంతో అభివృద్ధి జరిగింది. తెలుగులో కూడా విజ్ఞాన శాస్త్రాలకు సంబంధించిన సత్యాలు, అన్వేషణలూ కొంతవరకైనా ప్రజలకు తెలియజేయడానికి అనువాదాలే కారణం. ఈనాడు అనువాదం కేవలం సాహిత్య రంగానికే పరిమితం కాకుండా, న్యాయ, రాజకీయ, శాస్త్ర, సాంకేతిక రంగాలకు వ్యాపించింది. సాహిత్యానువాదాల కంటే శాస్త్రానువాదాలు భిన్నంగా ఉంటాయి. శాస్త్రానువాదాలు చేపట్టేవారు రెండు భాషల్లోను సమానమైన ఆధిపత్యాన్ని కలిగి ఉండడమే కాక విషయ పరిజ్ఞానాన్ని, పారిభాషికపదాలపట్ల అవగాహనను కలిగి ఉండాలి. అప్పుడే మూలంలోని భావాన్ని సమర్థవంతంగా లక్ష్యభాషలోకి తేవచ్చు. సాహిత్యానువాదంలో గ్రంథకర్త ఆత్మీయతను అనువాదంలో ప్రతిబింబించడం ఎంత కష్టమో, శాస్త్రానువాదాల్లో సాంకేతిక పదాలను అనువదించడం కూడా అంతే కష్టం. శాస్త్రానువాదాల్లో ఎక్కువ ఇబ్బంది పెట్టేవి పారిభాషిక పదాలు. వీటిని లిప్యంతరీకరణం చేయాలా? అనువదించుకోవాలా? అన్నది ఒక ప్రశ్న. ఒక భాష అన్ని రంగాల్లో పురోగమించాలంటే పరిభాషను అనువదించుకోవాలి. అవసరాన్ని బట్టి నూతన పదజాలాన్ని నిర్మించుకోవాలి. అప్పుడే భాషాభివృద్ధి సాధ్యమవుతుంది. విజ్ఞాన శాస్త్ర విషయాలు మాతృభాషలో బోధించాలంటే వీలుకాదని, వీలవుతుందని రెండు రకాల అభిప్రాయాలున్నాయి. పారిభాషిక పదాలుగా అంతర్జాతీయ పదాలను ఉపయోగించాలి. వాటిని లిప్యంతరీకరణం(Transliteration) చేసుకోవచ్చని, వాటిని



అనువదించుకోవడం సరి అయినదని, అవసరమైతే నూతన పదకల్పన చేసుకోవచ్చని ఇలా అనేక రకాల అభిప్రాయాలు వ్యాప్తిలో ఉన్నాయి. ప్రపంచం వైజ్ఞానికంగా పురోగమించడానికి శాస్త్రానువాదాలు దోహదం చేస్తాయి. శాస్త్రానువాదాలు జ్ఞానం మానవుల ఉమ్మడి సంపద కావడానికి కారణమవుతాయి.

శాస్త్రానువాద లక్షణాలు:

1. శాస్త్రగ్రంథాల అనువాదం ఒక భాష అభివృద్ధిని తెలియజేస్తుంది. వీటిలో విషయానికి (Matter) ప్రాధాన్యం ఉంటుంది. శైలి (Style), అలంకారికత వంటి లక్షణాలకు ప్రాధాన్యం తక్కువ.
2. ప్రపంచం వైజ్ఞానికంగా రూపుదిద్దుకోవడానికి శాస్త్రానువాదం తోడ్పడుతుంది.
3. శాస్త్రానువాదంలో విషయాన్ని స్పష్టంగా చెప్పడం వైపు మాత్రమే దృష్టి కేంద్రీకరించడం జరుగుతుంది. సామాన్యులు కూడా శాస్త్ర పరిజ్ఞానం ఏర్పరచుకోవడానికి ఈ రకమైన అనువాదాలు తోడ్పడుతాయి.
4. శాస్త్రానువాదంలో పారిభాషిక పదాలను అనువదించడంలో మూడు పద్ధతులున్నాయి.

అవి:

- (ఎ) మాతృభాషలో అప్పటికే వ్యవహారంలో ఉన్న పదాలు వాడడం
- (బి) మూలభాషా పదాన్ని లిప్యంతరీకరణ చెయ్యడం
- (సి) మూలపదం ఇచ్చే అర్థాన్ని స్పష్టంగా తెలుసుకొని దాన్ని తెలుగులో చెప్పే ప్రయత్నంలో భాగంగా నూతన పదాలను సృష్టించుకోవడం.



సాహిత్య-సాహిత్యేతర అనువాదాల ప్రత్యేకతలు:

సాహిత్యానువాదం(Literary Translation):

సాహిత్యానువాదంలో భాషా సౌందర్యానికి ప్రాధాన్యముంటుంది. ఇది ఆనంద ప్రాధాన్యాన్ని కలిగి ఉంటుంది. భాషానువాదం చేయవచ్చు. ఇందులో అనుభూతి, రసాత్మక దృష్టి ప్రధానం. దీనిలో అలంకారికశైలికి, కళాత్మక విలువలకు ప్రాధాన్యముంటుంది. వైయక్తిక దృష్టి ఉంటుంది. స్వేచ్ఛానువాదం చేయవచ్చు. ఇందులో పారిభాషిక పదాల సంఖ్య తక్కువ. అర్థనష్టం కొన్ని సందర్భాల్లో జరిగే అవకాశముంది. అర్థం వాచ్యంగా మాత్రమే కాకుండా లక్ష్యార్థంగా కూడా ఉండవచ్చు. సుదీర్ఘ వాక్య నిర్మాణముంటుంది. ఇందులో సౌందర్యాత్మకత, కవితాత్మకతలకు ప్రాధాన్యముంటుంది. సాహిత్యానువాదాల్లో అనువాదకుడు భావావేశం, అనుభూతి వంటి వాటికి ప్రాధాన్యత ఇవ్వాలి. శైలీ వైవిధ్యం కనబడుతుంది.

సాహిత్యేతరానువాదం(Non Literary Translation):

ఇందులో వ్యావహారిక భాష ఉపయోగించడం జరుగుతుంది. భావగ్రహణ ప్రధానం(Comprehension). ఇవి విషయ ప్రధానంగా ఉంటాయి. మూలవిధేయానువాదం జరిగే అవకాశం ఎక్కువ. అర్థస్పష్టత, ప్రామాణికత ప్రధానం. విషయ స్పష్టతకు ప్రాధాన్యముంటుంది. వైయక్తిక దృష్టి ఉండదు. స్వేచ్ఛానువాదాన్ని సాధ్యమైనంత వరకు పరిహరించాలి. పారిభాషిక పదాలు ముఖ్యపాత్రలు వహిస్తాయి. అర్థనష్టం కలిగే సందర్భాలు చాలా తక్కువ. సరళ వాక్య నిర్మాణముంటుంది. వీటిలో ప్రయోజనాత్మక దృష్టి(Functional Approach) ప్రధానంగా ఉంటుంది. సాహిత్యేతర అనువాదాల్లో విషయ



వ్యక్తికరణకే ప్రాధాన్యముంటుంది, తప్ప శైలికి కాదు. శైలి వైవిధ్యం ఇక్కడ తక్కువ.

“Savory” సాహిత్య, సాహిత్యేతర అనువాదాలకు కొన్ని వ్యత్యాసాలుంటాయని పేర్కొన్నాడు.

అవి:

ఎ)విషయం-విధం(Matter and Manner): సాహిత్యానువాదాల్లో విధానానికి(Manner), సాహిత్యేతర అనువాదాల్లో విషయానికి(Matter) ప్రాధాన్యముంటుంది.

బి)నైపుణ్యం(Skill): సాహిత్యానువాదాల్లో మూలరచయిత అనుభూతిని, ఆత్మీయతను పట్టుకోగలగాలి. సాంకేతికానువాదాల్లో మూల, లక్ష్య,భాషలతో పాటు విషయపరిచయం అందులో సాధికారికత(Command) ఉండాలి.

సి)రచనాప్రేరణ(Motivation): సాహిత్యానువాదాలకు ముఖ్యకారణం రచన మీద ఇష్టం ఏర్పడడం. ఇవాకాక సామాజిక, మత సంబంధమైన కారణాలుండవచ్చు. నన్నయ హిందూ మత పునరుద్ధరణ కోసం మహాభారత రచనకు పూనుకున్నాడు. సాంకేతిక అనువాదాల్లో వ్యక్తిగత ఇష్టాఇష్టాలకు తావుండదు. శాస్త్రవిషయదృష్టి ప్రధానం.

డి)బహుళ అనువాదాలు(Multiple Translations): సాహిత్యంలో బహుళానువాదాలకు అవకాశముంటుంది. ఒక్క రామాయణాన్నే చాలామంది అనువాదం చేశారు. అలాగే విశ్వకవి రవీంద్రనాథ్ రాగురు గీతాంజలిని చాలామంది భాషాంతరీకరించారు. ఇటువంటి పరిస్థితి శాస్త్ర సాంకేతిక అనువాదాల్లో తారసపడదు.



ఇ)లక్ష్యార్థ ప్రాధాన్యం(Connotation): సాహిత్య రచనల్లో ఒకే పదానికి అనేక అర్థాలుండే అవకాశముంది. కొన్నిచోట్ల రచయిత ఉద్దేశపూర్వకంగా బహులార్థ బోధకత(ambiguity)ని తెచ్చిపెట్టవచ్చు. శాస్త్ర రచనల్లో ఈ రెండు పరిస్థితులకు తావుండదు. బహుళార్థ బోధకత వల్ల శాస్త్రానువాదం అనాదరణకు గురిఅయ్యే అవకాశముంది. ఇక్కడ చెప్పే విషయం బహుళార్థాలకూ, సందిగ్ధతకూ తావియ్యకూడదు.

ఎఫ్)మూల్యాంకన లేదా పరిగణన(Evaluation): సాహిత్యానువాదకులు ఆత్మాశ్రయ నిర్ణయాల(Subjective Decisions) ఆధారంగా అనువాద మూల్యాంకనకు ప్రమాణాలేర్పరచుకుంటారు. సాహిత్యేతర అనువాద పరిగణనకు సంబంధించిన నిర్ణయాలు పరాశ్రయంగా(objective)గా వుంటాయి.

జి)యంత్రానువాదం(Machine Translation): సాహిత్యానువాదం యంత్రానికి లొంగదు. ఇందులో విషయాన్ని చేర్చడం(Addition) వదిలివెయ్యడం(Deletion) మార్చడం(Modification) ఉండే అవకాశముంటుంది. దీనికి భిన్నంగా సాంకేతిక అనువాదాల్లో విషయ ప్రతిపాదన సూటిగా ఉంటుంది. విషయాన్ని వదలడం, చేర్చడం లాంటివి సాధారణంగా వుండవు. అంటే సాహిత్యానువాదాల కంటే సాహిత్యేతర అనువాదంలో “One to one correspondence” కు అవకాశం ఎక్కువ. ఈ కారణాల వల్ల శాస్త్ర విషయాన్ని యంత్ర సహాయంతో తర్జుమా చేసే అవకాశాలున్నాయి.

సాహిత్య-సాహిత్యేతర అనువాదాలు - న్యూమార్క్ దృక్పథం:



అనువాదం చేసే విషయం సాహిత్యమా, సాహిత్యేతరమా అనే అంశాన్ని దృష్టిలో పెట్టుకుని “పీటర్ న్యూమార్క్” ప్రతిపాదించిన అర్థానువాద, భావానువాద సిద్ధాంతాన్ని ఇక్కడ ప్రస్తావించుకోవలసిన అవసరం వుంది. ఈ ప్రతిపాదన అనువాద సిద్ధాంతానికి “న్యూమార్క్” చేసిన దోహదంగా “నైడా” అభిప్రాయపడ్డాడు.

“Professor New Mark’s Major Contribution is in a detailed treatment of semantic v/s communicative translating in which semantic translation focuses primarily upon the semantic content of the source text and communicative translation focuses essentially relevant for the wide diversity of text types which professor Newmark considers”. Communicative, Semantic సిద్ధాంతాల నేపథ్యాన్ని గురించి New mark ఇలా అంటాడు. The two concepts were formulated in opposition to the monistic theory that translation is basically a means of communication or a manner of addressing one or more persons in the speaker’s presence that translation, like language, is purely a social phenomenon. The concepts of communicative and semantic translation represent my main contribution to general translation theory. “Peter Newmark” తన “Approaches to Translation” అన్న పుస్తకంలో ఈ సిద్ధాంతాన్ని ప్రతిపాదించాడు. తాను ప్రతిపాదించిన ఈ సిద్ధాంతాన్ని గురించి “New Mark” ఈ రకంగా అభిప్రాయపడ్డాడు.

“Semantic translation is some times both linguistic and encyclopaedic, whilst communicative translation is strictly functional.”



కమ్యూనికేటివ్, సెమాంటిక్ సిద్ధాంతాన్ని రచనా ప్రయోజనాలను ప్రస్తావించాడు. New Mark ప్రకారం ఏ విషయనికైనా (Text) మూడు రకాల ప్రయోజనాలుంటాయి.

అవి

1. వ్యక్తీకరణ ప్రయోజనం (Expressive Function)
2. సమాచార చేరవేత ప్రయోజనం (Informative Function)
3. వృత్తిపరమైన ప్రయోజనం (Vocative Function)

సాహిత్యం మొదలైన విషయల్లో ప్రధానంగా మొదటిది వుంటుంది. వీటిలో శైలి వైయక్తికంగా వుంటుంది. ప్రాధాన్యం మూల రచనపై కేంద్రీకృతమవుతుంది. మూల రచయిత దృక్పథం, ఆత్మీయత, ప్రాధాన్యం వహిస్తాయి. సాధారణంగా ఇది మూల విధేయగా వుంటుంది. భాష అలంకారికంగా వుండి శైలిపరమైన ప్రత్యేకతలతో వుంటుంది. ఆత్మశ్రయత్వం (Subjectivity) ఈ రచనల మౌలిక లక్ష్యం. శాస్త్ర సాంకేతిక నివేదిక వంటి రచనల్లో విషయ వివరణ అన్న రెండవ ప్రయోజనం ప్రధానంగా ఉంటుంది. వీటిలో శైలి సాధారణంగా పరాశ్రయం (Objective) గా వుంటుంది.

లక్ష్యభాషలోని సందర్భం ప్రాధాన్యం వహిస్తుంది. భాష అలంకారికంగానే కాకుండా, సరళంగా, సూటిగా వుంటుంది. ఇకపోతే నోటిసులు, చట్టాలు, నిబంధనలు ప్రచార సాహిత్యం వంటి విషయాల్లో మూడో ప్రయోజనం ప్రాధాన్యం వహిస్తుంది. ఇందులో శైలి లక్ష్యభాష వ్యవహారను ఆకట్టుకొనేటట్లుంటుంది. లక్ష్యభాషా సంస్కృతికి ప్రాధాన్యముంటుంది.



పై మూడు రకాల ప్రయోజనాలను అనువాదకుడు దూరదర్శిని(Telescope)లాగా ఉపయోగించుకోవాలని New Mark ఈ రకంగా సూచించాడు.

అనువాద స్థాయిలు (Translation levels)

X	Referential
Y	Textual
Z	Subjective

అనువాద ప్రయోజనాలు(Text Functions)

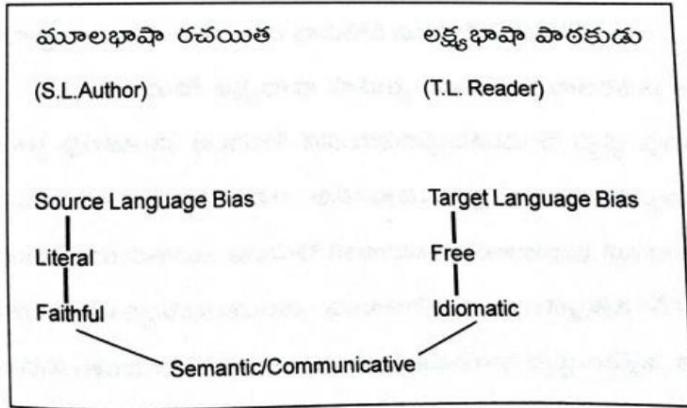
A	B	C
Expressive	Informative	Vocative

The Translation has an instrument consisting of three X,Y,Z – Compare the tubes of a jointed telescope with it he observes a text which exhibits the three functions of language ABC in Varying degrees. He may have to deflect his instrument, which may be focused mainly at A for a poem, B for a technical report C for an advertisement.

ఒక పద్యాన్ని పరిశీలించవలసి వచ్చినప్పుడు A దృష్టితోను (Expressive Function), ఒక సాంకేతిక నివేదికను పరిశీలించవలసి వచ్చినప్పుడు B దృష్టితోను, (Informative Function) ఒక వ్యాపార ప్రకటనను పరిశీలించవలసి వచ్చినప్పుడు C దృష్టితోను (Vocative Function) అనువాదకుడు చూడవలసి వుంటుంది. మరికొన్ని సందర్భాల్లో ఒకే విషయాన్ని(Text) ABని కలిపి BCని కలిపి పరిశీలించవలసి వుంటుంది. ఈ పరిశీలనలో ఉదాహరణకు అనువాదాంశాన్ని x స్థాయిలో అంటే (Referential) స్థాయిలో

పరిశీలించేటప్పుడు తక్కిన రెండు స్థాయిలను (అంటే Textual, Objective) దృష్టిలో వుంచుకోవడం జరుగుతుంది. ఈ రకంగానే తక్కిన రెండు స్థాయిలను పరిశీలించవలసి వచ్చినప్పుడు మిగిలిన రెండింటిని అనువాదకుడు దృష్టిలో వుంచుకోవాలి.

“New Mark” ప్రతిపాదించిన Equivalent Effect Principle of Translation తర్వాత కాలంలో చాలా ఆదరణ పొందిన కమ్యూనికేటివ్, సెమాంటిక్ సిద్ధాంతాలను సంగ్రహంగా New Mark ఈ రకంగా సూచించినారు.



Communicative translation attempts to produce on its readers an effect as close as possible to that obtained on the readers of the original. Semantic Translation attempts to render as closely as the semantic and syntactic structures of the second language allow the exact contextual meaning of the original అని New Mark Communicate Semantic Translation ల లక్షణాలను పేర్కొన్నాడు.

ఈ రెండు అనువాద విధానాల లక్షణాలను “New Mark” ప్రత్యేకంగా తన పుస్తకంలో రెండు అధ్యాయాల్లో చర్చించాడు.



వ్యక్తీకరణ ప్రాధాన్యానువాదం (లేదా) భావానువాదం(Communicative Translation):

దీన్ని వ్యక్తీకరణ ప్రాధాన్యానువాదం అంటారు. పాఠకుడి అవగాహన, అనుభూతి, ప్రతిస్పందన పునాదులు. ఇందులో విషయం ప్రాధాన్యం వహిస్తుంది. ఈ రకమైన అనువాదం చేయడం నైపుణ్యం(Skill) అంటాడు. New Mark. పత్రికా రచన, పాఠ్యపుస్తకాలు, నివేదికలు, సమాచార వ్యాసాలు, ప్రజాబిల్లులు, ప్రఖ్యాత గద్యరచనలు, ముఖ్యంగా నవలలు, కథలు, కమ్యూనికేటివ్ ట్రాన్స్ లేషన్ కోవకు చెందుతాయి. ఈ రకమైన అనువాదం ఒక వ్యక్తి కాకుండా సమూహాన్ని దృష్టిలో పెట్టుకుంటుంది. ఇందులో పాఠకుడు(Reader) ప్రధానంగా వుంటాడు. అతనికి మూలభాషలోని యిబ్బందులతోను, నిర్మాణపరమైన సమస్యల పట్ల ఏమాత్రం ప్రతిస్పందన వుండదు. అతనికి కావలసినదల్లా మూలభాషలోని సమాచారాన్ని సునాయాసంగా తన భాషలోకి మార్పిడి చేయడమే.

ఇందులో లక్ష్యభాషా సాహిత్య రూపాన్ని మూలరచన ఆకృతిని గౌరవించాల్సి వుంటుంది. ఇందులో విషయపరమైనటువంటి దృష్టి వుంటుంది. పాఠకుల మనసు ఆకట్టుకోవడం, అనువాదం పట్ల అతని ప్రతిస్పందనను పరిశీలించడం జరుగుతాయి. ఇందులో Restructuring, Rearranging, Reinforcing అన్న అంశాలకు ప్రాధాన్యముంటుంది. మూలరచన సాంస్కృతిక నేపథ్యాన్ని అనుసరించడం ఇందులో జరుగుతుంది. దీనికి ఉపయోగ దృష్టి ఎక్కువ. ఈ పద్ధతి ప్రయోజనాన్ని మాత్రమే లక్ష్యంగా దృష్టిలో



వుంచుకుంటుంది. మూలరచనలోని తాత్విక సంబంధ రచనలను ఈ రీతిలోనే అనువాదం చేయడం కొన్ని సందర్భాల్లో గమనించవచ్చు.

అర్థప్రాధాన్యాలనువాదం (లేదా) అర్థానువాదం(Semantic Translation):

ఇది అర్థ ప్రాధాన్యాలనువాదం. దీనికి అర్థతత్వం పునాది. ఇందులో మూలభాష రచయిత కేంద్రంగా ఉంటాడు. ఇది పదపదానువాదం (Word for Word Translation) అవుతుంది. దీనిలో విధానం(Manner) కేంద్రంగా ఉంటుంది. ఇది ఒక కళ(Art) అంటాడు New Mark. మతపరమైన రచనలు, సాంకేతిక శాస్త్రాలు, సాహిత్యపరమైన రాజకీయ రచనలు ఈ పద్ధతిని పాటిస్తాయి. ఇది వ్యక్తి ప్రధానంగా ఉంటుంది తప్ప సమాహాన్ని దృష్టిలో పెట్టుకోదు. మూలభాష సంస్కృతిలో ఇమిడి వుండే విషయాలను పాఠకుడు అర్థం చేసుకోవడానికి దోహదం చేస్తుంది. ఇది ఎక్కువ సంక్లిష్టంగాను, వ్యవహారదూరంగాను, వివరణాత్మకంగాను ఉంటుంది. ఇందులో శైలికి, విధానానికి ప్రాధాన్యం ఎక్కువగా వుంటుంది. ఉల్లేఖాల వంటి వాటిని ఈ రీతిలోనే అనువదించవలసి వుంటుంది. ఇందులో మూలరచనలోని మాండలికాన్ని (Dialect), యాసను(Slang) సాంస్కృతిక నేపథ్యాన్ని (Cultural Context) వాక్యాల్లో ప్రతిబింబించే శైలిని జాగ్రత్తగా లక్ష్యభాషలోకి తీసుకురావడం జరుగుతుంది. విదేశీ చట్టాలు, మరణవాంగ్మూలాలు మొదలైన విషయాలని(Text Type) ఈ రీతిలోనే అనువాదం చేయడం జరుగుతుంది. New Mark దృష్టిలో ఈ అనువాద రీతి Literal Translation కంటే భిన్నమైంది. ఈ సందర్భంగా ఆయన Inter-Linear Translation అన్న మాటను



ప్రయోగించారు. ఈ పద్ధతి సందర్భాన్ని గౌరవిస్తుంది. మూలరచనకున్న ప్రాధాన్యం, విలువలు Semantic Translation లో ప్రాధాన్యం వహిస్తాయి.

పై రెండు పద్ధతుల సారాంశాన్ని సంక్షిప్తంగా ఈ విధంగా వివరించవచ్చు.

Semantic Translation:

1. In the process the contextual meaning of the original is preserved and while doing so every care is taken in order to retain the syntactic structures of the original.
2. This type of translation remains in the original S.L. Sphere only.
3. This Translation is more complex, detailed and concentrated: The thought process is reflected but the words and intention of the writer is lost.

Some times it is an over translation; because, in semantic translation, there is more scope of being more specific than the original. This is due to the reason that the translator includes more meanings in search for one nuance of meaning.

4. In this type of translation, form and content are considered as one unit. It is considered more as encyclopaedic.
5. A traditional belief is that in cases where manner and matter are fused, semantic translation is the best method.
6. Semantic translation is more individualistic. It focuses primarily upon the semantic context of the source text.

Communicative Translation:

This type of translation is meant for achieving the same effect on readers as it is obtained in the case of source language readers.

1. The translation is so simple and straight forward that the readers of T.L. readily accept the language, culture, emotional values and some times even the new concepts.



2. It is not focussing on the content but is satisfied with the 'force' only.
3. It adopts and makes the thought and cultural content of the original much closer to the reader.
4. Communicative Translation is functional i.e. social in outlook.
5. Communicative Translation focuses essentially upon the comprehension and response of receptors.

మూలరచన సాంస్కృతిక పరమైన సందేశం కన్నా సాధారణ సందేశం యిచ్చినప్పుడు, విధం కాన్నా విషయం ప్రధానం అయినప్పుడు, మతపరమైన, తాత్విక, శాస్త్ర రంగాలకు సంబంధించిన విషయం అయినప్పుడు, రెండు అనువాదాల మధ్య పోలిక కనిపిస్తుంది. అలంకారాలకు కూడా ప్రామాణికంగా సమానార్థకాలు(Equivalents) లభించే అవకాశం ఉన్నప్పుడు ఏరకంగానైనా అనువాదం చేయవచ్చు. ఈ రెండు పద్ధతుల పరస్పర సంబంధాన్ని, ప్రభావాన్ని New Mark ఇలా పేర్కొన్నారు. "A Communicative Translation should always be Semantic and Semantic translation should always be communicative" ఈ రెండు అనువాదాలకున్న వ్యత్యాసం సందర్భాన్ని ఆశ్రయించి వుంటుంది. ఈరెండింటిలోను అనువాదకుడు 'Structure, Metaphor, Sound' అన్న మూడు భాషాంశాల మీద దృష్టి కేంద్రీకరించవలసి వుంటుంది. కథానువాదం సాహిత్యానువాదంలో ఒక అంశమైనప్పుడు న్యూమార్క్ ప్రతిపాదించిన భావానువాద అర్థానువాద సిద్ధాంతనేపథ్యం కథల అనువాద విశ్లేషణకు ఒక నిర్దిష్ట మార్గాన్ని నిర్దేశం చేస్తుంది.



ఆధార గ్రంథాలు:-

1. సాహిత్య శిల్ప సమీక్ష, పింగళి లక్ష్మీకాంతం.
2. కావ్యానువాదం, ప్రాసంగిక సమస్యలు – ఆచార్య గంగిశెట్టి లక్ష్మీ నారాయణ
(ఆర్థికల్)
3. తెలుగు సాహిత్య సమీక్ష జి.నాగయ్య మొదటి సంపుటి
4. Problems of Translation – Lakshmi .H
5. Approaches to Translation – Peter New Mark
6. Art and Science of Translation – J.V. Sastry