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RACE, ETHNICITY AND HISTORY- THE VOICES FROM BELOW

Domitel D'Souza

ABSTRACT

The title of my paper is influenced by the edited work by Stefan Berger and others 'Writing History Theory and Practice.' This work includes two articles 'Race Ethnicity and History' by Miles Rosenberg and 'The voices from below-doing peoples history in Cardiff docklands' by Glenn Jordan. The theme of my research paper centers around and is a case study of the tribal community of Canacona. This paper tries to highlight the emerging voices of the folk, though silent, resonating their tribal identity, about their race and pride, their ethnicity, their history, culture and tradition. 'Identity centricism', 'Identity consciousness' in search of our past to define our present identity has become the crux of our existence. This is idealized by the concept of 'Goenchi asmitai', or 'Goenkarponn' i.e. the Goan identity and the emerging heritage festivals like ' Ramponkaranche fest' (fisherman's heritage festival) or the 'patoli fest'(thanksgiving harvest festival) all flaunting our Goan heritage past.

The core stress of this paper is to highlight the corresponding emerging voices from below, of the subaltern tribal community, asserting their tribal identity within their geographical and cultural setup. The cultural uniqueness, the marketability value and research value realization has led to a firm rooting of the concept of tribal identity and a move to conserve, preserve, showcase and document the history and tradition of the tribal's by the tribal community themselves. The process of acculturation has set in with the winds of change operating from within and external to the tribal setup. The term 'voices from below' represents the voices of the subaltern which is represented by the tribes of Canacona in context with this paper.

Keywords: Subaltern, Tribal identity, Tribal history, Tribal ethnicity, Oral history.

INTRODUCTION

Human community has generated, refined and passed knowledge orally from generation to generations. This traditional knowledge is a part of the cultural identities. Traditional knowledge plays a vital role in people's life. These traditional knowledge form the 'lesser tradition' and are basically oral, unsystematic, undocumented and under danger of lost due to onslaught of forces of modernization. As a heritage this knowledge needs to be preserved, documented for benefit of local possessors and humanity at large. Any efforts in this direction needs applauds, encouragement and a lending hand.

LITERATURE REVIEW

There is a paucity of information in terms of scholarly works about the tribes of Goa in its written form. However one cannot deny the accessibility of literature on the subject in the vernacular language. The reference list highlights the support material used for writing this paper. Nonetheless mention can be made of Dr. Pandurang Phaldesai (2004). One can find some aspects of the tribal cultural life in his work. Dhume (1986) provides information on the tribes and their origin. Singh (1993) attributes each chapter to highlight the lifestyle of the tribal clans. Bandhari (1999) devotes a chapter to the tribes of Goa. Jha (2009) throws light on 'Little Traditions' and 'Greater tradition'. Berger (2017) an article in this work titled "Voices from Below" has inspired this research paper. Phaldesai (2011) throws light on some of the cultural aspects related to the community under study in this paper. Khedekar (2013) provides info into the eco-cultural traditions of Goa. I have highlighted the relevant information from these works in context of this paper. There is immense literature availability for studying the tribes in the Indian context.

RESERCH METHODOLOGY

Indian Historiography has evolved from the 'elitism' of the colonialists and 'bourgeois-nationalist elitism' to 'Marxist historiography' gaining popularity and still being popular. Subaltern studies with its focus on 'writing history from below', received status of global academic institution due to its popularization by Ranajit Guha. This paper is in conformity with the discipline of subaltern studies historiography, as it is a study of the tribal community who in a generic sense are the marginalized section of our society. The subject had to be dealt with an Oral history approach. Observation method along with interviews techniques has been useful to elicit the necessary information. It is a qualitative research; a case study technique has been employed.

Oral history has 'democratized the story of the past by recording the experience of people hidden from history'. The Subaltern studies adopt the paradigm 'history from below' adding a new dimension to historical narrative from subaltern perspective. The challenge here is to work devoid of any written records and to discern the authenticated voices and to arrive at a factual historical narrative. While attempting to form a historical narrative from the subaltern paradigm the pre-disposition towards conformity with the

patriarchy while neglecting the 'small voices' within the 'voices from below' that could be of women participation needs alteration by willfully attempting by and large a comprehensive narrative.

PROFILE OF THE STUDY AREA

'Goa has been described as a tropical paradise ensconced in the Western Ghats, a part of the Konkan belt reclaimed from the sea by the legendary Parashuram. The early Pastoral communities have lent their name to Goa. The Portuguese rule of 451 years apart ...the exposure to Latin influences has enriched Goan identity..... Goa has been acclaimed as a model of sustainable development, of balance between ecology and population...' befittingly describes the State of Goa the 25th State of the Union of India.

Canacona is the southernmost taluka (administrative unit) of the State of Goa, set amidst the hills and forest resided by the tribal population. Canacona seem to have derived its name from mythological sage 'Kanvarishi' and his abode 'Kanvapuram' which suggest an Aryan angle to the place name. Reference is also made to its name derivation from Kanada language. 'Kan' meaning jungle and 'Kon' means a lake, so a 'lake in the jungle'. 'Kon' also means a buffalo so a place where wild buffaloes abound. The original inhabitants of the land are claimed to be the tribes the Gaudas and the Kunbis. These tribes live in segregated parts of the villages of Patnem, Poinguinim, Loliem, Agonda, Gaondongiri, Cotigao, Chapoli, and Kola all in the taluka of Canacona.

RACE AND ETHNICITY

The Mahars, Kunbis, Velips, Gaudas, Dhangars and the Pagis form the tribal population of Canacona. The Pagis/Pagui has settled around the coast side of Canacona and probably has received the name after the occupation they profess i.e. fishing. The name seems to have originated from the word 'pag' meaning fish or 'paguir' the fishing net. Their craft revolves around fishing. They are endogamous population with exogamous clans (kul) like Parshuram Nirakar Mallikarjun, Guru Pradesh, Betal, Mahamaya named after their family deity. The Gaudas also practice 'kul' clan exogamy, their clans names Betal, Naguesh, Mallikarjun, Kedar also named after their family deities. The Kunbis have two subgroups Gaunkars and Velips. The Velips consider them as separate endogamous groups from the kunbis. The Kunbis engage in agriculture and the Velips are assigned priestly role. These tribes seem to belong to proto-australoid group. In the absence of archeological, anthropological, epigraphic and literary evidences it is difficult to comment with authority. The advent of the Aryan, exemplified by the Shree Parshurama legend is dated between 2550 and 2350 BCE The Mahars the pastoral tribe arrived in 4000 BCE. The Kol arrived around 3000 BCE and Mundari came later. The original place of the Kol and the Mundas is said to be Chota Nagpur. Similarities have

been established between the tribes of Goa and those from the region of Chota Nagpur.

ASPECT OF THE TRIBAL IDENTITY

These tribes have a rich and vibrant culture. Each tribe has their unique rituals and ways of celebrating life. They live at a subsistence level, by large a marginalized community. They allied with the other clans to meet their economic needs and this inter-dependency in the economic sphere was translated into inter-dependence in their religious rituals which can be witnessed till date. This inter-dependence was wisely woven in through their ritualistic practice by assigning specific role to each tribe making them a one unit. The leadership of the 'Budhavant' also knit them together as a unit. The ethnicity and the common shared history form an identity in itself. Their common shared festivals like the 'Zagor', 'Shigmo', 'Fugdi', 'Dhalo' 'Gudulea Parab', 'Nave Parab', 'Asadi Parab' are a joyous experience. The tribal dance forms 'Tonya' 'Fugdi', 'Goff', 'Talgadi' are intricate. Their local musical instruments like the 'Kansalem', 'Taso', 'Dhol', 'Zanz', 'Ghant', 'Ghumat' lend vivacity to their festive mood. Their traditional songs 'Ovis' or 'Hovis' 'Dhantaveleo ovi', 'Lagnageet' (marriage songs), 'Gudulea Gane' (Gudulea parab is the tribal festival in reverence to mother earth), arath (Paryer), 'Chaurang, Shigmo' songs, 'Fugdi' songs while performing chores at home or the fields are unique and forms an interesting aspect of life which are gradually withering and vanishing in the obscurity of time. Their unique style in dress, mannerism, eating of betel leaf, attachment to land, and relationship with nature makes it an exclusive experience from the view point of the spectator.

VOICES FROM BELOW

From the realm of the 'voices from below' which are expressions of the subaltern, the pioneers in the field from amongst the ethnic community, have entrusted upon themselves the responsibility of protecting their tribal cultural heritage, reviving the dying arts forms, safeguarding it from acculturation and also have taken up the task of documentation as well as promoting tribal knowledge by writing in the press. I have made an attempt to discern some of these voices.

An exemplar is Mr. Devendra Tawadkar who is identified with tribal research on themes such as 'eco-cultural tradition amongst the tribes', 'the tribal indigenous techniques and tools of fish catching', on the 'davarne' or the (megaliths), sati stones and also attempting to sustain the art forms like the 'talgadi' (tribal dance form) by inspiring the older generation to train the youth. Mr. Tawadkar is a teacher by profession in the rural school and promotes the interest amongst the young of the community in the tribal history and artifacts by organizing hikes and field visits, as well as serves as resource person in the field of tribal history and culture. His quest for the 'relics and antiquities' of the past makes him a 'voice' much sought after.

Another pioneer is Mr. Devidas Gaonkar who has penned a work 'Goveatil Adivasi- Rachna ani Jivansheli' (The Tribes of Goa- their origin and lifestyle). He is a journalist by profession and is engaged with the task of writing a column in the local newspaper regarding the tribal history and culture. One finds interesting and original information on the tribes in his work on the subject of the origin of the tribes, their lifestyle, livelihood system, traditional agrarian practices, and the system of economic exchange, food preservative techniques and interestingly the tribal networking system, lifestyle of living in harmony between different groups which in local terminology is the 'Gaunki' system. 'Gaunki' is a tribal lifestyle system of cooperation, empathy, sympathy, self-sufficiency, 'one village one family' ideal. This tribal trait of being a 'Gaunki' is sometimes fostered through the ritualistic practices and set religious norms ascribing specific religious roles to every clan and practicing an inclusive policy. The reverence to the ritualistic set norms and the reverence to the tribal leadership who is termed as 'Gaonkar' (Tribal head) and his set norms, kept the tribal society an integral unit through generations. Interestingly the people are still rooted in their traditional ethos, while changes are happening some at a speed pace while others at leisurely pace but change is the 'order of life' undeniably. Modernization and its 'spillover effects' like materialism, individualism and assertiveness have eroded the traditional value system of synchronistic lifestyle resultant is the slowly crumbling of the cohesiveness and the dependent and trust relation which has been an integral component of the tribal society.

The pioneers in the 'voices from below' have initiated a 'Tribal Research Center' Presided by Mr. Devidas Gaonkar which is a progressive step in pooling in the local human resources towards a joint collaborative research and documentation on tribal history and culture. Individual efforts are never adequate when the mission is enormous. It involves wisdom to pull in like- minded persons to accomplish the task. The grand task before the group is to document the history of their land, their traditional knowledge system, oral traditions, performing arts, the techniques of production, their art and crafts which are issues forming just the 'tip of the iceberg'. This task they believe is of immediate concern as the forces of acculturation, neglect of the traditional practices as well as the wearing away of the older generations who are the custodian of the traditional knowledge system would create a void in the process of historical and social construct of this community. Ramita Gaonkar a lady research member has been entrusted with the task of documenting the feminist culture. Their culture is rich and varies between clans. 'Shigmo' is a popular festival and the manner of celebrating differs within clans. The Shigmo celebrated by the inhabitant's of Avali, Bardem, Kuskem is unique, termed as "Dandeavelo Shigmo" (Shigmo celebrated atop the hill). Interestingly the inhabitants of these

places recreate and set up a settlement atop a hill, which have been their original residing place and the celebration continues for 15 days, is a spectacle and a statement on the diverse and an exciting cultural traits.

The objective behind the research center is to preserve their tradition by documentation in its indigenous form. On 'identity' issue the respondent felt that identity is the crux for living and loss of an identity would result in a loss of culture which would further result in a loss of the 'astitva' (life's meaning) itself. Thus preserving, promoting and protection thus becomes of vital significance.

The significance of the research group is that it constitutes 'voices from within' an indigenous or subaltern voice with a base and understanding of the tribal ethos and culture. Documentations of the tribal art forms are attempted by those alien to this community which is the 'outsider' voice' who are at times alien to indigenous knowledge field, resulting in distortion, ascribing terminologies which are nonexistent within tribal vocabulary and in the process of conceptualizing tribal knowledge has resorted to borrowing of theories and knowledge from other tribal studies or tribal groups resulting in artificial interpretation of their cultural ethos. Also the 'reflective few' from outside the tribal set up (termed according to Redfield's theory) gets acclaimed as 'folk artist' without the practical knowledge of the art forms only on the basis of the documented knowledge, is felt as misappropriation of the acclaim which is due to the performers of this art forms.

A measure on a larger scale to promote and showcase the tribal culture and heritage is the 'Lokutsav'. 'Lokutsav' means 'Lok' denoting people and the terminology could be used to signify subaltern group or an indigenous people and 'utsav' meaning celebration or festivity. Thus 'Lokutsav' is the celebration of the people; their heritage, culture, the lifestyle, the traditional knowledge system, art, their crafts, livelihood system, folklore of the ethnic group.

The persona behind the conceptualizing of the 'Lokutsav' is Mr. Ramesh Tawadkar who has served as member of the Legislative assembly. Under the banner of the 'Adarsh Yuva Sangh' and the 'Balram education Society' Mashifond in the village of Painguinim this event is organized. It is a much awaited annual event where an entire tribal village set up is created, giving a glimpse of the tribal 'jivansheli' or the lifestyle within the typical tribal setup. One can glimpse into the items of daily use by the folks which finds exhibited at the 'lokutsav'. Amongst the prominent exhibits besides the household utility items, are also the terracotta pottery of various designs and form. Baskets woven from the grass and cane used for agricultural purpose and storage, the eco-friendly mats, the measuring system, artifacts made of coconut shells are some profound interest. One also gets a peep into the livelihood system, showcasing how pottery is made, woodcutting, pounding, grinding, and weaving the coconut fronds, while the

traditional songs are sung while performing the household chores gives a complete view of subaltern lifestyle. Agricultural equipments and tools on display give knowledge of the processes in the traditional agricultural operation. Another exhibit of interest is the ethno- medicine- herbs and barks used as medicine to cure the common illnesses. One can also be a witness the folk dances enacted. Competitions are organized in order to promote the culture amongst the schools, college students and cultural clubs who wonderfully perform to the tribal tunes. Traditional games and adventure activities, one can engage in as adventure is the part and parcel of the tribal lifestyle. One finds tribal food to relish significant for being cooked devoid of oil and a specialty being the 'pollia bakri' which can be enjoyed while experiencing being in a tribal set up house of thatched roof. Their dress style, ornaments, musical instruments are amongst the other exhibits. 'Lokutsav' is subaltern expression of subaltern culture and lifestyle.

A deep study of the exhibits at this temporary created museum would assist in the historical and the social construct of the bygone eras serving as the source material for building past history. The 'Lokutsav' holds a composite research value enabling readings into the history and ethnicity of the community. Interestingly one does not find 'copper' amongst the display or the 'huge pottery', as they were not a subaltern expression they do not represent the subaltern. The 'Lokutsav' attracts interest from people across the State, the college students, history lovers, foreign tourist even people specially visiting the place from around the neighboring States.

Here the 'past is constructed and placed within the present'. The display represent the achievements of the subaltern while comprehending the complexities of life, acquiring capability for survival often in unfriendly environment, imbibing ecological knowledge and a truly participatory approach to development fostered by a way of life.

The Lokutsav displays the traditional knowledge system which is ancient and has origin in the remote past. The knowledge system like medicine is a 'little tradition' and its systematization and canonization by the elite gave rise to 'greater tradition' sciences. The importance of this ancient knowledge and technology shows the wisdom distilled through millennia of experimentation and trial an error. 'Bhoomipurush' is a souvenir on the 'Lokutsav' which contains the compilation of information with respect to this tribe.

Cultures can be deliberated upon by using the concepts of 'Little Tradition' and 'Great Tradition.' These concepts are credited to Robert Redfield in his study on Mexican society. He stipulates that the tradition does not remain inert or stable. It grows continually in two forms or patterns. One pattern is termed as the 'orthogenetic evolution' where the internal or the indigenous factors are

accountable for the changes. The other is termed as 'Heterogenetic contact' where changes happen due to external contact or intervention of outside forces. The social structure of the culture or civilization functions at two levels, one at the level of 'folk' and the other at the level of 'elite' or 'reflective few'. The Folk are categorized under 'little tradition' and the elite or 'the reflective few' under the 'Greater tradition'. Both these traditions interrelate with each other. These interrelated forces cause the growth and change in the constitution of the tradition.

Following the model of Robert Redfield; Mckim Marriot and Milton Singer has applied this theory to study Indian culture. He believes there is a continuous interaction between 'little tradition' and the 'greater tradition'. Little tradition constitutes the custom, rites, rituals and dialect, while the 'Greater tradition' constitutes the legitimate forms of these things. The meeting point of these tradition results in the 'upward and downward movement'. When little tradition progress upward it is called as 'universalization' while elements of greater tradition travel downward it is called 'parochialisation'.

Applying this theory to our field based study, in the process of propagation and promotion of the culture the 'orthogenetic evolution' is in occurrence and the culture is in the process of evolution and change due to the indigenous factor. Tribal cultural performances hold tourist attraction and the tribal troupe are invited to showcase their performing, art forms for the tourist in hotels as Goa is the tourist destination. In order to make the art forms appealing with increased marketability value, creativity and glamour is introduced in the tribal folk art leading to 'orthogenetic evolution' and loss of originality and acculturation. This is change occurrence from within. At the same time 'Heterogenetic contact' is influencing its evolution and change. The 'Heterogenetic contacts' is facilitated through their enhanced contact with the dominant culture. This contact with the dominant cultures is established facilitated by the development in transport communication, influence of education and media, and the forces of modernization and globalization. Literacy, urbanism, connectivity participation in national political process are indicators of tribal development. Both the movements in 'Redfield's theory' are discernable in the study area. The movement towards 'Universalization' is evident as tribal culture moves to the hotels and catches the fancy of the dominant culture and also helps in the process of 'democratization of culture'. The movement of 'Parochialisation' is seen as the dominant cultural ritualistic style and patterns and lifestyle is adopted by the subaltern in the marriage customs, birthday celebrations, dress style and general lifestyle.

Another aspect of tribal expression is the 'Balgram' or the eco-tourism center' to display the traditional knowledge system which is in its formative phase.

Shree Mallikarjun College of Arts and Commerce an institution of higher learning caters to education of the youth from amongst the tribes. The Department of History encourages 'village studies' 'writing their own history' as projects and assignment thus laying the foundation for 'democratization of culture'. Many cultures co-exist in society none of these allowed to dominate, each gets fair share in recognition and acceptance forms the basis of cultural democracy.

CONCLUDING REFLECTION

This paper has brought to light the interesting aspects of the collective consciousness of the few educated, committed to the work of documentation, showcasing and strengthening of their past. It is a collective work and shared responsibility. These maybe the voices of defiant subalternity committed to the writing of its own history. A few themes for further research are the patriarchy as reflected in the 'Budhavant' system, their historical past, migrational history, their social experiences, experiences of the women, their custom and tradition, their role in freedom struggle, the dying skills, eco-cultural traditions, religious beliefs, their feast and festivity, ethnicity, food culture, past times and games .

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STUDY OF SCIENCE PROCESS SKILLS AND ACADEMIC ACHIEVEMENT AMONG SECONDARY SCHOOL STUDENTS

*Amit Ahuja

ABSTRACT

The science processes are the integral part of the teaching of science. Science as a discipline evolves because of these process skills namely interpretation of data, identifying the variables, hypotheses formation, designing experimental designs, data analysis etc. The science processes if taught over a period of time and mastered by the students lead to the development of scientific attitude among them. Scientific attitude helps the students in becoming methodological and systematic in their approaches. The rationale behind the present descriptive study was to explore how do science process skills support the students in becoming an organized personality and hence ensuring a reliable academic performance? The review of related literature revealed mixed findings with respect to the variables under consideration and hence null hypotheses were framed for the concerned objectives. As sample, 336 class IX students of three Government senior secondary school in Delhi were randomly selected. For data collection, a standardized tool that is Test of Science Processes (K.S. Misra, 2012) was administered on the students. The Mid-term examination marks were used for the variable academic achievement. Data had moderate skewness and hence parametric tests could be employed for statistical analysis. The data analysis comprised t-test and Karl Pearson's coefficient of correlation. It showed that there were gender differences, in the favor of boy students, with respect to science process skills as well as academic achievement scores. The science process skills and academic achievement were significantly and positively correlated to each other. The study had educational implications for teachers, students and the parents.

Key words: Science, Scientific Attitude, Science Process Skills, Academic Achievement.

INTRODUCTION

In schools, science curriculum focuses upon the science process skills as essential tools that support the students to construct knowledge (Ongowo, 2017). For the students to comprehend the science concepts, laws, principles, theory etc. it becomes essential to develop an ability to link the constructed knowledge and developed skills. Science process skills nurture the critical thinking as by nature they are investigative and cognitive (Ostlund, 1992). The science processes are the integral part of the teaching of science. Science as a discipline evolves because of these process skills namely collection transformation and

interpretation of data, identifying the variables, defining the variables, describing the relationship between the variables, hypotheses formation, designing experimental designs, data analysis, drawing the conclusions, generalization etc. Science process skills simplify the learning of science, motivate the students, foster a sense of responsibility among them with respect to learning, enhance the permanency of learning etc. (Carey et al, 1989). The science processes if taught over a period of time and mastered by the students lead to the development of scientific attitude among them. Scientific attitude helps the students in becoming methodological and systematic in their approaches. Inteaching and learning situations, academic achievement is generally measured by continuous assessment or examinations. The outcome of education is academic achievement (Mimrot, 2016). In school scenario, the learning on the part of the students is directly related to academic achievement (Nisar et al, 2017) as a quality school environment is linked with academic achievement (Hattie, 2009). Methodologically, the teachers must exercise the efforts to improve the academic performance of students by systematically conducting activities, sequentially organizing activities so that students are able to sense the meaning of the task performed. The rationale behind the present descriptive study was to explore how do science process skills support the students in becoming an organized personality and hence ensuring a reliable academic performance that is reflected as academic achievement?

LITERATURE REVIEW

In the domain of science process skills, the review of related literature showed mixed findings as some studies have reported that the girl students had significantly higher scores than boy students (Raj & Devi, 2014 and Zeidan & Jayosi, 2015) while some other studies have reported reverse trend that is boy students had significantly better science process skills (Ongowo, 2017). Also, no significant difference between boy and girl students on science process skills has been found (Ong et al, 2015). Regarding the locale, urban students had better performance than rural students in the dimensions of science process skills namely classification, inference, observation, and communication (Ong et al, 2015 and Ongowo, 2017). The rural students had significantly better mean scores, than urban students, on the measurement dimension of science process skills (Raj & Devi, 2014 and Zeidan & Jayosi, 2015). The studies have shown that the science process skills have low positive (Raj

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& Devi, 2014) and significantly positive correlation with achievement in science (Feyzioglu, 2009), formal thinking abilities (Brotherton & Preece, 1995) and laboratory use (Feyzioglu, 2009 and Sukarno et al, 2013). Peer assisted techniques and school related activities supported the students in significantly improving their academic achievement (Ng et al, 2016 and Sa-ngiamjit, 2016) as well as science process skills (Sa-ngiamjit, 2016). In the area of academic achievement, the literature reviewed shows that at higher secondary school level, boy and girl students significantly don't differ in academic achievement (Dhall, 2014; Jennabadi et al, 2015 and Goel, 2015) but some studies have reported the findings in the favor of boy (Nadeem & Ahmad, 2016) and girl students (Mimrot, 2016) also. There are mixed findings between academic achievement & academic achievement motivation (Broussard & Garrison, 2014 and Dhall, 2014) and mental health (Jogson & Doshi, 2014 and Ahuja, 2016). At secondary school level, The students of private schools have better academic achievement in comparison to the students of government schools (Mimrot, 2016). Studies have explored that the academic achievement is not significantly correlated with emotional intelligence (Yilmaz, 2007) but some other studies reported a significant positive correlation with emotional intelligence (Jennabadi et al, 2015 and Prabha, 2015), socio economic status, study habits, school climate (Nisar et al, 2017). Studies have also shown that the academic achievement has significantly positive correlation (Vaishnav & Chirayu, 2013 and Nzesei, 2015) and no correlation (Gappi, 2013) with learning styles. Dimensions of home environment like control, reward, protectiveness, social isolation and conformity are significantly positively correlated with academic achievement. (Mimrot, 2016). Students at secondary school level with respect to differential ordinal positions at birth and differently sized families significantly differ in their academic achievement (Sangtam, 2014).

RESEARCH METHODOLOGY

This study explored the following objectives

- (i) To study science process skills among boys and girls at secondary school level
- (ii) To study academic achievement among boys and girls at secondary school
- (iii) To study correlation between academic achievement and science process skills at secondary school level

HYPOTHESES

Literature review showed mixed finding with respect to the variables under consideration so the null hypotheses were framed for the concerned objectives:

H01: The boys and girl students at secondary school level do not differ significantly with respect to science process skills.

H02: The boys and girl students at secondary school level do not differ significantly with respect to academic achievement.

H03: There is no significant correlation between academic achievement and science process skills at secondary school level.

DELIMITATION

This study had delimitation with respect to the level at which it was conducted that is secondary school level.

METHODOLOGY

RESEARCH DESIGN AND SAMPLE

Descriptive survey research design was used to test the hypotheses. One district in Directorate of Education, Delhi was randomly selected. In the selected district three schools were further selected by random sampling. From these three schools, 170 boys and 166 girls of ninth standard were randomly selected. On this sample standardized tool was administered and their mid-term marks were used as their academic achievement.

VARIABLES

The present study had following variables

- (i) Independent variable: In this study gender was the independent variable. It had two levels : boys and girls.
- (ii) Dependent variable: In this study, science process skills and academic achievement were the dependent variables.
- (3) Intervening variables: At secondary school level fatigue, family background, previous achievement, motivational levels etc. were assumed to be uniformly present amongst the students.

TOOLS

In the present study, following tools were administered for the collection of data

- (i) Test of Science Processes (2012) by K.S. Misra: The scale consists of 18 items in four domains that is (1) ability to draw inferences and exclude variables, (2) design experiment, (3) interpret data and (4) identify supporting data. The test-retest reliability coefficient of this test is 0.783 which is significant at 0.01 level of significance. Predictive and face validity is 0.1913 for girls and 0.3381 for boys respectively. These values stand significant at 0.01 level of significance.
- (ii) Academic achievement: Mid-term examination marks of these students were used to measure their academic achievement. This examination is conducted by the Directorate of Education, Delhi in all Government schools under its jurisdiction.

PROCEDURE

The standardized tool was administered. The skewness of science process skills and academic achievement of boys and girls were calculated. It was 0.271 for science process skills and 0.326 for academic achievement. These skewness values indicate that this sample has moderate skewness and hence parametric tests like t-test and Karl Pearson's product moment coefficient of correlation can be applied for the analysis of data.

DATA ANALYSIS

H01: The boys and girl students at secondary school level do not differ significantly with respect to science process skills.

The table 1 shows that the t value 7.98 is significant at .01 levels of significance and it is in the favor of boy students so the H01 is rejected. This finding does not support the research work of Raj & Devi (2014) and Zeidan & Jayosi (2015) who reported the results in the favor of girl students. But this finding is in consonance with Ongowo (2017) in which the significantly better performance of the boy students on science process skills was reported.

Students	N	Mean	Standard Deviation	Standard Error of Difference between the Means	Difference between the Means	t-value
Boys	170	19.87	7.54	0.73	5.83	7.98 [#]

.01 level of significance* .05 level of significance

Table 1: t-test for science process skills of students at secondary school level

H02: The boys and girl students at secondary school level do not differ significantly with respect to academic achievement.

The table 2 shows that the t value 4.47 is significant at .01 level of significance and it is in the favor of boy students, in comparison to girl students so the H02 is rejected. The finding supports the study by Nadeem & Ahmad (2016). This finding does not support the research work by Mimrot (2016) who reported the similar results in the favor of girl students.

Students	N	Mean	Standard Deviation	Standard Error of Difference between the Means	Difference between the Means	t-value
Boys	170	58.92	15.82	1.52	6.76	4.47 [#]
Girls	166	52.16	11.85			

Table 2: t-test for academic achievement of students at secondary school level

H03: There is no significant correlation between academic achievement and science process skills at secondary school level.

Table 3 shows that the t value 6.08, coefficient of correlation is significant at 0.01 level so H04 is not accepted but is rejected.

r value	t value
0.316	6.08 [#]

Table 3: Coefficient of correlation between the science process skills and academic achievement

RESULTS

This study shows the significantly better mean scores of boy students, in comparison to girl students, with respect to science process skills and academic achievement at secondary school. The study also reports that the dependent variables namely academic achievement and science process skills are positively correlated.

CONCLUSION

There may be some plausible reasons for the above findings like the quality teaching practices that motivate the students to think, reflect and probe the processes and phenomena. Sincere efforts by the resourceful teachers encourage the students to be methodological. Organized study habits with focus on deriving meaningfulness and comprehension might enabled them to score well in academic subjects. As implications for teachers it is suggested that they may arrange the teaching-learning situations in such a manner that requires the students to think rather than retrieve. Science as a discipline should be taught by observations and experimentation so that the students learn its nature and hence develop a spirit for learning science. For the students it is suggested that they may be required to ask themselves what, why and how pertaining to any given aspect under consideration. They may undergo discussion or deliberation among themselves also to derive some logical conclusion. Parents at home may have a keen eye on the habits, life style of their wards that is the student may be motivated to be organized and systematic in approach towards day to day matter. Tendency of being haphazard, random, guessing etc. among the students should be minimized.

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A REVIEW ON BIOTECHNOLOGICAL ASPECTS OF CHITINASE PRODUCTION

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Abstract

Chitin is the second most abundant polysaccharide on earth. Various organisms contain chitin in their structural components like exoskeletons of insects, cell wall of fungi and in internal structures of other vertebrates. Therefore, a large amount of chitin waste is deposited in environment. Chitin is degraded by hydrolytic action of chitinase enzyme into its monomers. Several microbes produce chitinase that decomposes chitinous wastes. Thus, chitinases play a vital role for chitin waste management and hence are in demand. Researchers are looking for efficient microbes and optimal chitinase production. Although there are, many investigations have been done previously, for improving fold purification and kinetic aspects of chitinase activity but reports on production of enzyme are very less. This review focuses on the different methods of production process and their impact on chitinase production.

Keywords: Chitin, chitinase, fed-batch, SMF, SSF

Introduction

Chitin is a natural biopolymer, which is second most abundant on earth after cellulose (Wang et al., 2015). It is made up of N-acetyl-D-glucosamine (GlcNAc) monomer units by β -(1,4) linkage (Tran et al., 2018). It is widely distributed in various organisms such as in arthropods, fungi, molluscs, crustaceans, nematodes etc. Chitin is degraded by physical, chemical and enzymatic methods. Chitin hydrolysis by enzyme is the most convenient method in terms of eco-friendly and economically. Chitinases are hydrolysing enzymes (glycoside hydrolases) that decompose chitin by breaking β -1,4 linkages. Chitinase has a wide range of application due to their essential role in degradation of chitin (Shaikh et al., 2018).

Various fermentation techniques viz. solid-state fermentation, continuous fermentation, submerged fermentation and biphasic cell system etc are used for the production of chitinase. External chitin induces the expression of extracellular chitinases (Dahiya et al., 2006). Chitinase-producing microorganisms use chitin as a potential source of carbon 'C' and nitrogen 'N'. According to this view, chitin from shrimp or crab wastes could be utilized in production media for chitinase. Several physical and chemical changes greatly affect the chitinase production (Das et al., 2016). Presence of certain chemicals like potassium dihydrogen phosphate (KH₂PO₄) and magnesium sulphate (MgSO₄·7H₂O) in media components has important effects on the chitinase production (Ahmad et al., 2010). However, few specific sugar molecules and

organic supplements show contradicting effect on production of chitinase in various organisms. For example, yeast extract shows adverse effect on enzyme production from *Stenotrophomonas malophilia*, while in *Trichoderma harzianum*, it shows increase in production (Nampoothiri et al., 2004). Dahiya et al. (2005) reported that for *Enterobacter* sp., glucose enhances the production of chitinase when mixed in media with chitin, whereas previously Miyashita et al. (1991) reported antagonistic effect of glucose on production of chitinase from *Streptomyces lividans*. Apart from this, various agricultural wastes like wheat bran, rice bran were used as nutrient supplements in the media (Hamid et al., 2012). Dahiya et al. (2006) reported that in *Bacillus* sp., supplement of various amino acids such as tyrosin, tryptophan, arginine and glutamine in production media increased the chitinase production. For the production of chitinase not only chemical parameters but few physical parameters viz. size of inoculum, pH of medium, incubation time, temperature and aeration play an important role (Das et al., 2016). For the improved understanding of the fermentation process, analysis on different aspects for the production of chitinase will be beneficial.

Submerged Fermentation (SMF)

The first essential step for chitinase production is the selection of cultivation process. In many cases, extracellular chitinases are produced at very low concentration in media. In large volume of media, managing such low concentration of enzyme is an issue, which further makes purification procedure difficult (Stoykov et al., 2015). Submerged fermentation technique is gaining advantages over liquid culture due to its certain features like enhanced mass transfer, well-controlled process parameters and increase in oxygen delivery system etc. Apart from this, development of co-immobilization increases the production of chitinase. In previous studies, for the production of chitinase from *Micromonospora chalybeata*, co-immobilization of the microbial cells and chitin was done using calcium alginate. In this study, chitinase was independently produced by co-immobilized cells and free cells in a production media containing 2% chitin. This co-immobilization is beneficial in enhancing production of chitinase by 0.3 U as reported previously by O'Riordan et al. in 1989. Different microbial strains analysed for production of chitinase by submerged fermentation are given in table 1.

Table 1: Chitinase production by SMF from various microbial strains (Das et. al., 2016).

Microbial strain	Natural habitat	pH	Temp. (°C)	Enzyme activity (U)	Substrate used	References
<i>Vibrio alginolyticus</i>	Terrestrial	7.0	37	5.8	Squid chitin	Ohishi et. al., 1996
<i>Monascus purpureus</i>	Terrestrial	7.0	25	191	Shrimp and Crab shell powder	Wang et. al., 2002
<i>Trichoderma harzianum</i>	Terrestrial	5.5	30	14.7	Chitin	Sandhya et. al., 2004
<i>Aeromonas</i> sp.	Marine	5.0	40	1.1	Swollen chitin	Kuk et. al., 2005
<i>Trichotheicum roseum</i>	Terrestrial	6.0	28	0.78	Crab shell chitin	Li et. al., 2004
<i>Aspergillus fumigatus</i>	Terrestrial	7.0	37	5.86	Colloidal chitosan	Jung et. al., 2006
<i>Aspergillus terreus</i>	Terrestrial	6.0	30	4.31	Fish scale waste	Ghanem et. al., 2010
<i>Plectosphaerella</i> sp.	Marine	7.0	10	0.095	Colloidal chitin	Velmurugan et. al., 2011
<i>Trichoderma aureoviridae</i>	Terrestrial	4.7	28	0.036	Colloidal chitin	Agrawal and Kotasthane, 2012
<i>Aspergillus terreus</i>	Marine	6.0	30	4.7	Shrimp waste	Krishnaveni and Ragunathan, 2014

Apart from the natural chitinase production by microbes, few statistical methods are also selected for optimization of production media components and increase in production of chitinase. Validation of the design expert prediction tool to increase enzyme production in *Stenotrophomonas maltophilia* was reported earlier (Ahmad et. al., 2010). Various studies on enhancement in chitinase production by utilizing statistical methodology optimization are given in table 2.

Table 2: Various statistical optimization methods used for enhancement of chitinase production (Das et. al., 2016).

Microbial strain	Natural habitat	Statistical method	Enhancement in chitinase production	References
<i>Alcaligenes xylosoxidans</i>	Marine	Plackett-Burman design and Box-Behnken response surface methodology	2.42-fold	Vaidya et. al., 2003
<i>Streptomyces</i> sp. NK 1057, NK528 and NK951	Terrestrial	Response surface methodology and Numerical optimization	29%, 9.3% and 28%	Nawani and Kapadnis, 2005
<i>Pantoea dispersa</i>	Marine	Plackett-Burman design	4.21-fold	GoheI et. al., 2006
<i>Streptomyces</i> sp. Dal 1	Marine	Plackett-Burman design and Box-Behnken response surface methodology	39.2-fold	Han et. al., 2008

Solid-State Fermentation (SSF)

Application of matrix or solid support during growth of microbial cells and metabolites production is known as solid-state fermentation (SSF). It is generally used in various sectors for microbial enzyme production particularly for fungal chitinase production. Karthik et. al. (2014) in his study, reported that SSF involves several disadvantages, which includes unchecked process parameters for regulating temperature, pH, culture purity, sterilization of substrate and the process length but it is beneficial over the submerged

fermentation due to use of cheap matrix and its easy handling. The use of natural chitin (insoluble and solid) as substrate for solid-state fermentation is beneficial for the production of chitinase. It is reported in several studies that various organism produce chitinase by SSF (table 3).

Table 3: Production of chitinase in different microbes by SSF (Das et. al., 2016).

Microbial strain	Natural habitat	pH	Temp. (°C)	Enzyme activity (U)	Substrate used	References
<i>Beauveria bassiana</i>	Marine	9.5	27	248	Prawn waste	Suresh and Chandrasekaran, 1998
<i>Trichoderma harzianum</i>	Terrestrial	4.5	30	3.14	Wheat bran and colloidal chitin	Nampoothiri et. al., 2004
<i>Enterobacter</i> sp.	Terrestrial	8.0	30	1475	Wheat bran and flake chitin	Dahiya et. al., 2005
<i>Verticillium lecanii</i>	Terrestrial	6.0	25	1674	Shrimp waste silage and sugarcane baggase	Matsumoto et. al., 2004
<i>Fusarium oxysporum</i>	Terrestrial	6.0	30	23.6	Wheat bran and flake chitin	Gkargkas et. al., 2004
<i>Penicillium aculeatum</i>	Terrestrial	5.0	30	12.53	Wheat bran and flake chitin	Binod et. al., 2007
<i>Penicillium monoverticillium</i>	Terrestrial	8.6	32	311.84	Wheat bran and shrimp shell chitin waste	Suresh et. al., 2011
<i>Oerskovia xanthineolytica</i>	Terrestrial	7.5	45	148	Wheat bran and colloidal chitin	Waghmare et. al., 2011

Fed-Batch Fermentation

It is also known as semi batch culture, in which substrate or nutrient are provided to the fermenter according to the needed quantity. Therefore, fed-substrate amount can be regulated easily (Yamane and Shimizu, 2005). In earlier study, fed-batch fermentation was used for N-acetyl-D-glucosamine production where *Serratia marcescens* QMB1466 was used for chitinase expression (Kim et. al., 1998). In this study, bacterial culture was grown for a week in 10 L bioreactor by utilizing chitinaceous waste in production media. The pH and temperature were maintained at 8.5 and 30°C respectively with feeding time of 3 hours. It is also reported in a study that, chitinase production in a mix culture of *Vibrio alginolyticus* and *Vibrio harveyi*, fed-batch fermentation was used where a bioreactor with 10 L capacity, maintaining the daily supplements of dissolved oxygen (DO) 20% at 30°C, colloidal chitin 2% and agitation speed of 150-rpm. It enhanced the enzyme activity with three times, therefore, it is known to be efficient process for the production of chitinase (Rao et. al., 2013; Das et. al., 2016). Continuous Process

It is an open system, where raw material, auxillary materials and energy are fed as input whereas the product obtained after fermentation are removed simultaneously from the system with constant rate. Here the exponential growth rate of the microbes is maintained in the fermenter for prolonged time period by addition of fresh media at regular intervals. Thus in continuous process, fermentation never stops in between (Das et. al., 2016). Various analyses were

done by researchers for the production of chitinase using continuous process. Fenice et. al., (1998) reported chitinase production by using this process from immobilized *Penicillium janthinellum* P9. In this study for immobilization of cells, chemically modified macroporous cellulose and polyurethane sponge were used as matrix, that modified cellulose is revealed to be more suitable carrier as there is very less amount of cell leakage occurs in it. When it is compared with free cell-based process, production of chitinase is much more in cell immobilized continuous process, with continuous growth in biomass. This process produces more chitinase as compared to repeated batch culture. The amount of chitinase produced was found to be 450 U/L, which is more than the amount of chitinase from repeated batch culture (338 U/L) (Das et. al., 2016). Kao et. al. (2007) reported a membrane based fermentation process for continuous chitinase production where *Paenibacillus* sp. was used.

Biphasic Cell System

Chen and Lee (1995) developed a PEG/dextran aqueous two-phase system (ATPS) for increasing the production of chitinase by *Serratia marcescens*. Here, the production media consist of PEG (2%) and dextran (5%) ATPS, while colloidal chitin is utilized as inducer for production. A reference system (polymer free) is used for the comparison of fermentation results. It is observed that, increase in chitinase activity for dextran solution, PEG solution and ATPS is 2.5%, 1.9% and 3.1% respectively.

Conclusion and Future Prospective

In recent years, various significant studies were done on chitinase. The future of chitinases depends on the development of methods for their purification and production that will reduce the cost and make them more accessible for further use. Immobilizing microbial cells for continuous processes can reduce the cost of enzyme production. For bacterial culture, submerged fermentation produces more chitinase while for fungal strains; solid-state fermentation method is best suited for the production of chitinase. The present review aims to show various production process of chitinase that will emphasize in some critical key steps for scaling up the production at industrial level. Additionally, studies on large-scale chitinase production is inadequate. Detail analysis on designing of bioreactor, kinetic studies of fermentation, impact of reactor parameters like aeration, agitation is also needed for chitinase production at large scale. This investigation may be beneficial for future analysis of chitinase production.

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MASCULINITY CULTURE IN CAMBODIA'S BUSINESS: A MIXED-METHOD RESEARCH IN BATTAMBANG

Rachaya Indanon,

ABSTRACT

Masculinity is an outstanding culture in several Asian countries including Cambodia. This paper aims to explore how to use a mixed-method methodology to study the influence of Masculinity in Cambodian business. Sample groups consisted of 62 manufacturing, commercial, and service businesses in Battambang, Cambodia. The research uses T-test, F-test, and Multiple Regression to analyze the quantitative data and uses content analysis to analyze interviewed data. This study faces a difficulty to accomplish a target number to fulfill a quantitative method. However, the qualitative method supports the research to obtain valuable data that reveals the influence of Masculinity in Cambodia's business operation.

KEYWORDS: (3-5 Keywords)

Masculinity: Possession of the qualities traditionally associated with men

Culture: The arts and other manifestations of human intellectual achievement regarded collectively

INTRODUCTION

Battambang has a unique characteristic evident in the unequal revenue among its populations. Groups of the monarch, bureaucratic, and red Cambodian receive high revenue from agricultural products and agricultural land renting. In contrast, other people have low income from agricultural career and labor. Battambang is a small province of 1 million people. However, Battambang is attractive to Thai investors because Cambodians appreciate the quality of Thai products. Furthermore, Thailand and Cambodia share both land borders and close relationship. These have enhanced Thailand's comparative advantage to other countries in term of product image and connected area.

It is important for foreigners to learn how to do business with people in Battambang. Mainly, Thais as Thailand has a comparative competitive advantage in term of product image and land borders compared to other countries in investment and trade in Cambodia. To do business with Cambodian in Battambang, foreigners need to learn about Cambodian's culture. Understanding and respecting cultural differences will lead to successful foreign business in Cambodia.

Therefore, this research aims to do a cultural study in Battambang using four cultural dimensions of Hofstede's theory. The research examines if the cultural dimension, Masculinity, influences Cambodian decision making in business operations. Besides, since most businesses in

Battambang are SMEs, this research uses SMEs in Battambang as the sample.

This paper aims to explore how to use a mixed-method methodology in studying the influence of Masculinity in Cambodian business. While the quantitative method is used to collect data that show the degree of Masculinity in Cambodia and influence of Masculinity to Cambodian decision making in business operations, the qualitative approach focuses on collecting data aimed at determining if Masculinity influences Cambodian decision making in business operations. After this section, this paper is organized into five parts as follows: Section two shows the study objectives, Section three reviews the literature on Hofstede's Study and previous research. Section four reveals the methodology. Section five discusses the methods and prior studies. Section six presents a conclusion of this paper.

OBJECTIVES

This paper aims to explore how to use a mixed-method methodology in studying the influence of Masculinity in Cambodian business. Specifically, it will;

1. Explore how to collect quantitative data to study the degree of Hofstede's four cultural dimensions of SMEs in Battambang Province: Power Distance, Individualism vs. Collectivism, Uncertainty Avoidance, and Masculinity vs. Femininity.
2. Reveal how to collect qualitative data to study if the Battambang SMEs' Masculinity influence to decision making in business operations.
3. Suggest how to deal with obstacles in collecting data in Battambang, Cambodia.

LITERATURE REVIEW

1. Theory and concept : Theories and concepts related to this research are International Business, Management, and Hofstede's Cultural Dimensions.

International business

International business is business transactions across borders. There are two forms of international business: international trade and foreign investment. International business is also classified into several types: exporting, licensing, franchising, joint venture, wholly-own subsidiary, and management contract. Several factors influence international business in international environments such as political, economics, technology, cultures, currency system, and ecosystems. Culture is one of the critical factors in doing international business successfully.

Management

Management is a process of operation for an organization's success by using Man, Money, Materials, and Machines. Management process consists of planning, organizing (structuring and staffing), directing, and evaluation. Efficient management should be an MBO, Management by objectives. All level of an organization participates this MBO management.

Hofstede's Cultural Dimensions

Geert Hofstede originates Hofstede's Cultural Dimensions Theory in 1983 (Hofstede, G. Taylor & Francis. 1983). The theory explains the effects of a society's culture on the values and behavior of its members. Hofstede used his Value Survey Module (VSM) to capture cultural dimension and show how different cultures in different countries affect the workplace. His study classified cultures into four dimensions: Power Distance, Uncertainty Avoidance, Individual/Collectivism, and Femininity/Masculinity.

Power Distance is the extent to which the less powerful people of a society accept and expect that power is distributed unequally.

Uncertainty Avoidance is the extent to which people in a society embrace or avert an event of something unexpected.

Individualism/Collectivism is the degree to which people in a society are integrated into groups. Individualism is a society that people have loose ties to their group. In contrast, Collectivism is a society that people have tied themselves into in-group.

Masculinity/Femininity Masculinity is a preference in society for achievement, heroism, assertiveness, and material rewards for success. This kind of society provides values to men over women. In Femininity society, women share a humble and caring view equally with men and women are more respectful in this society. Males usually remain dominant in political and work settings in those two extremes, however, it is their behavior that is either more masculine or feminine (Hofstede, 1983; Wikipedia. 2018.).

Later, Hofstede and Bond (1987) conducted an independent study in Hong Kong and added a fifth dimension, a long-term orientation/short-term orientation. The long-term direction is an attitude toward the future that looks for getting rewards for life. On the other hand, short-term is an attitude on past and present, and, focuses on conservative norms and assigned duty. In 2007, Minkov proposed a sixth dimension call indulgence versus self-restraint (Bergiel, Bergiel, Upson, 2009). Indulgence is a social value that allows people to seek their happiness and want openly. In contrast, Restraint is a society that people should control their want by creating conservative and strict rules for their behavior. Hofstede released the most recent Values Survey Module in 2008 (VSM 2008) to survey five cultural dimensions (Bergiel, Bergiel, Upson, 2009). In

2010, Hofstede added a sixth dimension, indulgence versus self-restraint to his cultural dimension (Hofstede, 2011).

Hofstede's research is useful for many areas and establishes some research in several fields such as international management, cross-cultural psychology, cross-cultural communication, and education. However, caution for Hofstede's implication is that the numbers in his research number represent an average number of each country (Skywalker, 2008). The numbers do not apply to all of the population of that country. Besides, Asian people answered Hofstede's questionnaires as a representative of their group, but, European and American people answered the questionnaires as their individual feeling. Therefore, several types of research were done to prove Hofstede's study.

Previous research studied Hofstede's concept either using four cultural dimensions or six cultural dimensions. Wu's research is Hofstede's Cultural Dimension 30 years later: A study of Taiwan and the United States by using 5 cultural dimensions (Wu,2006). Wu replaced Hofstede's dimension measurement by Dorfman and Howell's since it was more reliable in his opinion. He also used factor analysis to analyze the data. The results of Wu's study indicated that work-related cultural values in a specific culture are not static and can be changed over time. Bergiels and Upson also study Revisiting Hofstede's Dimensions:

Examining the Cultural Convergence of the United States and Japan (Bergiel, Bergiel, and Upson, 2009). They used VSM 2008 of Hofstede to examine six Cultural Dimensions. Their study revealed that some cultural values evolve and change. Furthermore, in the study "Hofstede - Culturally questionable?". Jones had a profound analysis of Hofstede's work and suggested that more research is needed to capture the shifting cultural maps which are influenced by globalization and technology (Jones, 2007). Chatuthai conducted a comparative study of six cultural dimensions in Thailand and Asia-Pacific countries. She used Quantitative Method by applied using Hofstede's VSM to do questionnaires survey and used One-Way ANOVA, Post Hoc Analysis of LSD, and Pearson's Correlation to analyze research data. Chatuthai found that Japan has the highest score of Musculinity (Chatuthai, 2015). Recently, Bissessar studied Hofstede's 5 cultural dimensions in the research "An Application of Hofstede's Cultural Dimension among Female Educational Leaders" using a qualitative method (Bissessar, 2018). The study demonstrated that in this era of advanced technology, global sharing, industrialization and economic development, national and global cultures are becoming more collective. This study found that each cultural dimension is linked to different leadership styles. Particularly, Masculinity is linked to people versus, task-oriented leadership. However, interestingly, Brickell studied "The stubborn Stain on Development: Gendered Meanings of Housework (Non) - Participation in Cambodia" to reflect high Masculinity in Cambodia. Brickell did not use

Hofstede's cultural dimensions in the study, but he conducted the study using an interview with his questions (Brickell, 2012).

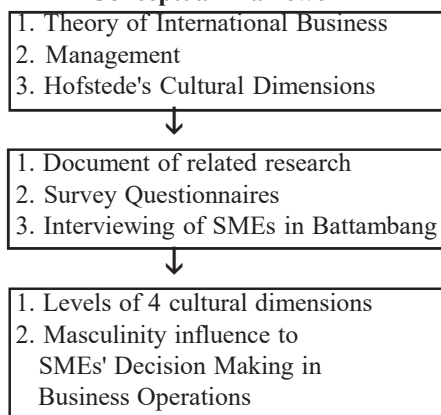
Similarly, this research examines culture dimension in a specific area of Cambodia, Battambang, focusing in Masculinity dimension. According to the initial interview of some Cambodians, Cambodian is the high power distance society. However, decision making in business is varied in Battambang. Masculinity in business decision making is questioned.

Also, this paper aims to explore how to use a mixed-method methodology to study the influence of Masculinity in Cambodian business. It also demonstrates obstacles in doing mixed-method research in Battambang, Cambodia, and suggestions to deal with them.

METHODOLOGY

This research is applied research in the field of International Business. The research's objectives are to study the degree of Hofstede's four cultural dimensions of SMEs in Battambang Province: Power Distance, Individualism vs. Collectivism, Uncertainty Avoidance, Masculinity vs. Femininity, and to study if Masculinity culture influence decision making in Battambang SMEs' business operations. The research uses a mixed method of both quantitative and qualitative approaches. The quantitative method uses questionnaires in collecting data and uses analyzed statistics as T-test, F-test, and regression analysis. The qualitative method uses semi-structured questions to interview and use content analysis to analyze the data. Details of the research methodology are described below.

Conceptual Framework



Research Assumptions

1. Assumption 1: As an Asian country, Cambodia has a high level of Power Distance, high level of Collectivism, low level of Uncertainty Avoidance, and high level of Masculinity."
2. Assumption 2: Cambodia's Masculinity has an influence on decision making in business operations.

Data

Data of this research is classified into two types: primary data and secondary data. First, primary data is the data that the researcher collects them. In this research, the researcher collects primary data from questionnaires and interview. Questionnaires data and interview data are obtained from SMEs in Battambang. Questions in the surveys and interview questions are similar. The questions cover the level of four cultural dimensions and the influence of masculinity on decision making on business operations. Second, secondary data is data from secondary sources such as textbook, research, research article, to name but a few. These data are acquired from the library and the Internet. The data is about the theory of Hofstede's 4 Cultural Dimensions, International business, management, and related research.

Samples

The population of this study is SMEs in Battambang, Cambodia. SMEs samples are in 3 business areas: Manufacturing, Commercial, and Services. This research aims to collect data from these business groups according to the fact that Battambang's SMEs are composed of those three business areas. Samples of questionnaires data are obtained from SMEs in Battambang for 90 persons. Similarly, examples of interview data are collected from SMEs in Battambang for ten persons.

Sample Selection

Sample selection technique used in this research is the purposive random sampling. First, the researcher identifies the samples if they are in required business areas: Manufacturing, Commercial, and Services. Then, the researcher continues collecting data by using random sampling.

Research Tools

Research Tools of this research are questionnaires and interview questions as the following.

Questionnaires are composed of three parts:

1. Personal information: gender, age, education, business type, and years of business operation
2. Opinion toward Hofstede's Cultural Dimensions in Cambodia: Level of 4 Cultural Dimensions in Cambodia
3. Decision making in business operations

Interview questions are as the following.

1. Personal information: Name, Gender, Age, Education, Career, Operating time
2. Cultural Dimensions Levels in your opinion (High, Medium, Low), Why?
3. Who make decision in your business operations, why?
4. Do you think that Masculinity influences your decision making in business operations? Why?
5. Other suggestions

Likert Scale

This research uses a Likert Scale as a measurement of the level of four Cultural Dimensions in Cambodia and

of a degree of sample opinion if Masculinity influence to decision making in business operation.

Meaning of Score level of Opinion Of SMEs

Score level 1.00 - 1.80 SMEs totally disagree

Score level 1.81 - 2.60 SMEs disagree

Score level 2.61 - 3.40 SMEs rather to disagree

Score level 3.41 - 4.20 SMEs agree

Score level 4.21 - 5.00 SMEs totally agree

Meaning of Score Level of 4 Cultural Dimensions in Cambodia

Score level 1.00 - 1.80 very low

Score level 1.81 - 2.60 low

Score level 2.61 - 3.40 medium

Score level 3.41 - 4.20 high

Score level 4.21 - 5.00 very high

Developing Questionnaires and Interview Questions

The researcher studied questionnaires of Sillapakorn University and Hofstede's surveys. Then, the researcher applies knowledge from studying textbooks and previous researches about Hofstede's theory, International business, management, and business strategy, to build the questionnaires and interview questions.

Data Collecting

In researching Battambang, Cambodia, the researcher had a good connection with Dean of Business Administration and Tourism Faculty of Battambang University and received lovely support from him. The Dean recruited a group of excellent students to help the researcher collecting data in Battambang. These Cambodian students were assigned to work with Thai students in obtaining data. Before the researcher and her team started collecting data, the researcher had a meeting with all Thai and Cambodian students in her team. The researcher explained the meaning of questionnaires as well as showing them how to work efficiently on collecting data. Furthermore, the researcher paid attention to getting questions from students about their duties and giving them feedback to make sure that students would work on their tasks properly.

The researcher collected questionnaires data by using 10 Thai students working along with Cambodian students of Battambang University. The students were separated into five groups, and each group has one Cambodian student as a companion and translator. The students collected data from SMEs in Battambang in 3 business areas: Manufacturing, Commercial, and Services. All students traveled by motorbikes to collect data.

The students could find commercial samples easily in the Battambang city. Nevertheless, there were obstacles for students in collecting questionnaires data from service and manufacturing samples. Service SMEs were rarely to found. Only a few numbers of service SMEs could fit the students' targets. Besides, some manufacturing SMEs are located too far from Battambang city, and, each of them is far apart from the other. The students rode their motorbikes

to collect data in many remote areas of the Battambang's urban area. The students had difficulties in looking for SMEs and also could not travel to some remote areas. Therefore, the students could not achieve the sample target as planned in the research. They have limited time in collecting data and did not have enough human resources to research remote areas. Ultimately, the students collected 62 samples from sample target of 90. Even though the students could not meet the original data target, however, the outcome quality is good. After the data processing, results of the questionnaires research are consistent to the interview results.

The researcher recruited a student who was excellent in English. So that, she was able to understand the researcher's objectives in collecting data and the content of interview questions.

We walked along the commercial buildings and the local markets in the Battambang city to collect data. All Cambodians were friendly, and mainly they liked all kinds of Thai such as Thai products, Thai entertainments, and Thai people. They were willing to answer our questions so that the data collecting operated quite well.

Cambodian samples were both women and men. Women who were responsible for the business or answered our questions look confident in themselves. If we found both husband and wife in the shop/business together, it was fascinating that most husbands let their wives do an interview duty. This implied that they were permissive to their wives for the decision making in business operations. Also, most women expressed their opinion confidently in the look of the business person, and some of them have a leader look clearly.

The researcher found that all Cambodian SME businessmen spoke Cambodian language. They could not speak English. One Cambodian businessman could speak a few Thai words, but he could not speak fluent Thai language for a complete conversation. Thus, the researcher needed to work with the translator at all-times time. We worked along together very well, and the outcome is outstanding. Finally, the researchers interviewed 12 SME samples. 11 SME samples were Cambodian SMEs, and one sample was a foreign observer. These samples covered manufacturing; services; and commercials SMEs in Battambang; the researcher obtained enough data that confirmed the results and consistent with each other data in the interviewed samples.

Data Analysis

This research uses T-test and F-test to examine if there are any different answers among those samples which have different gender, age, education, business type, and years of business operation. The research also uses Multiple Regression as a statistics to analyze questionnaires data for the finding of "Influence of Cambodians' Masculinity to Decision Making in Business Operations." Besides, a content

analysis is used to analyze interviewed data of the business owners in Battambang.

Triangle Analysis in this study analyzes the research data in the following categories.

1. **Who:** Cambodian SMEs who show levels of 4 Cultural Dimensions are Cambodian SMEs owners that work in 3 business sections: commercial, services, and manufacturing.
2. **Where:** Cambodian SMEs in Battambang show levels of 4 Cultural Dimensions
3. **When:** Cambodian SMEs in Battambang show levels of 4 Cultural Dimensions from questionnaires and interview are collect in the year 2014. The research data is collected in the same period that is in May 2014.

DISCUSSION

This research is similar to other research that use Hofstede's concept and study as a guideline in studying cultural values of Cambodian SMEs. The concept of Four Cultural Dimensions is the central knowledge using in this paper.

Nevertheless, this research uses different survey method from some research. Some previous research used "Value Survey Model: VSM" of Hofstede or applied VSM in collecting quantitative data, cultural value. However, this research develops questionnaires to collect cultural value in Cambodians' opinion and measured by Likert Scales. Therefore, the level of 4 cultural dimensions in this study presents the cultural value for Cambodia itself. The value level is not compatible with other research that used VSM tool. The positive side of using questionnaires developed by the researcher is to obtain the level of cultural value directly from Cambodians' opinion.

Another outstanding difference is that this research used mixed-method in collecting data. Most research that studies Hofstede's cultural dimensions used a quantitative method only. They focus on using VSM to represent cultural values according to the original investigation of Hofstede. Finally, some research studied six cultural dimensions, but this study concentrates on four cultural dimensions to reduce the complication of theory content for samples, Cambodian SMEs. Many of them are people in local opened markets. Moreover, this research needs to use Cambodian students as translators, even though all of them are excellent students, nevertheless, the researcher would like to avoid any misleading as much as possible.

CONCLUSION

This research uses a mixed method to study the degree of Masculinity in Cambodia and to study if Masculinity influence to decision making business operations in Battambang, Cambodia. According to the research plan, the researcher intended to collect questionnaires data from 90 SME samples in 3 business areas: manufacturing, commercial, and services, and to

interviewed 10 SME business owners in Battambang, Cambodia. In reality, the researcher collected questionnaires data from 62 SME samples and interviewed 12 SME business owners in Battambang, Cambodia.

Though the actual quantitative samples are less than the original research target, however, the data processing has no trouble. Also, analysis of the interviewed data is useful since the researcher can get complete data to do a content analysis. Notably, the interview data is valuable data to answer the research questions. Moreover, the results of the quantitative research are consistent with the qualitative research's findings. In this case, qualitative research supports quantitative analysis and enhances the whole study to be stronger and more reliable than the quantitative research itself.

Limitation of This study

This research has some limitations regarding time and resources in researching in Cambodia. The researcher has a limit time to live and to do research in Battambang, Cambodia. The researcher has duties of research, teaching, and student exchange within one month. Therefore, the research spends a short period in the research field. Another obstacle is the limited resources of budget and human in collecting data. Language is a significant obstacle to collect data so that we need more budget for more people in collecting data in a short period.

Suggestion

1. Mixed method is a useful research methodology, particularly for international research. Doing in foreign countries faces many obstacles, such as different cultures, government regulations, imperfect market, and so on. Therefore, we need reliable tools to research to supplement each other of the research methods to get complete data for research. The qualitative is an excellent method to obtain data that explains the reason behind the number in the quantitative approach. It also improves the research results caused by the flaws of the quantitative method.
2. Future research might use mixed-method of VSM and interview to collect data. The study would be more general than the research results of cultural values would be compared to other research.
3. International researchers need support from local people in collecting data. Researchers need to have a good research plan and teamwork. Local people in the research team should be in the same educational field to make sure that researchers would get useful data and no misunderstanding. Also, training a research team for collecting data is very important. Researchers need to learn from local people about natures and obstacles of collecting data in the target country, so that, researchers can prepare good plans for training the research team and collecting data.

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INCOME INEQUALITY INDEX OF THAILAND

*Komol Prachkatanyu

ABSTRACT

The purpose of this study were to investigate the factors determining income inequality in Thailand during 2004-2017; to calculate Income Inequality Index; and to find out the composition of Income Inequality. This was a quantitative research by using the document analysis. Data was statistically analyzed and presented to the relevant entity for their usage. The data analysis was through the calculation of Income Inequality Index (by Shorrocks method) and the investigation of income inequality determinants. The research findings were showed that Thailand had the most inequality in the year 2004 and the inequality had chronologically decreased. The inequality was the least in the year 2017 in comparison to the other years (That's meant it approached the equality in overall). The relationship of variables which explained the income inequality could be analyzed by the multiple regression. The results were shown that the variable of Fertility Rate had the direct relationship with Income Inequality. For Thai Gross Domestic Product, Health Index, and Thai Population Density had the inverse relationship with Income Inequality which was not in accordance with the research hypothesis.

Keywords: Index, Income Inequality, Health, Fertility, Population Density

INTRODUCTION

According to the starting of Thailand economic development, under The 1st National Economic and Social Development Plan (1961-1966) until now where under The 12th National Economic and Social Development Plan (2017-2021) be the cause of Thailand economic growth rate increase rapidly. As foreseen from the Gross Domestic Product (GDP) at the market price increase from value of 6,489,476 million bath in 2004 to 13,672,865 million bath in 2015 and expect to get more increase during this 12th plan. For the average income per capital income increase from 104,710 baht per year to 208,081 baht per year in the same time of the year and expect to get more increase.

The economic development has found out that level of economic growth rate will continually increase and rate of average revenue per capital income increase as well. When consider to income distribution found that inequality of revenue starts to decrease in presently. There is the well-knowns study of index that indicated poverty character and character of income distribution disparity. That is the determination of the level of poverty line, poverty incidence and character of Lorenz Curve and through the Gini-Coefficient.

However, even though there is the tools to rating the level of income inequality as said in previously but there are the restrictions of the data that using in analyze the trend of income distribution and poverty is the information from the research of economic conditions and social from National Statistical Office which the research will happen in every five years cause the income distribution index to be shortage periodically and not continue every year which could be the one of the reason that cause the planning of economic and social development to indicate the inexplicit goal of income distribution. This is cause the result that get from the research not go aligned with the target as much as it should, due to the lack of up to date information that able to use for planning So there is the idea of creating the probabilistic model in order to estimate the income inequality by using the information from different sources such as Ministry of Public Health, Ministry of Interior, Office of The National Economic and Social Development Board and National Statistical Office which collects these information yearly

LITERATURE REVIEW

The factors that effect to income inequality. From the study found the factors that effect to income inequality include income variable, health variable, Fertility Rate variable and density of population variable. Income inequality and health despite health should be the important role of the problem of income and income inequality however the result of the research that can be used to support this relationship is very difficult to find. Majority of the research is the study of income effect and income inequality to health of the population and some part of the results confirmed that income, income inequality and health, these all effect to each other and not the one-way effect from income and income inequality that indicate population health like the results of majority study indicate those the one-way relationship. Waldmann R.J. (1992) study the relationship between income inequality, Infant mortality rate and others factor which compare developing countries and group of world population by using OLS and the result of study consistent to the result of study of Rodgers (1979) which found out that the increasing of income share among group of rich people or the increasing of income inequality cause the increase of infant mortality rate both group of developing countries and group of world population at confidence level of 95%.

Fertilityrate and income inequality. Repetto (1979) have study the effect of income distribution to fertility by using cross sectional information from development

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countries and developing countries total 68 countries analyze by using econometrics the result of study found that the more increase of income inequality is the more increase of fertility as well, this information is harmonize with the found of Rich W. (1973) and Kocher J. (1973) found that fertility rate decreases in the country that the distribution of income, health services and education equality, and harmonize with the study of Mueller and Short (1983) found that income inequality cause the level of fertility rate increase same as the study of Ogawa (1978) Flegg (1979) and Moreland (1984) that conclude as income inequality send significant effect to fertility rate, just Winegarden (1980,1984 and 1985) and Nier Heerink (1994) that found the income inequality will send the opposite effect to the fertility rate.

The expansion of population, effect of income inequality Winegarden (1978) refer to Heerink (1994) have study relationship between income inequality and expansion of population by using simultaneous equation found that decrease of expansion rate of population causes the income distribution more equal (income inequality index).

RESEARCH METHODOLOGY

The study uses quantitative Research together with document analysis from the statistic that was present by the concern section. Through the calculation of income inequality index will use the Sorrock Method with multiple regression analysis.

The main purpose of this research is the study of income inequality by using the yearly information and connect with health factor and population factor in order to explain the trend of change of income inequality of every year. In the search of stated relationship need to select the income inequality index that appropriate economic condition of population.

The selection of using income inequality index is one of the most important topic to study of income inequality. Due to the fact that each index has the different qualification. The study of development of income inequality index will help to be able to select the appropriate index to use in the future. Income inequality index can be divided into many path. In this case the income inequality was divided follow through the concept of Sen (1973) which can be divide in wide range into 2 type which are Positive Measures and Normative Measures which are the measurement that have to use statistic technic to calculate to find the deviation of income distribution that indicate from perfect equality. There are many ways of this measurement and Normative Measures is the method that use opinion (Value Judgement) to estimate social welfare, the most popular index is Lorenze Curve and Gini-Coefficient. There is the close relationship between these two method but the best qualification index for developing countries is Sherrocks Order 2 which present by Sherrocks (1980)

$$I = \frac{1}{2n\mu} \sum_i (y_i - \mu)^2$$

By is the Shorrocks order 2 index y_i is population income i μ is average income n is population number got several satisfy property's that are included, 1. No charge when use the positive constant multiply by population income of everyone or every group (Scale Independence). 2. There's vigilance to income transfer from rich people to poor people more than from average people to poor people (Strong Principle of Transfer). 3. No change to proportionally expanded (Proportionate Growth). The simulation of income inequality and health from the above concepts could be simulated as follow.

$$INDEX = f(GDP, HI, FR, PD)$$

When INDEX = Income Inequality Index

GDP = Gross Domestic Product

HI = Health Index

FR = Fertility Rate

PD = Population Density

For the details of method to measure those variable will be as follows. Income Variable which means Gross Domestic Product variable is population health index (Health Index: HI) will be the index that create from many variables such as mortality rate of mother per live birth rate 100,000 persons, mortality rate of infant age under 1 year per live birth of 100,000 persons. By the determination ranking the lowest rate of variable as 100 and highest rate as zeros and use the result from each variable to find the average rate due to the index that is to measure population health index has different unit so this research will use the indications of score to determine quality of life. Which will conclude as index rate to use for health measures, such as the study of Morris (1979) that determines The Physical Quality of Life Index: PQLI, there are the step as follow.

The creations of Health Index (HI) determines the scoring of linearly scaling as determines measurement scale from 0-100. When 0 represents the worst situation of each variable that mentions earlier in any year during 2004-2005 and 100 represents the best situation. There is always the awareness of direction of those variable relationship by conclude the score that use with each variable to find the average rate of every variable, that is the representative of population health. This method emphasizes weight priority to each variable and each dimension equally. Fertility Rate (Fertility Rate: FR) will conclude number of children born during 1-year time and number of women in reproductive age in the same time by Fertility Rate will calculate from formula below

$$\text{Fertility Rate} = \frac{\text{number of children born in year}}{\text{Number of women in reproductive age in the same time}}$$

Population Density variable (PD = Population Density) mean average rate of population number per Thailand space (square meters) income inequality variable (Income Inequality) will find from formula of Sorrocks Order 2 as follow.

$$INDEX = \frac{1}{2n\mu^2} \sum_i (Y_i - \mu)^2$$

By INDEX = Income Inequality Index which is the measurements of income deviation from population average income. The value from 0 (zero) and increase positivity, if value of INDEX = 0 mean there is totally no difference in income. That is the most equality and if INDEX value is more positive which will mean there is more of inequality.

Y_i = Level of income per year of population i get

U = Population average income

N = Number of Population that use for calculating

In the analysis of the above equation has the hypothesis as follow. The variable that is related in the same direction with income inequality variable is Fertility Rate (FR). The variable that related opposites with Income Inequality variable such as income variable or primary Gross Domestic Product (GDP), Population Health Index variables (HI) and Population Density variable (PD).

Analysis Results

$$INDEX = 1.4444-1.24E-08*GDP - 0.0006*HI + 0.5136*FR - 0.01093PD$$

$$(3.75) **(-3.27) *(-4.98) **(2.71) *(-2.64) *$$

R-squared = 0.881

Adjusted R-squared = 0.849

F-Statistic = 27.741

Durbin-Watson stat. = 2.285

Note ** = Level of signification at

* = Level of signification at

The result from regression equation analysis found that level of income inequality is related with gross domestic product in the opposite direction, related with level of population health in the opposite direction, related with level of fertility rate in the same direction and related with level of population density in the opposite direction. Which majority of variable passed the test at level of signification at 0.05 or at confidence of 95 percent. There is only health variable passed the test as level of signification at 0.01 or confidence at 99 percent by value R2 at 0.881 which is considered as the satisfactory level for the direction of each variable that explain level of equality in the correct direction. From the analysis of result of Durbin-Watsan value found that in primary value that calculated = 2.28 fall into the period that could not be conclude that there is the problem happen (Autocorrelation) or not. So there is the test by using Runs Test found that there is no problem of autocorrelation. From the getting simulation that use to calculate and find elasticity value of rate of change of inequality index per each variable will get the grid as follow.

Grid number 1 show the value of elasticity from inequality index per each variable.

Variable	Elasticity Rate
GDP	-0.2806
HI	-0.0718
FR	1.1569
PD	-3.0504

When consider value of elasticity found that population density variable gets the highest value and negative. Which mean that if increase population density to 1 percent will be able to decrease income inequality by 3.0504 percent. Minority is fertility rate variable equal to positive mean that if able to decrease fertility rate to 1 percent will be able to decrease the income inequality by 1.1569 percent. And Gross Domestic Product value equal to negative mean that if able to increase Gross Domestic Product to 1 percent will be able to decrease income inequality by 0.2806 percent and population health index value equal to negative mean that if able to increase population health index to 1 percent will be able to decrease income inequality by 0.0718 percent.

Conclusion and Benefits

This is the information for operations of both government and private section that concern with the eliminating of poverty problem and income inequality that the income inequality index of population is the tool for estimate level of income inequality of Thailand.

The government able to use the result of research in order to use for planning the decrease of income inequality for population public quality of life

Result Discussion

The result from regression equation analysis found that level of income inequality has a relationship with Gross Domestic Product in the opposite direction. Which match with the study of Kuznet (1955 refer to 1999) that study about change character of income inequality between development countries and developing countries. By the descriptive method found that this cause the level of income inequality of development countries decrease and cause in opposite direction in developing country.

Level of income inequality has the relationship with level of health index in the opposite direction same as the study of Waldmann R.J. (1992) found that income inequality and infant mortality rate has the relationship in the opposite direction.

Level of income inequality has the strong relationship with fertility rate in the same direction. This information harmonizing with the discovery of Rich W. (1973) and Kocher J. (1973) that found condition of fertility rate decrease in the countries that able to spread the income and conform to the study of Mueller and Short (1983) that found income inequality cause the level of fertility situation increase.

Level of income inequality has the relationship with population density in the opposite direction which conform to the found of Winegarden (1987) refer in Heerink (1994) that study relationship between income inequality and expansion of population by using the Simultaneous Equation and the result reveal that decline in the population expansion cause the income distribution more equality.

Guidance

From the calculation of elasticity rate found that population density variable has the higher value which effect

to the income inequality the most in opposite direction. From this result, the supporting to get more population density will help to increase the better sanitary system which support population to get better health and be able to produce more income and finally the income inequality will decrease.

The level of fertility rate variable has the elasticity to level of income inequality subordinate in the same direction. Then should decrease the fertility rate by set the strong campaign of family planning that will be able to decrease level of income inequality.

The Gross Domestic Production variable has the elasticity to level of income inequality in the opposite direction. Which should encourage to increase more investment from both government and private section so it will increase more equality.

The health level variable has the elasticity to level of income inequality in the opposite direction so the supporting of population health is requiring by the suggestion of sanitarian food consuming and encourage the regularly exercise. This could help population has the good health and be able to generate more income which finally cause the decrease of income inequality in Bangkok.

For the person who is interesting to implement the research about the level of income inequality in the future may have to consider level of education variable, duty variable and level of age variable of personal income. Which can be estimate that it should cause the study of income inequality more complete.

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A STUDY OF INDIAN WOMEN : PROJECTED BY MAHADEVI VARMA

Shaheen Parveen

Abstract: This chapter makes an effort to realize the plight of common women in Indian scenario before independence. Mahadevi considers and proposes to throw light on the universal pictures of the typical Indian women in the essays *Shrinkhla ki kadiyan* (Links in the Chain), which are written before independence, and are still relevant today. The study reflects her sensibility as well as internal emotions towards women. Mahadevi ji finds fault with Indian society's treatment of women and tries to explore the different aspect of women's sever condition's. The female consciousness of Mahadevi Verma are projected in these essays. It enunciates how mental & moral development of women only cannot end gender inequality. That is prevalent in society. These essays message of personal awareness, towards personal development of Hindu women regardless their circumstances. It will discuss how she throws light on the social strata of women that differs from age to age in reference to rules, regulation and customs. In these essays Mahadevi is critical about social tradition that grant only two options. The social environment in which men allows women only two roles that of a wife and mother. Secondary the purpose of the work is to find out her feminist vision, her philosophical speculation. Readers observe deep rooted grieve and pain. Because the success of the work is not only confined in her feminist questions but her positive answers are also paving the way to all the women in society.

Key Words: Gender inequality, Social tradition, Universal picture, Female Consciousness, Philosophical Vision.

How consciously the poetess of Allahabad felt state of Indian women:

Unlike man, she does not seek an intoxicant to forget her sorrow [...] because she is able to accept sorrow as life's challenge (Verma, Mahadevi. Links in The Chain 21)

This is the plight of women as projected by Mahadevi Varma in her most recognized work of prose, *Shrinkhla ki kadiyan* (Links in the Chain), a collection of eleven incisive and insightful essays. The female as distinct from the male has, from time immemorial, been considered gentle and delicate in her essays *Links In the Chain* by Varma who wrote around 1930s, a time when the wave of feminism did not gain much popularity. Indian women accursed from birth. This the main concept was lighted on essays written by Chhayavadi poetry Mahadevi Varma. Eleven women's conscious essays written by her trumpet for women's life for thousands of years.

Probably the patriarchal aspect of the society is that the woman has given rope to any rites from any ritual since birth. Women should be of any caste or class. Patriarchy

makes them very difficult in life. Just as if a woman is not working , then more household work will be done. If the woman is not working, then she will be pressurized to earn as much money as possible .Exploitation is here of both women, just their methods are different. Women are never their own agents, but are commodities at the hands of men sustained under patriarchy, as represented in the words of Mahadevi Varma as well when she described the plight of Indian widowed women:

"As long as it was possible to burn her with or without her consent and dispatch her to heaven for the husband's pleasure, the widow was made to commit sati (Varma, Mahadevi. Links in The Chain 14).

She was the first woman to raise the voice and brought out clear picture of true condition of women in Indian scenario. She was very radical in their views. The purpose of education she said for most of the reformers was only to realize women as ideal citizen and an educated wife and mothers. Every kind of problem of denial of education, widowhood, early marriage, female infanticide, purdah, remarriage were all penned by her in the essay *Links in the Chain*. Mahadevi ji describes: the reason behind the innumerable disparities is that the women forget her individual identity and loses her ability to reason" (Varma, Mahadevi. Links in the Chain 8)

By describing the state of the Indian woman in particular, Varma goes on to explain the reason of disparities between both the sexes as:

Normally, a man's personality is shaped in a freer environment through interaction with persons of ability and distinction, while a women's personality is formed under the shadow of tradition and conventions. As a result she can neither experience anything outside her family nor become truly aware of her larger responsibility (Varma, Mahadevi. Links in the Chain 11)

Therefore the other mean through which she made the tough male surrender to herself is her soft femininity which she graced with flowers and fragrant buds in ancient times, as described by Varma in one of her essay, *The Trafficking of Life* in her book. She goes on to describe the sorry plight of women who are faced to become prostitutes, and mentions them as twice cursed in comparison of other Indian women, whom she discuses in length in her book. She mentions that society, along with loathing, feels a compulsive need of these women, as the women at home indulges herself completely in motherhood, and doesn't remain capable of giving anything more than maternal love and affection. The differences in the womankind on the basis of class has also

been discussed by her as her seventh essay spoke of the lowest strata of the society. She pointed out that the woman had no utility other than as a means of the races growth and man's pleasure. It was normal thing in society for men to win women like any object of pleasure.

Mahadevi Varma is a unique thinker of women's consciousness. Very exponentially she wrote in her essay, the plan of society is that if a woman is seen then the modern day conservatist. Women have been fighting in every field by accordance with their own circumstances. Because society always offers a double challenge for girls. Now the question is how long will the woman continue to prove herself. Mahadevi, seeing women's condition in Indian society said that in the society of her life, the life of a common woman is a frequent victim of all the exceptions and religious prejudices.

Varma in whole talks about the realization of their own being /self on the part of the woman, which she has forgotten under the garb of patriarchy from ancient times. In contrast to the patriarchy prevailing in Indian society. According to her in patriarchal society there one has to admit the fact that without woman there is no home, without a home, it is not possible for man to settle anywhere.

Another point Varma raised towards when the women's role changed from a lover to that of a wife and from a wife to that of a mother, then, duty bound towards her, the man realized that her status has exalted to a level where she was no longer a mere playing:

He did bow his head before her motherhood [...] but his inner thirst could not be quenched [...] and he longed for a woman solely for his entertainment and pleasure (Varma, Mahadevi. *The Trafficking of Life* 81)

Thus the need for a women just for fulfilling the insatiable lust of man arises, but these women are never to get any sympathy from the society, essentially patriarchal in nature. Varma puts forth the very consciousness of the male also when she says, "to consider them (prostitutes) as objects of sympathy and evaluate their pitiful state or their supreme sacrifice, would remind the man of his own weakness."

Varma's female consciousness is evident in her description of the Indian women's plight through different chapters dealing with women and war, woman's wifhood, her life in home and beyond, the issue of economic independence, the trafficking of life, and so on. She is founded always worried about the plight of Indian women. Describing about the miserable condition of the low class women she wrote in the following words:

"When the woman who has left home at six in the morning with a child in her arms and a thick charred roti for her meal, returns in the evening at seven, it seems a though to hurt motherhood of the entire universe is letting out a moon through her parched lips." (Varma, Mahadevi. *Links in the Chain*, 19)

Since past Indian women are so cultured or trained or modelled that husband welfare is their own welfare irrespective of his misbehavior or cruelty. Verma appeals she should not blindly surrender to the slavish thought of men according to circumstance, time plays needs one should try to know how to live in this framework. Live and let live is the most important principal to educate, one of her main concerns of Mahadevi. NCERT memorial lecture series discuss:

"According to her, Indian women are presently queens of the empire of ignorance; on the other hand the modern education currently being imparted to them takes away some good qualities from many young women." (21)

Women have always led life of muteless, shadowed beings, and no one ever in the history "named those who welded the links of the chain that clasps every fiber of their beings". Women neither knows nor are made to know about their rights as free citizens, but are kept in veils of being someone else's possession from ancient times, according to what is projected of her in Varma's book. She knows not the art of living, which is desirous for a purposeful life in this world. Varma propounds that because woman does not know the art of living,

Mahadevi had studied the contribution of great women scholars of ancient India and emphasized on learning from them. Through her essays Mahadevi suggests that these women can fully live their lives, if they were given some economics independence, opportunities, and a specific place. Thus, can fulfil the purpose of life

At one time, the Indian women may have been a source of the country's dignity, but today she is just a source of its mockery. If society fails to understand her plight, her discontentment at her condition will force her to do that which will destroy its remaining dignity. (Varma, Mahadevi. *The Hindu Women's Wife hood*. p 79)

By addressing all the women how touchingly she messaged in her essays that if we specify our goal along with sublime duty, our rigid boundaries may transform into generous goal along by feminine dignity. She says:

To what extent the present essays will inspire the reader to reflect further is impossible for me to say. But if the blurred outline of the Indian women's frightful conditions becomes somewhat clear in the light of these essays, compelling them will not then have been in vain.

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A REVIEW ON VARIOUS ASPECTS OF SOYBEAN AND SOYBEAN MOSAIC VIRUS

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Abstract

Soybean (*Glycine max*) is the major source of proteins and oils worldwide and is known as 'Golden Bean' or 'Miracle Crop'. It is the member of Fabaceae family of legumes. There are various pathogens, which attack soybean crop and reduce its yield and quality. Soybean Mosaic is the most common disease in soybean caused by Soybean Mosaic Virus (SMV). It belongs to the genus potyvirus and potyviridae family affecting agriculturally important plants. It mainly infects two plant species of a single genus *G. max* and *G. soja* and is transmitted by seeds and aphids. SMV is distributed in all soybean-growing areas of the world. Various disease resistance genes are present in soybean crop that provide resistance against SMV. Three important genes providing SMV resistance are identified as Rsv1, Rsv3 and Rsv4. Various disease symptoms of SMV in soybean mainly depend on strain type, age of plants, genotype of the host and its habitat. To control the disease and increase crop yield, SMV resistant cultivars must be developed using genetic modification. The growth in agricultural production is essential for the increasing human population. To meet this challenge, advance statistical and genetic methods of analysis have been used for identification of new resistance genes in soybean. This review mainly aims at the SMV infection and its resistance in soybean.

Keywords: Diseases, Pathogens, Resistance, SMV, Soybean.

Introduction

Soybean (*Glycine max*) has been recognized as 'Golden Bean' and wonder crop of 20th century. Soybean belongs to the family, fabaceae and is domesticated mainly in North China, and other parts of Asia. Soybean is an important legume crop globally due to its nutritional value and industrial importance (Singh et al., 2019). It is a resourceful and interesting crop having immense possibilities in supporting industries as well as in advancing agriculture.

Similar to other cost effective crops, soybean is also encountered by many diseases. For instance, yellow mosaic disease caused by Mungbean yellow mosaic virus and rust caused by *Phakopsora pachyrhizi* Syd. are the main diseases in Indian condition. Due to these diseases, yield is reduced to nearly 80% under critical conditions (Bromfield and Yang, 1976). For that reason, it has been considered that selection of soybean genotypes having resistance from these major diseases and extreme yield potential will assist to boost the production to a greater degree.

Soybean is also known as 'Miracle crop' as it is the major source of oils (20%) and proteins (40%) in the whole world. Its quality is determined by its nutritional values by estimating its protein, saccharides, oil and mineral contents in seeds. It has various applications for industrial use like bio-diesels, plastics, solvents cosmetics, Inks and so on. As per estimate, about 90% of soybean yield is consumed by humans in various forms including as soy milk and tofu. Besides, soybean has also been used as livestock fodder (Singh, 2010).

There are number of pathogens, which attack soybean crop and damage it. As a result of pathogen attack, there is decrease in soybean crop yield and quality also. A list of pathogens with disease caused by them has been given in Table 1.

Table 1: Viral pathogens with diseases caused by them in soybean.

S.No.	Disease Name	Pathogen Name
Viral diseases		
1.	Alfa alfa mosaic	Alfa mosaic virus
2.	Bean pod mottle	Bean pod mottle virus (BPMV)
3.	Bean yellow mosaic	Bean yellow mosaic virus (BYMV)
4.	Brazilian bud blight	Tobacco streak virus (TSV)
5.	Peanut stripe	Peanut stripe virus (PSV)
6.	Soybean crinkle leaf	Soybean crinkle leaf virus (SCLV)
7.	Soybean dwarf	Soybean dwarf virus
8.	Soybean mosaic	Soybean mosaic virus

Soybean Production

As per estimate, nearly 0.8 billion people all over the world are suffering from prolonged shortage of food and because of present and coming food crisis, millions may go hungry. To cope up with the requirement, United Nations has announced to increase 70% of food production till 2050, at that time population of the world is assumed to surpass 9 billion people (FAO, 2009). High-yielding crops can help in feeding growing world population; therefore, improving seed quality, and developing tolerance/resistance to biotic and abiotic factors is a key to improve worldwide food

production. From 2009 to 2014, the soybean yield increased from 44.0 to 47.8 bushels/acre in the U.S., reaching 50.0 bushels/acre in Arkansas (SoyStats, 2015). In recent years, soybean production in USA and Brazil has exceeded that of China, while India has become the fifth major producer of soybean (FAO, 2017).

Soybean Mosaic Virus (SMV)

Soybean mosaic virus (SMV) belongs to the genus Potyvirus and member of the Potyviridae family. Potyviruses constitute the largest genus of plant viruses and include many economically important species. The genome is composed of positive-sense, single stranded RNA with the virus genome-linked VPg protein at the 5'-UTR (untranslated region), and a poly-A tail at the 3'-UTR. The genome is a direct template for translation using the cap-independent internal ribosome entry site (IRES) for initiation of translation (Ivanov et al., 2014). The genome comprises linear, mono partite, ssRNA, positive sense of 10 kb length, and its inactivation can be done by increasing the temperature to 55 to 60°C for 10 minutes, and pH either less than 4 or more than 9 (Tolin, 1999). This viral genome contains a single open reading frame (ORF), encoding a large polyprotein of about 350kDa, and that is cleaved into 10 different protein products after translation (Noueiry and Ahlquist, 2003). Its RNA, consist of 5.3% of the virus particle, encoding two different polyproteins that are proteolytically cleaved by proteases into 11 monomer or multi-functional proteins namely (P1, HC-Pro, P3, P3N-PIPO, 6K1, CI, 6K2, NIa-VPg, NIa-Pro, NIb, and CP) (Jayaram et al., 1992; Gagarinova et al., 2008; Zhang et al., 2009; Wen and Hajimorad, 2010 and Chowda-Reddy et al., 2011). Several resistance-breaking isolates of potyviruses have been reported in the last few years. Most of these resistance-breaking cases involve an interaction between a recessive resistance gene of the host and a mutated viral gene such as VPg, P3-6K1 or HC-Pro (Hjulsager et al., 2002; Moury et al., 2004; Hebrard et al., 2006).

Soybean mosaic virus disease is most common in soybean and also in many other plants (Mandhare and Gawade, 2010). Symptoms caused by SMV were first observed and documented in the U.S. (Clinton, 1915). Symptoms caused by SMV are mosaic dark green areas on the leaves and prevention of proper growth of leaflets (Tolin, 1999; Singh, 2010).

SMV may cause deterioration of seed quality, and mottling of seed coat results decrease in number of pod set, size and number of seeds (Ross, 1983; Hill et al., 1987; Buss et al., 1989; Ren et al., 1997; Gunduz et al., 2004 and Mandhare and Gawade, 2010). SMV infection leads to decreased oil contents and increased protein content (El-Amrety et al., 1987; Wang et al., 2001). There are reports of decreased yield of soybean ranging from 25 to 90% depending on SMV strains and soybean genotypes (Ren et al., 1997; Cho et al., 1977; Wang et al., 2001).

There are reports that SMV spreads in upward direction in seeds of nearly 30 different plant species by infecting the embryo and also by pollination of infectious plants through insects and wind (Hill et al., 1987; Tolin, 1999). It also gets infected by aphids (*Aphis glycines*) in specific seasons by different ways like non-circulative, stylet borne, non-persistent using a virus containing HC-Pro protein (Helper component protein) which increases its binding with virus particles to stylet (Ivanov et al., 2014). Due to ease of transmission of the virus, it is hard to control and produce disease free seeds (Gardner and Kendrick, 1921; Balgude et al., 2012).

SMV can be attained by mechanical inoculation for studies especially for breeding and genetic studies. The inoculum is consisted of infected leaflets crushed in pestle and mortar in potassium phosphate buffer solution followed by addition of abrasive into the inoculum (Buss et al., 1985; Chen et al., 1991).

For short term preservation of SMV, in vivo infections of susceptible cultivators is carried out (Chen et al., 1991) or in vitro virus infected callus culture is prepared (Chen et al., 1988). For long term preservation, ex vivo storage of SMV is done by doing cryopreservation of infected leaflets at minus (-) 80°C (Ma et al., 1995).

SMV strains have been classified in following various ways:

- * Strains identified on the basis of soybean genotype (Conover, 1948).
- * Strains identified on the basis of virulence on different soybean genotypes (Pu et al., 1982).
- * A-E strain identified in Japan (Takahashi et al., 1963, 1980)
- * G1-G7, G5H, G7a, G7H and SMV-N studied in South Korea (Seo et al. 2009).
- * Strain identified according to geographical region and responses of soybean in 25 groups SC1-SC21 in China (Li et al., 2010).
- * Strain identified on the basis of virulence, G1-G7-least virulence to most virulent in nature on soybean cultivation (Cho and Goodman, 1979).
- * New strains identified as SMV-N, G5H, G7a and G7H in Korea (Seo et al., 2009). There are reports of 80% yield loss by SMV-N and G5H strains and 65% loss by SMV-G5H strain which was dominant (Kim et al., 2003). SMV-G7H caused 50% loss and becomes the prevalent strain (Kim et al., 2003, Seo et al., 2009).
- * CN18 strain identified in South Korea because of genetic variability of virus. Other reasons of development of new strain are resistance against isolates and high selection pressure evolved in time (Choi et al., 2005).
- * SMV-R strain identified as a novel strain in Chongqing, China responsible for pathogenicity in soybean (Yang et al., 2014).

Therefore, there should be a highly precise method for handling and also to control this virus to avoid evolutionary competition between soybean as a host and SMV as a virus. A list of soybean genotypes reported as resistant against SMV is given in Table 2.

Table 2: List of soybean genotypes reported as resistant against soybean mosaic virus.

Country	Cultivar	Reference
USA	Marshall, "Ogden," Davis, York, Kwanggyo, Buffalo	Cho and Goodman (1979)
	PI 486355, Suweon 97 (PI 483084), PI 96983, Raiden (PI 360844)	Lim 1985
	PI 406710	Chen et al. (1994)
	Columbia, Holladay, Peking, Virginia, FFR-471, PI 507403, PI 556949	Yu et al. (1996)
Brazil	Campos Gerais, Bienville, Davis, PI 96983	Lima and Costa (1975)
Canada	OX615, L 78-379, Raiden, PI 96983	Buzzell and Tu (1984)
	OX686	Buzzell and Tu (1989)
Republic of Korea	Pokwangkong, Paldalkong	Hong et al. (1987)
	Eunhakong	Shin et al. (1988)
	Mallikong	Hong et al. (1981)
	Sinpaldalkong 2	Kim et al. (1994)
	Sowonkong, Keunolkong, Sinpaldalkong, Jinpumkong 2	Moon et al. (2009)
China	AGS9, Kwanggyo and Dabeima, AGS9, Kwanggyo, Xuzhou 424 and Yanhuangyihao	Zhang et al. (1989)
	Jilin 21, Gongjiao8107-12, Gongjiao8045-5224-2	Sun et al. (1990)
	Tiefeng 18	Ma (1991)
	Yanhuang 1, Dongnong 47-1C	Liao et al. (1993)
	Xudou 2 and Liao 81-5017	Liao et al. (1995)
	Zheng 77249	Liang et al. (2000)
	Dongnong 81-43, Tie 6915	Zheng et al. (1998)
Japan	Nemashirazu, Harosoy, Tohoku 45, Tohoku 46, Tohoku 47, Tohoku 51, Tohoku 53, Suzuyutaka	Nagasawa and Iizuka 1977
	Suzuyutaka	Hashimoto and Nagasawa (1986)
	Peking, PI 90763, PI 84751	Takahashi et al. 1987
	Yumeyutaka	Kitamura et al. (1992)
	Tousan 140, Horei	Gunduz et al. (2002)
India	Hardee, Ankur, PK 327	Suteri (1986)
	PK 472, PK 262, PK 564, PK 327, PK 1042, PS 1225, JS 71-05, LSb 1, KHSb 2	Gupta and Chauhan (2005)
	PS 1225	Pushpendra et al. (2008)
Pakistan	Crowford, Chico, Zane, 80-B-4007	Akhtar et al. (1992)

Inheritance of Resistance to SMV

The inheritance of resistance to SMV has been extensively studied. The three independent dominant genes for SMV resistance (R-genes) are identified and named as Rsv1, Rsv3 and Rsv4 (Kiihl and Hartwing 1979; Buzzel and Tu 1989; Buss et al. 1997). The Rsv2 gene was found initially as a resistant gene in soybean variety OX670 but Rsv1 and Rsv3 gene was also found (Gunduz et al., 2001). Rsv1 gene was first identified as a resistant gene and now most common in soybean. Rsv1 composed of Rsv1, Rsv1.t, Rsv1-m, Rsv1-k, Rsv1-r, Rsv1-y, Rsv1-s, Rsv1-n, Rsv1-h, Rsv1-c alleles which were detected in PI96983, Corsica, York, Ogden, Suweon 97, PI507389, Raiden, Marshall, LR1, Kwanggyo (Kiihl and Hartwig, 1979; Roane et al., 1983; Buss et al., 1994; Ma et al., 1995; Chen et al., 1991, 2001, 2002; Suh et al., 2011; Wang et al., 2012 and Shakiba et al., 2013). In soybean, Rsv1 gene is tightly bound to a cluster of NBS-LRR RGCs on Molecular Linkage Group (MLG) F (Yu et al. 1996) which confers resistance to SMV. In this, Rsv1 from PI 96983, Rsv1-t from Ogden, Rsv1-y from York and Rsv1-m from Marshall have been reported (Cho and Goodman, 1979). These alleles are based on their response of resistance to seven strains of SMV (SMVG1-G7). The Rsv3 genes that confer resistance to the Soybean mosaic virus (SMV) in soybean, is unlike the well-characterized Rsv1 alleles in terms of the patterns of resistance with respect to their virulence to seven SMV strain groups i.e. G1-G7 (Cho and Goodman, 1979). 'Columbia', 'Hardee', 'Tousan 140', and 'Harosoy' are the diverse forms of soybean cultivars having RSV3 alleles and these show extreme resistance to upper numbered strain groups that is G5 via G7 and necrosis of stem tip condition and/or mosaic symptoms are shown by lower numbered groups (Ma et al., 2002).

Rsv3 gene to L29 having Rsv1 shows resistance to all SMV strains, which depicts the value of this genes for developing new resistant soybean lines (Maroof et al., 2008). Gupta and Manjaya (2016) studied the genetic variation at three SMV resistance loci in a set of SMV resistant and susceptible Indian soybean genotypes using the mapped SSR markers. A total of 13 SSR markers reported to be linked to three SMV resistance loci were screened on 23 soybean genotypes showing differential response to SMV disease. One end sequence of RFLP marker M1a contain LRR gene which is closely linked with Rsv3 gene (Jeong et al., 2002) consensus sequence highly similar to that of the extracellular LRR domain of resistance genes, Cf-9 and Xa21 (Jones et al., 1994; Song et al., 1995). Wang et al. (2012) analyzed the inheritance in twelve resistance (R) soybean varieties by crossing them with a susceptible (S) cultivar (NY30, NY185, 86-4 or 8101, Nannong 1138-2) to investigate the inheritance of resistance to SC4 or SC8 strains of SMV, which were prevalent in Yangtze Valley and the Huang-Huai-Hai Rivers Region in China. For allelic analysis of resistance genes from various sources, the R parents were also crossed

with each other. The results showed that Ji LD42, Xudou 1, and Yuejin 4 and Qihuang 1, Zhongzuo 229, and NY58 carried a dominant resistance gene for SMV strains SC4 and SC8, respectively, while Kefeng 1, PI 96983, Jinda 74, Fendou 56, Dabaima and Qihuang 22 carried single dominant resistance gene for both SC4 and SC8.

Table 3: SMV resistance genes and host symptoms have been compared and summarized (Klepadlo, 2016)

Genotype	Gene/allele	Reaction of SMV strain								MLG*	References
		G1	G2	G3	G4	G5	G6	G7	G7A		
Lee68/Essex	Rsv	S	S	S	S	S	S	S	S	F,B2,D1b	Chen et al., (1991)
York	Rsv1-y	R	R	R	N	S	S	S	S	F	Chen et al., (1991)
L88-8431/Raiden	Rsv1-r	R	R	R	R	N	N	R	N	F	Roane et al., 1983; Chen et al., (2001)
PI 96983	Rsv1	R	R	R	R	R	R	N	S	F (Chr. 13)	Kiihl and Hartwig (1979); Chen et al., (1991)
Suweon 97	Rsv1-h	R	R	R	R	R	R	R		F	Chen et al., (2002)
Kwanggyo	Rsv1-k	R	R	R	R	N	N	N	N	F	Chen et al., (1991)
Ogden	Rsv1-t	R	R	N	R	R	R	N	S	F	Chen et al., (1991)
Marshall	Rsv1-m	R	N	N	R	R	N	N	S	F	Chen et al., (1991)
PI 507389	Rsv1-n	N	N	S	S	N	N	S	-	F	Ma et al., (2003)
Corsica (PI 559931)	Rsv1-c	S	R	S	-	R	S	R/N	-	F	Shakiba et al., (2013)
OX 686	Rsv3	N	N	N	N	R	R	R	-	B2 (Chr. 14)	Buzell and Tu (1989)
OX 670 / Harasoy	Rsv3	S	S	S	S	PR	PR	PR	-	B2	Gunduz et al., (2001)
L 29	Rsv3	S	S	S	S	R	R	R	-	B2	Buss et al., (1999)
V94-5152	Rsv4	R	R	R	R	R	R	R	-	D1b(Chr. 2)	Buss et al., (1997); Gunduz et al., (2001)
PI 88788	Rsv4	R	R	R	R	R	R	R	-		Gunduz et al., (2004)
Beeson (PI 548510)	Rsv4-b	ER	ER	S	-	R	ER	R	-	D1b	Buss et al., (1997); Ma et al., (2002); Gunduz et al., (2004); Shakiba, E. 2011, Shakiba et al., 2013)
J 05	Rsv1 Rsv3	R	R	R	R	R	R	R	-	F, B2	Zheng et al., (2006)
Jinpumkong 2	Rsv1 Rsv3	R	R	R	R	R	R	R	-		Moon et al., (2009)
Hourei	Rsv1 Rsv3	R	R	R	R	R	R	R	-		Gunduz et al., (2002)
Zao 18	Rsv1 Rsv3	R	R	R	R	R	R	R	-		Liao et al., (2002)
PI 468355	Rsv1 Rsv4	R	R	R	R	R	R	R	-	F, D1b	Ma et al., (1995)
Columbia	Rsv3 Rsv4	R	R	N	R	R	R	R	-	B2, D1b	Ma et al., (2002)
8101	Rsv1 Rsv3 Rsv4	R	R	R	R	R	R	R	-	F, B2, D1b	Liao et al., (2011)
PI 61944	Rsv3-n	N, M	N, M		R	R	R	R	-	-	Cervantis, 2012
PI 61947	Rsv3-h	N, M	N, M	N, M	R	R	R	R	-	-	Shakiba et al., 2012b)
PI 399091	Rsv3-c	S	S	R		R	S	R	-	-	Shakiba et al., 2012b)

*MLG = Molecular Linkage Group.

The studies with SMV resistant cultivars of soybean indicated that resistance in nearly 80% resistant soybean is controlled by single dominant gene (Kang et al., 2005). However, a few SMV resistant soybean cultivars are found to have two complementary SMV resistance genes in various combinations decreasing plant vulnerability during virus infection (Table 3) (Chen et al., 1993; Liao et al., 2011; Shi et al., 2009; Zheng et al., 2006). The occurrence of every R-gene in soybean genotypes has been evaluated and confirmed by genetic and inheritance studies (Chen and Choi, 2008; Shi et al., 2008a, 2011). However, no R-gene could be detected in most of the available germplasms (Shakiba et al., 2012a; Shi et al., 2008b, 2012; Zheng et al., 2005).

Disease Symptoms of SMV

The SMV disease symptoms depend on genotype of the host, strain type, infectious plant age and its habitat (Buss et al., 1989; Chen et al., 1991). To control the disease, it has been realized to develop SMV resistant soybean. For that, firstly, germplasms having resistance to SMV must be identified (Song et al., 2010; Foolad and Panthee, 2012). The reaction involves mosaic, systemic necrosis or resistance (Cho and Goodman, 1979; Chen et al., 1991).

Mosaic (susceptible) symptoms are: vein clearance, curling of leaves, puckering, cupping downward, smaller blade size, reduction in pod set number and size, reduction in seed size, coat mottling, secondary root deduction and nodulation in bacteria, problems with seed germination and seedling vigor are also significant (Balgude et al., 2012; Bos, 1972; Cho and Goodman, 1979; Gardner and Kendrick, 1921). Susceptible plants often survive and finish plant life cycle, however, SMV infections at reproducible stages of plant development can significantly reduce yield (Cho et al., 1977; Ren et al., 1997; Tolin, 1999; Wang et al., 2001). A host plant is considered fully susceptible when the virus can successfully complete its replication, cell-to-cell movement through plasmodesmata, and long distance movement through vascular tissues (Carrington and Whitham, 1998; Soosaar et al., 2005). The symptoms associated to early resistant and late susceptible are caused due to the slow vascular movement of SMV. The SMV resistance is expressed by late susceptible plants after 20 days of inoculation and then sensitivity is seen as small greenish yellow to bronze lesions or injury, on one or more leaflets (Gunduz et al., 2004).

The necrotic symptoms indicated extreme hypersensitive reaction of the host to SMV. In general, the necrotic reaction provides yellow and brown discoloration on upper leaves, stunting of the entire plant, browning the stems and petioles, defoliation, and ultimately plant death. The necrotic symptoms are a protective system, which is activated in response to SMV in order to reduce spreading the disease within the crop (Li et al., 2009; Ma et al., 2003; Matthews, 1991). Some soybean lines like PI507389 and PI96983 develop necrotic symptoms in a shorter period after infection leading to plant death at the V1 developmental

stage, whereas other lines, like PI 547857 requires much time to acquire signs of necrosis (Ma et al., 2003). In necrotic plants, viral replication, cell-to-cell and long-distance movement are reduced although the virus is still detectable by molecular and immune Histo-chemical methods (Matthews, 1991). It is suggested by genetic studies that the classification of necrotic plants should be done as resistant while calculating the segregating populations since heterozygous phase of Rsv1 locus is correlated with the necrotic reaction (Chen et al., 1989; 1994).

Resistant soybean varieties exhibit no disease symptoms and are indistinguishable from non-infected plants. A host plant is resistant if it can block viral replication, cell-to-cell or long distance movement; therefore, SMV is not detectable in these plants (Soosaar et al., 2005). Chemical and cultural controls of SMV are neither economical nor environmental friendly (Matthews, 1991; Singh, 2010). The utmost productive substitute for controlling disease is the use of genetic resistance in an effective manner (Chen et al., 1991; Shi et al., 2009).

Molecular Mechanisms of SMV Infection

The molecular interactions between SMV and the host are complex and many mechanisms are still unknown. The virus is released directly into the host cell via mechanical damage of soybean tissue (Ivanov et al., 2014). In susceptible plants, after entry into the cell, coat protein (CP) is first removed which is called as virion encapsidation and then the genetic information is translated. Two products of translation are produced as precursors of functional proteins; Long polyprotein as a result of translation of the entire genome and Short polyprotein P3N-PIPO produced via ribosomal frameshift. After translation (protein synthesis), polyproteins are subjected to proteolytic processing by 3 proteases which are self-encoded to produce mature proteins (Ivanov et al., 2014; Soosaar et al., 2005).

The SMV infection starts with several steps for translation followed by replication of its own enzyme namely replicase, RdRp (RNA dependent RNA polymerase) in cytoplasm creating self-defense for viral genome against silencing (Matthews, 1991; Soosaar et al., 2005; Ivanov et al., 2014). Some of the copied molecules are coated (virion assembly) while some copies remain uncoated and move into the neighbor cells through plasmodesmata as a nucleoprotein complex including viral movement proteins (CP, HC-Pro, CI, and p6K) that are capable of increasing a plasmodesmatal size exclusion limit (SEL) and mediate the passage of viral molecules between cells by interaction with the plant cytoskeleton. Long-distance movement occurs when the virus spreads through the vascular system and can infect cells located far from the initial infection point (systemic infection) (Rojas et al., 1997; Soosaar et al., 2005; Wei and Wang, 2008). From the 11 viral proteins produced after translation, CP, VPg, HC-Pro, CI, and P3N-PIPO may play a role in viral transport through plasmodesmata (Dolja et al., 1994; Rojas et al., 1997; Wei et al., 2010; Wen and

Hajimorad, 2010). Long-distance movement via phloem is poorly understood but four viral proteins, CP, HC-Pro, VPg, and 6K2 are associated with this phenomenon (Dolja et al., 1994). Babu et al. (2008) used microarray technology to detect expression changes of Williams 82 SMV-susceptible genome infected by SMV-G2 strain. Many genes of hormone metabolism, cell wall biogenesis, chloroplast functions and photosynthesis are significantly down-regulated at 14 days of post inoculation. The genes involved in defense are up-regulated at the late stages suggesting that the response to SMV was delayed and the plant could not combat the infection.

The SMV and R genes of soybean have not been widely studied. The P3 is responsible for Rsv1 mediated necrosis when studied in Rsv1-SMV relation but its absence is not enough for G7 to attain virulence (Hajimorad and Eggenberger, 2005 and Hajimorad et al., 2008). Zhang et al. (2009) noticed that for Rsv3-mediated resistance, N- and C-terminal regions of the viral CI protein are essential. Based on the same strategy, Chowda-Reddy et al. (2011) described that the P3 of G2 strain is an avirulent elicitor for Rsv4.

Genetic Resistance of SMV

The increasing human population requires meaningful growth in agricultural production. This challenge has become more challenging since changes in the climatic and environmental conditions under which crops are grown have resulted in the appearance of new disorders, while the loss of earlier competent sources of resistance occurred due to the genetic modifications inside the pathogen. To help meet this challenge, advanced genetic and statistical methods of analysis have been used to identify new resistance genes through global screens, and studies of plant-pathogen interactions have been push forward to reveal the process through which resistance in disease is acquired. There is an urgent need to better understand crop-pathogen interactions and how this knowledge can be applied in agricultural strategies. Relationship between plants, pathogens and pests have been currently discussed in different models (Andolfo and Ercolano, 2015; Singh and Kumar, 2019). The genetics of plant-pathogen interactions and advances in methods of identification and assessment of genetic variability for disease resistance, to achieve sustainable disease resistance in crops is described in following two ways:

1. Specificity of Plant Disease Resistance:

Plant disease resistance can be divided into either non-specific or specific disease resistance. Non-specific plant disease resistance is a response to all races of a particular pathogen, and occurs in all cultivars of a host plant species. Specific plant disease resistance is governed by an encoded protein that is capable of altering the outcome of an otherwise compatible plant-pathogen interaction (Moncrieff, 2003). The specificity of plant responses to pathogen can occur due to a small number of closely similar

genes or a single gene, which allow the generation of race-specific elicitors. An elicitor is mainly a protein coded by non-virulent gene Avr. The three most common mechanisms in specific plant disease resistance are race-specific resistance, cultivar-specific resistance and race-cultivar-specific (gene-for-gene) resistance.

2. The Relationship between Non-specific and Specific Resistance:

Non-specific plant resistance against a disease may have several components. It depends on the basis of passive or inactive plant defenses where non-specific elicitors generally activate the active defenses. While specific plant resistance against disease that arises from race specific elicitors (foreign molecules) apparently overlaps on a non-specific resistance reaction. A race-specific elicitor results from a case of race-specific resistance and often cultivar-specific resistance and thus called as race-cultivar-specific resistance. Interaction of the elicitor and receptor activates a complex signal transduction pathway resulting in the induction of plant defenses against pathogen races harboring the elicitor (Moncrieff, 2003). Hypersensitive responses always occur in race-specific resistance as a response of rapid and localized cell death in the host to the invading pathogen species that colonizes primarily through the living plant tissue (Hammond-Kosack and Kanyuka 2007).

In the gene-for-gene interaction, the plant R gene and the Avr gene must have matched specificity for that R gene to confer resistance or immunity to that pathogen in the plant. Plant resistance to pathogen occurs by interaction of particular genes in the plants and pathogens (Wanderley-Nogueira et al., 2012). Any protein component of a virus can function as a specific Avr determinant to elicit resistance mediated by the R gene (Soosaar et al., 2005). If both genes are present, then only the pathogen is rapidly detected and contained. The genetics of this kind of interaction is known as Gene for Gene interaction. This model proposes that the R gene interacts with a protein that is the target of the Avr gene. This molecular recognition activates gene expression and initiates a signal transduction cascade, which leads to the expression of the plant defense mechanism.

Meanwhile in the direct binding of an Avr and R gene, many plant genes and/or proteins are regulated. Plant signaling growth regulators such as salicylic acids, jasmonic acid and ethylene are regulated to mediate plant defense signal transduction. Changes in ion fluxes lead to the production of reactive oxygen intermediates (ROIs), mitogen-activated protein kinase (MAPK) and activation of other protein kinase pathways. As the result, guarding mechanism and direct binding, systemic acquired resistance (SAR) are triggered in plants. The SAR pathway is also common in many non-compatible plant-pathogen interactions (Nurnberg and Brunner, 2002). As soon as the pathogenic agent is detected, the plant induces a complex set of signal molecules capable to activate defense proteins

that may have a direct antimicrobial effect, as in the case of pathogenesis-related (PR) genes (Durrant and Dong, 2004). Alternatively, they may induce the production of secondary metabolites that impair pathogen movement or growth within the plant tissues (Sparla et al., 2004). Most PR genes are expressed at a basal level under normal growth conditions, but are rapidly induced after pathogen infection. It is worthy to note that several PR genes are also regulated during development, leaf senescence and pollen maturation, as well as by environmental factors, such as osmotic, cold and light stress (Zeier et al., 2004; Wanderley-Nogueira et al., 2012). SAR leads to cell wall reinforcement (lignin), antimicrobial chemicals (phytoalexins), an oxidative burst and pathogenesis related (PR) proteins that confer resistance in plants (Borras-Hidalgo, 2004).

Conclusion

The SMV-soybean host pathogen interaction is a well-characterized model system for the study of infection cycles of potyvirus, virus-host interaction, host range, seed and vector transmission. The most efficient way of managing losses from SMV are sowing of virus free seeds and R genes containing cultivars. In this review, we focus on the major advances made in soybean, its production, SMV and its strains, inheritance of resistance to SMV, disease symptoms of SMV along with its genetic resistance that ultimately provides better knowledge about soybean crop improvement and their resistance against mosaic virus.

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A STUDY ON THE DEVELOPMENT OF WOMEN ENTREPRENEURSHIP IN SATNA (M.P.) INDIA

Sonam Agrawal

ABSTRACT

PURPOSE :

This study examined the development of women entrepreneurship in Satna City. Women entrepreneurship enhancing idea in this days giving a new precision to the country. Women are expressing their ability in all area participating equally with the men. Thus the aim of this paper is to enhance the development of women entrepreneurship skill with the help of providing assistance.

The success of women not in equal in all cities, based on Social, Cultural, demographical geographical environment. It is changing from one country to another country. Hence motivational efforts provided to women help to empowering the development of entrepreneur skill. It also focusses on the government effort and policy done by government for women entrepreneur. This paper specially designed for women to initiate her to become a successful entrepreneur by providing several motivation techniques.

Key Words : Entrepreneurship, women entrepreneurship, women empowerment.

INTRODUCTION :

Women entrepreneur means such type of activity where a single women or more than one women engaged on any earning activity and operating any business.

The Government of India has defined a women entrepreneur as "an enterprise owned and controlled by a women having a financial interest of 51 percent of the Capital and giving at least 51 percent of the employment generated by the enterprise to women.

Now a days women comes from their homes and work along with men. Her ability is incomparable. She helps men also to accomplish the objective of enterprise in equal manner. Primarily everyone not agree that women require to do financial activity also. They think that women only made for home work and duty. Now a days but the mindset of people has changed they thought that it is not bad to say that women have to take supplement support to their family engaged in any entrepreneur skill also help the women to become self depend which also enhance their self respect.

Hence women entrepreneur activity enhance the social environment also now the backward thinking goes out but in rural areas some people didn't want to changes their lifestyle. This type of social restriction caused harm to the development of their skill but women have capacity to tackle this problem and enhancing them.

WOMEN ENTREPRENEURS :

Women entrepreneur is the process where women take lead and organize a business or industry and private

employment opportunity to others. Though an initial stage women entrepreneur only at urban areas, lately it has extended its wings to rural and semi urban areas too. Although earlier women concentrated much on traditional activities due to the spread of education and government policies led towards development of women entrepreneurship. Women have changed their attitude and diverted towards non traditional activities too. They show favourable response to changing situation and get adjusted themselves and have improved position.

The Govt. and Non Govt. organization are giving more promises to promise self employment among women and build women entrepreneurship special financial assistance is provided and training programs are organized from women to start their venture.

REASON FOR WOMEN BECOMING ENTREPRENEUR :

Women entrepreneur's as a person who accept challenging role to meet her personal needs and becomes economically independent. Various reasons can be concluded why women are showing to become as entrepreneur. Now a days every women want to become self dependent. Educated women are not restricting themselves to the household activities they are trying to spend their time for doing business or any activities. The challenges and opportunities provided to the women of digital era are growing rapidly that the Job Seekers are turning into job creators. They are working as designers, interior decorator, exporters, publishers, garment manufacturers and still exploring new ventures. The following are the reasons for women becoming entrepreneurs. (i) Innovation thinking (ii) Education and qualification (iii) Self identity and social status (iv) Employment to others (v) Role model to others (vi) Government Programmes & Policies (vii) Support of family member (viii) Need for additional Income (ix) Family occupation (x) Economically independent.

IMPORTANCE OF THE STUDY :

World economy of the country is classified into developed economy, developing economy and under developed economy. As per statistics it is known that in well developed economy women is having freedom to develop as an entrepreneur, they are having equal priority as equal as man but in developing economy and under developed economy women are facing different types of problem through government introduces different types of schemes for the sake of women. Women are growing well

day by day in all sectors and areas. Their contribution are more as scientists, Software engineers, technocrats, economists, Professor, lawyers, doctors and as a businessman also. So it is clear evidence that women contribution for economy is essential and considerable.

LIMITATIONS OF THE STUDY :

Although this study has made considerable contribution in entrepreneurship research, a longitudinal study is also needed. Women entrepreneur are playing prominent role in progress economy well. Such women are facing problem not only economical but also psychological. Further research should validate the conceptual model with a large sample size by applying different equalitative tools and techniques. There are certain unique motivational factors which facilities women to progress well.

METHODOLOGY :

The research is based on primary and secondary data. The primary data is collected through direct interview of women entrepreneur of Satna City. Here there are many trading, manufacturing. Field survey method are also employed to collect primary data from 100 respondent. The secondary data is collected from review of past Journals, researches, articles and other reports.

The data are collected from MP, a State in India with the help of interview approach. The interview approach is one of the methods of qualitative research. Qualitative research focusses on the in depth understanding of behaviour of respondents and the reason behind his or her behaviour. The interview method used in this study help in finding out in dept information about their entrepreneur journey.

FINDINGS :

- (i) 40% of the women's are accepted husband motivates a lot to become an entrepreneur.
- (ii) 45% of the woen's are accepted if they face any problem they are giving priority to husband and family member to share their business.
- (iii) 90% of the respondent told that their self confidence got increased with this women entrepreneur activity.
- (iv) Majority of the women belonging to the age group 25-45 years.
- (v) Most of the women entrepreneur are illiterates adn majority of women entrepreneur were widowed and separated/divorced.

SUGGESTION FOR THE GROWTH OF WOMEN ENTREPRENEUR :

The following are the suggestion found form my study for the betterment of women entrepreneur. There should be change in the mind of parents as to educate their daughters because economic development of nation can be achieved only through proper education. Proper should be taken by government to check whether the schemes are reaching to actual beneficiaries or not. Rural people are still depending on agriculture as their income source. Family support should be more for women entrepreneur so that they can gain success from their entrepreneurial activities.

CONCLUSION :

Entrepreneurship in not a bed of roses to women. Women entrepreneur in many kinds of economic activities to complement to their family income, their participation in no way reduces their family duties. The task of women has become more radious and full of challenges. Women entrepreneur are not only required motivation in the form of financial assistance and government permission, they may require support from family member and life partners.

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FEMALE ACTIVE SPORT TOURISTS: UNDERSTANDING CHARACTERISTICS AND MOTIVATION

Jidapa Seebunruang

Female participation and popularity in sports have been increased dramatically in the twenty-first century, which generate substantial social and economic benefits to host community and bring to sustainable tourism concept. The purpose of this study is to explore characteristics of female active sport tourists, what motivates this group to participate in the long-distance running event, a desire to re-visit, and word-of-mouth making. The study classified 415 on-site participants in the Khon Kaen International Marathon 2017, Thailand, into four sport affinity segments. The results found that almost half of the samples were the Beginner and about a quarter of the samples were the Explicit Active Sport Tourist. The degree of affinity had significant differences on their socio-demographic profile, motivation, and event loyalty. The findings may aid sport tourism policy, sport event planning, and tourism marketing strategies to develop sport events which better match the targets' characteristics and behaviors of the region.

Keywords: sport tourism, female, affinity segment, characteristic, motivation

Introduction

Sport tourism situation

Sport tourism has been continuously discussed in the academic field over the past three decades since it is a growing trend, and plays an important role in the economy and society. Sport tourism generated revenue of \$4.5 trillion (Tassiopoulou & Haydamb, 2007), resulting in job creation, development of people's quality of life (Swart & Bob, 2007), reduction of poverty and provision of social welfare for the community (Homafar et al., 2011). For these reasons, sport tourism has received a lot of attention from both developed and developing countries. It also plays a very important role in the national economy growth in the 21st century.

In the past, sports participation was restricted by the social class due to the high cost of sports equipment. Nowadays, there is a group of sports called "sports for all", which means that the sports is suitable for everyone; all genders and ages such as long-distance running which is often referred to "marathon". It is one of the most popular sports in the world, such as the Tokyo Marathon, Boston Marathon, London Marathon and Berlin Marathon. According to a study by Andersen (2018), from 2009 to 2014, the growth rate of marathon worldwide was 13.25% and the highest rate was in Asia as of 92.43%: 300% in Russia; 259.47% in the People's Republic of China and 211.90% in

the Philippines. These countries had the highest growth rate compared to other countries around the world.

Sport tourism in Thailand has received a lot of attention from the public, private and state sectors. In 2016, the Ministry of Tourism and Sports, Thailand introduced sport tourism as one of the main themes of tourism promotion with the aim to make Thailand a world sport tourism destination due to the rising popularity in Special Interest Tourism. The niche market has also been expanded. This type of tourism does not only stimulate domestic market, but it also attracts foreign markets. Therefore, marathon is a tool used for economic and social benefits. Also, the operation will be successful if the facilitators understand the features and the behaviors of the target audiences in order to properly prepare the events responding to the participants' expectations (Green & Chalip, 1998). However, local sport tourism events taking place in small communities such as bicycling and running have not been the focus of sport tourism studies (Chalip & Green 2001).

At present, women are the main target group receiving special attention from all over the world as they continue to have higher rate of travel, high potential for spending and purchasing decision power; for example, certified female friendly hotels where offer women-only floors with enhanced security features in hotels, lady-specific seats in aircraft and lady-specific train carriages for aiding the independent woman traveler, and woman-specific rooms with further female amenities and facilities in 5-star-chain-hotels.

Focusing on sport tourism in terms of "sports for all", it is estimated that the rate of female runners around the world has grown three times faster than males at 26.90%. The growth rate of female runners in Asia is 97.80%. The proportion of female runners in the United States is 45.15%; that of in Canada is 44.42% and 43.96% in New Zealand, which is quite close to males, and it is considered as the highest proportion compared to other countries (Andersen, 2018). In some countries, such as Japan and Malaysia, marathon is specially held for women.

Sport tourism definition

Sport tourism is under the umbrella of Special Interest Tourism. This group of tourists is particularly interested in sports. The definitions of sport tourism are still under debate among academics. This is due to the relationship between the two disciplines; sport and tourism. Each academic has shared his/ her own viewpoints.

Based on the dimension of participation in sport tourism, sport tourism is the departure from the residence to

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participate in all forms of sport activities for recreation or competition (Gibson & Yiannakis, 2002), including active and passive sport activities (Delpy, 1998; De Knop, 1998; Hinch & Higham, 2004). Based on the three types of sport tourism; these are active sport tourism where participants travel to take part in sports, event sport tourism where participants travel to watch sport, and nostalgia sport tourism where participants visit sports related attractions (Gibson, 2003; Gibson & Yiannakis, 2002). In terms of the dimension of the purpose of travel, sport tourism refers to the travelers whose main purpose of travel is to attend or race in sports while traveling and recreation are the secondary purposes (De Knop, 1990). Based on the touristic endeavours, sport tourism refers to sport tourism attractions, sport tourism resorts, sport tourism cruises, sport tourism tours and sports tourism events (Kurtzman & Zauhar, 2003; Kurtzman, 2005).

In this research, sport tourism means the departure from the residence with the main purpose of participation in competitive sporting activity involving the concepts of times, space, and rules of the sport event.

Sport affinity segmentation

Sport tourists are not a homogeneous market, by displaying a range of characteristics motivations, and behaviors. Market segmentation is the process whereby a market such as sport tourists is divided into distinctive market segments so that appropriate marketing and management strategies can be developed for each group. Standard criteria used in market segmentation are demographics, geographic, motivation, attitude, and behavior. Behavioral segmentation is a grouping of people based on behaviors, which the group of people with the same behavior can be better understood. The research that is quite remarkable about the affinity segmentation of people was national park affinity (Küpfer, 2000; Job, 2008; Mayer et al., 2010). Google has also launched affinity segments, which reflect a user's lifestyle and can be used for marketing planning. However, the studies about sport affinity segmentation have not been found.

Sport tourism motivation & sport event loyalty

Researchers try to understand the thoughts, beliefs, and behaviors of travelers by conducting psychological research to study the stimuli/motives affecting the behaviors (Chon & Sparrow, 1999; Kotler & Keller, 2006).

Motivation can vary from the level of motivation and the orientation of motivation. Various theories of motivation were applied from Maslow's hierarchical theory, Murray's needs theory of personality, and Berlyne's concept of optimal level of stimulation to understand sport participants (Cassidy, 2005).

The decision of sport tourists to participate in a sporting activity and event is intentionally attracted by both internal and external forces. Internal forces include sport

involvement, the love of sport (Deery et al., 2004; Nogowa et al., 1996), willing to experience of being there (Delpy, 1998), feeling to escape, self-exploration, and relaxation (Crompton, 1979). The external forces consist of the social, economic, environmental and political factors. The study found that friends, family, relatives, (Kurtzman & Zauhar, 2005; Tassiopoulos & Haydam, 2007; Mason, 1990), improvement in kinship relations, social interaction, prestige (Crompton, 1979), natural resources and tourism facilities of the city host (Homafar et al., 2011), destination image (Kaplanidou & Vogt, 2007; Baloglu & McCleary, 1999; Walmsley & Young, 1998), and media advertising (Kurtzman & Zauhar, 2005) were external choices to participate in sport tourism events and activities.

Loyalty customers has been focused by the marketers because this group is very likely to repeat purchase and revisit the place. Moreover, this group definitely recommends positive word-of-mouth to the new comers which would influence their buying decision. The study by Booth & Loy (1999) indicated that people with similar socio-demographic and lifestyle would share their life experiences to each other on a regular basis such as by telephone, email, social media due to the force of globalization. Therefore, the positive WOM is gold business due to non-marketing cost tool.

Research questions

According to all the reasons mentioned above, sport tourism in female tourists has grown significantly, but there is little research focusing on characteristics, attractiveness, and behaviors of female tourists and it is outdated (Boutillier & SanGiovanni, 1983; Greendorfer, 1979). Such research has also not been found in Thailand. The study conducted by Jackson & Marsh (1986) found that not all types of sports that females would participate in, especially the sports requiring an aggressive physical activity. Therefore, this research focuses on studying and finding the answers for the following questions.

- * What are the characteristics and motivations of female active sport tourists?
- * What is the proportion of respondents to KKIM with different sport affinity?
- * Do affinity-segments differ in their socio-demographics, motivations, sport participation experience, intention to revisit and WOM?

Research methodology

Research area

Khon Kaen province is one of the destinations for international events and the fifth MICE destination of Thailand. Khon Kaen International Marathon (KKIM) has been held as an annual event since 2004 and it became increasingly popular to 12,820 runners with 39.56% of female runners in the year 2017. The proportion of female was increasing to 10.6% from 2013 to 2017. The event is certified by Association of International Marathon and Distance Races.

Data collection

The survey was carried out 3 days: 27-28 January 2017, which were the registration days, and 29 January 2017, which was the running event. The questionnaires were distributed to randomly selected participants. Face-to-face interview was administered; however, self-response was preferred by some runners. A sample size of 400 questionnaires was targeted to be within a sampling error of $\pm 5\%$. In total, 451 questionnaires were provided and around 92% were returned with completed forms. The samples who were interviewed were over 15 years old.

Questionnaire design

The questionnaire was only in Thai for domestic actual sport tourists. It asked about socio-demographic characteristics including age, marital status, level of highest education, main occupation, pre-tax income, and current residence. Questions pertaining to past experience asked how often respondents have joined the KKIM Event during their life and other long-distance running events in the past 12 months.

Segmentation was used to identify possible segments among participants. This concept proposes four groups, the so called "Explicit Active Sport Tourist" (Explicit AST), who has participated in KKIM and other long-distance running events before, the "Area Active Sport Tourist" (Area AST), for whose race is only KKIM and have never experienced with other marathons, the "Experimental Active Sport Tourist" (Experimental AST), who firstly participates in KKIM but has experience from other marathons, and the "Beginner", whose participation is first long-distance running in life. The segmentation relies on the combination of two questions addressing their running events experiences. One question asked "Have you ever participated in KKIM before?", The second question was "Have you ever participated in other marathon events?". Both questions were answered by "no" or "yes". Both questions were cross-tabulated to identify the proportion of active sport tourists by their experiences.

The 14 reasons of joining the running program, and the intention to revisit were included in the survey. Importance of reasons for participating in the running program were asked in 15 items on a 5-point scale ranging from "1 = not at all important" to "5 = extremely important". Satisfaction of the previous KKIM events which is one of 13 items also asked participants who have had participated in KKIM event. The question "Will you participate in the KKIM event again next year?" was used to measure their intention to revisit, using a 4-point scale ranging from 1 (yes, very likely) to 4 (never).

Data analysis

Crosstabulations and Independent t-test tested for the four sport affinity segmentation. One-way ANOVA and Chi-square-tests tested for differences between the four affinity segments on respondents' characteristics, motivation, and

intention to revisit and word-of-mouth. Data were analyzed using the statistical program SPSS. A significance level of $p < 0.05$ was chosen.

Reliability of items showed Cronbach's alpha of 0.871. The 5-Likert-scale in motivation, revisit intention, WOM possibility had a Cronbach's alpha of 0.854 to 0.880, showing that the internal consistency of the scales was excellent.

Results

Sample characteristics

The average age of the samples was 28 years old, and 85% of them were single (Table 1). Also, 41.4% were high school and undergraduate students, and 60% were students. The average pre-tax income per month of most samples was \$1,026 - \$4,035, and 74.5% of the samples were local residents.

Sport affinity segmentation

The frequencies per answer category of these two participating affinity questions were cross-tabulated to identify the proportion for each respondent segment (Table 2). The questionnaire cannot only be grouped according to the sport affinity level, but it is also linked to the place attachment. This segment with the highest sport affinity was called the Explicit AST, which was about one-third of the samples. The segment with the second highest affinity level, the Experimental AST included 10.8% of the samples. The segment with the third highest affinity level, the Area AST was included 15.4% of the samples. The largest segment, the Beginner was accounted for 44.8% of all respondents and showed the lowest affinity.

Profile of affinity-segments

The degree of affinity has significant differences on their socio-demographic profile, motivation, and event loyalty.

The Explicit AST-segment was an active sport lover. Compared to other groups, this group was the highest average age group, 32 years. Also, most of them completed the bachelor's degree, and one-third earned higher degree than bachelor's and worked as government officials and employees. They were in the upper-middle income class, and two thirds of them were local residents.

The Experimental AST-segment was considered the most income earners, both the upper-middle income and high income proportion. Also, this segment showed the highest proportion of education level, which 38% was higher than a bachelor's degree. They were mostly company employees and business owners, the average age was 31 years. This segment was the highest proportion of tourists (40%).

The average age of the Area AST-segment was 26 years. Most of them (90.6%) were local residents and were students (72%) and retirees. This group had the lowest income compared to other groups.

The Beginner segment was the lowest average age

group; 25 years, two thirds of them were students and local residents. They were in the lower-middle income class.

Motive for visiting and event loyalty

Overall, respondents' top three main motivations were for good health, pride, and running location. These got the same average score (Table 3). Pride and PR by organizer were also very important factors to bring samples to the event while the scores of other factors were somewhat important.

There are significant differences between the degree of affinity and their motivations were new experience, running location, running route, public relation by organizer, making friends, being with friends, family, and relatives (FFR), and international event.

Compare to each group, new experience item was got the highest rate from the Beginner, followed by the Experimental AST while the Experimental AST gave the highest score on making friends, being with FFR, and KKIM as an international running event. The Explicit AST-segment rated the highest score on running location, running route, and PR by organizer.

The samples were very likely to revisit and made WOM. The Explicit AST-segment most wanted to revisit and tell others about the event, followed by the Area AST, the Experimental AST, and the Beginner, respectively.

Discussion

Overall, a profile of active sport participants is a common pattern; single and young adult (Homafar et al., 2011; Bureau of the Census, 1995). The characteristics of the Explicit and Experimental-AST segments were consistent with the previous research which has found that active sport tourists are well educated and relatively affluent (Gibson et al., 1997; Schreiber, 1976; Kaae & Lee, 1996; Booth & Loy, 1999). Although long-distance running has been claimed as sport-for-all, based on the samples' information, financial resources were one of the important factors affecting the travel to participate in sports activities in other areas. This was consistent with the research results conducted by Kidd (1995).

There is a wider understanding of active sport tourists that are relatively more active and concerned about health related benefits that can be achieved through exercising and also event participation. Therefore, health is the first inspiration of active sport tourists. Marathon is the competition determining the distance for participation. If the participants can conquer the goal, they will be proud of their ability to win over themselves and show the potential of a healthy body. The number of participants is related to the promotion via media channels and the effectiveness of the media. In addition to being the channel to provide detailed information about the event, media also increase interest and participation.

Motives of visiting of each group were quite clear and consistent with their behavior. The Beginner, the groups

that had never participated in any running event before in his/her life, rated the highest score on new experience. The Experimental AST-segment was a group that had participated in the running events, but still wanted to get new experiences from other running events. Interestingly, those who had experienced the running events like the Explicit AST-segment and the Area AST-segment still wanted to revisit to the former running events they had joined in order to get new experiences. Obviously, this is a clear indication that even the running event is held annually with the same old running route, the participants think that every time they participate in the event, they will get different experiences. This may include the interest of the event, management style and people who attend the event. This is a good indication because these groups see that these are different experiences from their everyday. Also, getting new experiences creates new inspirations, new perspectives, excitement, challenges and fun.

Running location firstly attracted participants to join the event in terms of location differentiation of each area organizing the running event especially, the Beginner and the Experimental AST-segment who would like to experience new locations. However, even if the Explicit AST-segment and the Area AST-segment had participated in KKIM and had been to this area, location was still prioritized. This might be due to the familiarity of the area, commitment, ease of travel and satisfaction with the past event. This is consistent with the study by Gibson's (1998) which found that active sport tourists tend to engage in repeat activity. The important findings of the study were that the last two or the least appealing factors were the entry fee and the souvenirs from the running event: medal and running shirt. In every running event in Thailand, what organizers are always trying to offer and promote are running shirts and medals that are different according to entry fee based on the registration period (e.g. early bird fee/ normal fee). The study found that the entry fee, the running shirt and the medal obtained from the running event had little effect on the decision of active sport tourists. Thus, the organizers may focus on these as the secondary issue.

Interestingly, when comparing the behavior of each group, the distinguish characteristic of the Beginner would be to try something that they have never done just to find new experiences. The Experimental-AST segments focused on social interaction, including participating in the running event with friends/family and creating new relationships with those having a passion for running and the same lifestyle. However, the Explicit AST and the Area AST-segment were the higher levels of the place attachment. Although they had participated in this running event or come to this province, they still were excited and desired to be involved and part of the event.

In competitive market of sport tourism destination, the Explicit AST-segment might be highlighted as loyal

visitors who generate important advantages and long-term benefits to the sport event and the local area. The Explicit AST wanted to revisit the most and wanted the most to tell others about the event. In addition, this group also showed their post-satisfying experience encouraging them to repeat visitation and promote positive word of mouth to their relatives about this event.

Conclusion and suggestions

Female active sport tourists in Thailand are well educated and relatively affluent. Sport affinity segmentation can assist the event professionals, event organizers, promoters, tourism planners, tourism marketers, and researchers to illustrate their characteristics, motivations, and event loyalty of the on-site situation of Thai running event. The Explicit AST-segment with the highest level of sport affinity and place attachment indicated the most positive in both returning and making word-of-mouth. It means that this segment plays an important role in regional economy and development, and the benefits will further increase in the long-term if the running event's performance satisfies the tourists. These participants will revisit the event, and express their experience and positive word-of-mouth to their acquaintances to become the new sport participants. Therefore, in marketing strategies of running event and tourism destination, the Explicit AST-segment might be highlighted as loyal visitors who generate important advantages and long-time benefit to the destination. However, in terms of the proportion of residence, it was found that most of the participants were local residents, not real/actual tourists. It indicated that this sport tourism event received a lot of positive feedback and participation from the community. Although less economic stimulus is provided compared to tourist arrivals and expenditures, it will be supported by the community and the long-term sustainability of tourism.

It is recommended that further research should collect the data of tourists' expenses to investigate which group of active sport tourists plays the most positive role in stimulating the local economy and what the proportion of spending is.

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Table 1. Socio-demographic profile of samples

Items	Samples (n=415)	The Beginner: 44.8% (n=186)	The Experimental Active Sport Tourist: 10.8% (n=45)	The Area Active Sport Tourist: 15.4% (n=64)	The Explicit Active Sport Tourist: 28.9% (n=120)	p-value/ Chi-Square*
Age in years (mean)	27.66	24.93	30.64	25.44	31.96	.000*
Status in %						ns
Single	85.0	84.9	84.4	90.6	82.2	
Married/ Stay together	13.3	13.0	15.6	7.8	16.1	
Divorce/ Separated	1.7	2.2	0	1.6	1.7	
Highest education level in %						.000
Below Bachelor's	41.4	54.8	17.8	50.0	25.0	
Bachelor's	31.6	32.3	44.4	40.6	41.7	
Higher Bachelor's	21.0	12.9	37.8	9.4	33.3	
Main profession in %						.000
Students	60.0	71.5	40.0	71.9	43.3	
Employees	11.1	9.7	22.2	3.1	13.3	
Business owners	5.5	2.2	20.0	3.1	6.7	
Retirement	.5	0	0	1.6	.8	
Government officers	21.4	15.1	17.8	18.8	34.2	
Unemployed, looking for jobs	1.4	1.6	0	1.6	1.7	
Pre-tax income in %						.000
\$1,025 or less	19.8	23.2	11.6	28.6	12.6	
\$1,026 and 4,035	42.0	50.8	23.3	49.2	31.1	
\$4,036 and 12,475	26.3	18.9	44.2	15.9	37.0	
\$12,476 or more	12.0	7.0	20.9	6.3	19.3	
Residence						.001
Non-residents	25.5	29.6	40.0	9.4	22.5	
Residents (Postcode 4000x)	74.5	70.4	60.0	90.6	77.5	

Table 2. Active sport tourist segments and segment sizes (n=415)

Segments Questions	The Beginner: 44.8% (n=186)	The Area Active Sport Tourist: 15.4% (n=64)	The Experimental Active Sport Tourist: 10.8% (n=45)	The Explicit Active Sport Tourist: 28.9% (n=120)
Have you ever participated in KKIM event before?; no in 55.7%	Never, this is my first time	Yes	No	Yes
Have you ever participated in other Marathon events?; no in 60.2%	No	No	Yes	Yes

Crosstabulation; p-value =.000

THE HELPING IN THERAVADA BUDDHIST PHILOSOPHY

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Abstract

Theravada Buddhist Philosophy offers indiscrimination to solve the problem of selfishness through building mental equality. This is through enacting regulations with the aim of human development rather than mental coercion. As a result, it leads to help others without Lobha (greed), Dosa(hatred), and Moha(delusion) or Akusala-m?la (unwholesome roots)

Consequently, helps in Buddhist Philosophy are developed through three developmental perspectives, i.e. (1) Saññ?(perception)-it is possible to help under dogmas such as laws, disciplines, mores and common practices coded as the cornerstone one must not infringe without prior common agreement and consensus;(2)Viññ??a (consciousness)-helps which is ministration emphasizing righteousness in accordance with Dhamma and not for oneself and anyone else;and (3) Paññ?(wisdom)-helps under prudence which is not just only supporting Dhamma or promoting righteousness but also enabling the persons under assistance to achieve self-development through self-reliance rather than leaving them forever waiting helps from other people.

Keywords : Helping, Theravada Buddhist Philosophy

Introduction

Migration comes from many causes such as wars, politics and poverty and so on. The reports of the Thai Action Committee for Democracy in Burma (TACDB) propose a problem of the Myanmar-migrated Rohingya. Myanmar denies their citizenship. In addition, in 1948, the Myanmar armforces uprooted them. Hundreds of their villages were burned down and thousands of them were slaughtered which brought them exodus to Eastern Pakistan at that time. Here was the genesis that the Myanmar officers attempted to threaten and expel them in the aftermaths. The emigrant'ssurge by surges flooded to Pakistan and later to Bangladesh (TACDB:<http://www.tacdb-burmese.org>) on account of slaughters and denial of this group without Burmese nationality. The perception was that they were the Bangladeshi-origin Muslim who sought wars and attacked Buddhist temples and Buddhist believers during Burma fought wars with the British. It fuelled vengeance within the Burmese until today. News about the Rohingya death in the sea came from the facts that no countries welcomed them. This issue attracts multination about the perspective of human-human help.

Garrett Hardin proposed that environmentalists compared this world as a "spaceship". They explained that

it includes homes and humans; all should involve with it; and none or any organizations annihilate or pollute it rather than resource sharing. However, the problem is whether each one in this world deserves equal rights to evenly share the resources.

The idealists such as the religious groups viewed that we should share our resources to all even migrants including the help to strangers but this led to some ethical problems contradicting an idea that this spaceship might not have lavish areas as such. It is commonly compared to a rescue spaceship because it is subject to the commands of a captain. No spaceship survives if all make decisions but this world spaceship may not have such captain. Even the United Nations (UN) commands inadequate armforces to coerce its disputing members to calmness.

While we were considering the matter that this world spaceship was without its captain or helpless captain, it led to a problem that who deserved to be allocated these resources. Rationally, victims of disasters should be helped or shared their means of living such as havens, and some meals. It stepped to another problem that how residents of a nation or in the spaceship should react. In addition, if they wanted to help, they should examine the following problems, i.e. (1)the congested size of the rescue spaceship, (2)a territory of a nation accommodates restricted size affordable to their population, and (3)the resource crisis we lost from this helps (Hardin, 2008). With the problem perspectives, we found that there were opinions about help in both philosophy and the Theravada Buddhist philosophy to further synopsise such problems.

The Concept of Helps in Western Philosophy

With the western viewpoints considering helps through debates of equality by Aristotle, it was viewed that humans are equal under the same rule and it is the principle of equality (SurinIntharat, 2008, pp. 35-38). It allows Aristotle views fairness as equality but emphasizes individual. All should have equality with their own rights that all equally earn every sharing. It is the parity from the sharing of health, honor, and safety measured by sentiment and that is acceptance from all (Charles M. Young, 2006).

However, J.S. Mill sees that equality is depended on elements rather than equality with its own values because had it been considered by any rules; it had to be evaluated through utilities primarily emerged with society. Such equality is intangible and cannot be measured by other reasons besides the occurred utility and for the majority

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because when the equality is viewed as a matter of ethics; it should be seen as the matter that all in society should commonly share the consequential utility in order to retain the equality within societies (Mill, 2006, pp. 111-112).

On the other hand, Immanuel Kant found that equality has its own worth within. It is unnecessary to rely on any conditions or any factors. We should be equally treated since humanness is within humans and equality is not only the right thing but also the way to treat humans. The Kant-based ethics emphasizes human values and the idea of justice as equality; they become the critical roots of the ethical rights system. He postulates, "Treat human regardless you yourself or fraternal humans counting that they are the destination in themselves and never count them just as tools" (Immanuel Kant, 1985, p. 47). Consequently, equality is considered under the condition that it is primarily the individual rights or social utility.

An American philosopher like Michael Walzer advocated pluralism and called the ways to build society, which shares a residence and helps each other. Walzer attempted to seek something to propose a status of a policy to prevent migrants, which drew a subsequent question whether cities deserve rights to close down their borders to prevent migrants. His answer was that, it was possible because they hold the authority to the close down their borders as they favored but they couldn't curtain and segregated social from each other or divided the world. They couldn't do that.

The decision of border closure or denial of help was possible but Walzer was comparing the political communities and associations. For example, members in an association might say, "each of us was reasonable, why we who were selected and those who were not selected should not own rights to join." Walzer considered such inference which was unlikely perfect because such status was like a small family. They claimed about the morality to open their home doors not to admit whom they didn't want to welcome them. However, if they were the same ethnicity as they own or had they thought they were the same humans as they were; then they deserved to enter. Such excuses about family were just the better foundation for the migrant policy (Peter Singer, 2008, pp. 394-350).

Developing pluralism was more apparent especially regarding its social solution at the first place rather than just focusing on individuals to own liberty. Had the social truly own equality; it was not just that it saw only itself but seeing it in a common dimension, i.e. the "equality" of the entire world rather than of any individuals or any groups. Such equality should come before the existing liberty of each one. This concept helped to solve the pluralistic problems in societies. Therefore, such problems were to examine the matter of liberty and equality where one should be primarily emphasized. Had each one thought just liberty; all would attempt to secure their own gains or pave alternatives where

one could minimize loss. Such action welcomed selfishness, lulling just about oneself and alienating other who should pilfer advantages from him/her. Consequently, one attempted to exclude them through discrimination and unready to help others but just oneself.

Yet, if we looked at another side, we should find the pluralism endeavoring to (1) see everyone that they were non-alien from the same family. All should own more than liberty and that was equality, (2) believe in humanness of all, and (3) believe that this world is the only spaceship where none should float in the sea because there are adequate rooms for us to help. In addition, had there be problems of difference; then just leave it to the law to identify equality as the social issue at large rather than just only individual liberty.

The concept of Helps in the Theravada Buddhist Philosophy

A hypothesis first required to be considered in the religious discussion was that if the problem began from a group of people living in a safe place and wanted to help those who were in misery; how would it possibly happen? If two groups were considered providing that one group was on the land while the other group was in the water; we might seek ways to rescue them in various ways such as finding wood, life buoy or rope to be thrown out, for examples. And if both groups were traveling in the same cruise ship and meeting a shipwreck; then one group was on the ship while the other group was in water and under the limitations of the rescue ship; then what should we do? The problem we should think before rescue was out of limitations. For example, a ship was possible to accommodate 50 passengers; we could help just only 50 of them and what should we do with another 100 people? Anyone would refer to such moral principles as the Christian-based concept which perceived all as fraternal; or the Marx-based concept seeing their needs and so on. We should take all 150 people on board even the ship could board just only 50 passengers; the ship might sink and all would die. This fairness could turn into tragedy (Garrett Hardin, 2008, p. 338). We all were seeking reasons to the problem that whom should be helped on board and whom should be left floating in the sea. De facto, this world chose the rich rather than the poor, the wise rather than the stupid. To compromise both sides so as not to feel guilty, those who were on board would talk about moralities.

Therefore, calling about the help from social perspectives helped speakers feel good. However, the Theravada Buddhist philosophy digged deeper—helping other with kind spirit and compassion is counted helping oneself (SN.19/361/186). Saving oneself is not just talking or thinking only but doing something too. For example, the case of Phra Paisarn Wisalo, the Abbot of Wat Pa SuKhito of Chaiyaphoom province expressed his most venerable opinions about the situation of solving the problems of the Rohingya abandoned in the sea. His most venerable statement was, "Abandoning friends dead amid the sea is

not the way to do. At the same time to adopt the entire burdens is hard. What we can drive it happens is sharing the burdens among neighboring countries funded by international countries. On the other hand, it requires cooperating from the upstream country to intercept the long-term migration. There are many exits but primarily it is the intention to help them as the fraternal humans and with the consciousness of being humanness (Matichon Online: <http://www.matichon.co.th>).

Offering such help is not the matter of rationalization but the matter of sentiment where all should offer to each other (MN.12/530/405). Perceiving life loving of oneself is equally important to love the lives of others. It is the reflection of kindness in term of equality because such attribute is the one that Buddha equally treats both humans and animals with mindfulness, both the optimists and the pessimists, i.e. Phra Devatas, the archer, A?gulim?lathe robber, R?hulaand Thanab?la the elephant (KN.Ud. 32/8/43). Such equality is critically focused at the mental level only but when individuals still cannot own such mentality, PhraBrahmagunabhorn(P.A. Payutto) (2007) proposes a solution to rescue such different concept named compromise among needs to demand others to level their needs to the one who has reduced his/her needs. This hypothesis comes from reflecting the real human problem which needs of others reduces his/her needs but one must reduce ones too. This might become reluctant, which allows the richer or the wiser just rather talk terms of moralities or rules of practice than any real actions are taken. An example of a journal reports, "The results of the new exploration around the country in the Wall-Street Journal and NBC was shown that concerns and awareness of environments were prevailed except to prevail but not to everyone. The 8 in 10 Americans claimed that they were environmental conservationists. Half of them claimed that they were strong conservationists. The Americans claimed that they were willing to sacrifice to have better environments but what they do were another thing. At the time to really purchase things; many of them were not environmental conservationists as they had claimed. A New Yorker market researcher claimed that many people who ardently concerned and were willing to suffer themselves in order to do something patronizing environments" (Phra Brahmagunabhorn, 2007).

When all parties attempt to recall equality but fail, this is because it is impossible to authentically create equal mentality (Samacita). It is due to the Kilesa (defilement): Ta?h?(desire/lust) which each one owns. The Buddhist principles thus begin with a compromise between lust and self-development. It begins with moderation, - "development without coercion". That's meant it is not to coerce all living things to spend their lives and to seek the same happiness. In the meantime, compromise is applied to each desire who wants those 4 happiness. They have to be related to the focus

of self-development through laws and morality as the control. However, these laws need to reflect on each one. If the person has not yet developed; there must be laws or mandates. If there were the training of development and there were still problems, rules were just the common signs (Phra Brahmagunabhorn, 2007, pp. 166-167).

Consequently, equality began with the free principle, which was the principle of freedom focusing that all own the rights of decisionmaking in every action. A content was claimed that "all animals own their karma, be karma successors, have karma as their origins, their tribes, and their resorts. Karma distributes the bad animals from the good ones" (MN.14/596/292). This content indicated that action or deed causes and enables all to freely choose. Every time to choose creates karma consequence (Vip?ka)-possibly making the good people (refinement) or the bad people (defilement). With such principles, it indicates a human nature that humans always own liberty to choose to do everything.

The above statements are not dogmas. Buddhism uses such concepts in teaching or guiding for all to practice because karma, on the other hand, owns perspectives similar to children working on examination papers which they have to choose between "A" or "B". The tendency to choose by fact is eventually probable between 50-50. However, if the truth is that "A" is right but it does not mean that "B" is wrong. It is just "A" is more correct than "B". Buddhism will reflect that how could "A" be chosen more than "B".

"Building motivation" or "Cetan?" (volition) is the exit from the problem by adding adequate information for decisionmaking to optimize a choice. There are two modules of the motivation or the data, i.e. (1) "Kusala" or "goodness" founded on (a) Alobha or non-greed, (b) adosa or non-hatred, and (c) Amoha or non-delusion; (2) "Akusala" or "unwholesomeness" rooted in (a) lobha or greed, (b) Dosa or "hatred", and (c) Moha or delusion (DN. 11/228/163). Therefore, choosing the most correct one is "Kusala" and the variable leading to wrongly choose is "Akusala". Thus, adding the probability of the Kusala more than Akusala is compared to building the choice for the more correct number.

For example, in the case of Sikkh?pada (precept) on prohibition to touch the woman but if the torrent floods the mother away; the monk does not deserve to touch his mother with hand but should find a boat or a plank or a banana trunk or a log to give her. But when there is no boat, a blanket is possible but the monk should not say, "Mom hold this cloth" or his mother slips and the monk catch hold her hand; he should not abandon her but lead her to the bank. It is remarked that the best thing is not to touch (VA. 1/3/173). This example provides a choice between "A": immediate assistance and no thinking; and "B": assistance with the condition of the not infringing any rules. If the situation is flashing with both deadly torrent and with immediate rescue; those choosing "B" such as reflecting

whether Buddha has modified the infringement for the benefit of kusala or for virtuous cause because any woman who she is either being our mother or our daughter or our younger sister due to being any women; they are all the enemy of celibacy (VvA. 1/3/173). The mother might be taken by the torrent and immediately jumping into the deadly torrent as in "A" might secure her.

However, when the monk chooses as such; it is also the pundit subjectivity, yet the issue is what we are reflecting on helping and must be done on time and helping mainly relies on the driving power instilled in the mind, i.e. Kusala or Akusala. In this case, we may find the answer that the power of Kusala is certainly the key. However, it is heeded that Kusala is earned from what kind of practicing or training, i.e.

1. The Saññ Model: perception-knowing everything as it is. In Visuddhimagga, Phrabuddhakosajaraya compares it like an infant who is innocent. When it sees a silver coin, it knows only the round, thick and hard shape but cannot call it and how to use it. It does not know that the coin is valued and can buy things one wants for eating. Such infancy knowledge is called "Saññ"
2. The Viññ Model: enlightenment-it is the comprehension from learning more like the adult or common people who understand about the silver coin and they can spend for purchasing what they want but they do not know details of what is the real coin and what is the fake coin.
3. The Paññ Model: wisdom-it is the knowledge acquired from education and explicitly understanding details like the artisan who sees a silver coin and knows which one is real and which one is fake, who does it, where it is made and what material it is made of (Phra Buddha Kosajaraya, 2005, pp. 3-4).

When all the three models have been adopted to decide the monk's ministration whether to help his mother falling into the torrent or not. The answers are as below.

1. Reflection on the level of "the Saññ", it aims that the persons for help is a woman according to the covenant that a monk should not touch a woman. The monk concerns on this fact counted that this rescue is improper because the person who falls into the water is a woman and the covenant evidently prohibits. An infringement is to violate the covenant. Then, help is likely impossible if the first model is reflected. However, it eases to clearly judge on right or wrong with the doer and it contributes equality with regards to rules which all co-existing in the Sangha must abide and even the Arahants are not exempted.

However, reflecting this matter requires additional provisions. For example, in the case that Buddha permits monks to foster their mothers who raise them and the statement in Ma?galatthad?pan? which was identified that all children who unlikely disregard laity; they should repay their

former debt with fostering their mother and fathers as such. Fostering should be seen what has been stated called Fostering mother and fathers should be seen as the duty of laypersons and it should be understood that what had been stated on fostering mother and father, monks should not do. Due to, the statement of normally, the religious persons should be free from all debts but in fact, the mother and father should be fostered by any children (Mahamakutrajwittayalaya, 2006, pp. 212-213). The help is thus possible and in danger; they can be helped without delay. All these statements are inscribed in details in the canon or in the Vinya.

In the case of helping others besides father and mother, it is possible in the case of mercy under the principle of contribution and sacrifice. However, it must abide in the stipulation of not overacting until depleting the critical rules. Assistance at this level unlikely takes sentiment surpassing the existing rules as its reference for gaining benefits of the social peacefulness. As in the case of Cakkavattisutta, it inscribed about a king solving problems through contributing treasures to robbers plundering others so that they can adjust them. When people witness the king doing as such; it made people become robbers more. The king later found that contributing treasures was not the way to solve the problem; therefore, he changed into arresting those robbers for penalization (read details in (DN. 11/33-50/43-60). Therefore, rules are possible for so that people, who help, adhere to the code of practice while the persons under assistance are focusing on their self-development rather than awaiting just only assistance.

2. Reflection on the level of "the Viññ", it is the start to reflect more details that this woman is the mother and being her child, there must be affection and commitment. When the mother is in misery; the child has to help with clear duty at this level that the child must by treating his mother with the principles of six directions, i.e. mother and father are in the front and the son must foster them with five statuses which are (1) with the intention that they foster us and we must return their contributions (2) Their affairs must be succeeded (3) The family clan must be retained (4) It needs to behave oneself worth to inheritance, and (5) Upon their death, it needs to do K?lakiri? and dedicate the merits to them (DN. 11/99/144). Being the child responsible for its father and mother; such code of practices is the principle of goodness rather than being the regulations. There are no enforced laws and no punishments if fail to abide. Supremely, in the case of the mother falls into water; even the monk himself has to mainly adhere to the Dhamma principles in immediately selecting to help and not being coded by someone to impose or mandate. It is but the consciousness in Dhamma which might be reflected the principle that "sacrificing treasures to save organs; sacrificing organs to save lives and sacrificing organs, treasures and life to save Dhamma" (Khu.J.1.28/382/99). It

is to build sentiments that rules and regulations are not more important than Dhamma or Virtues. Everybody must do by oneself because what is important to decide to help anyone is beyond any conditions. The more we raise conditions; the more we shall encounter difficulties in decisionmaking. To prove goodness demands to abide by the intention or the virtuous drive and focuses on not losing other people benefits. By practices, they must be evident and direct and it should be the unconditional help and focusing nothing more than helping only.

3. Reflection on the level of "the Paññā", it is the sensitive decisionmaking in the case of witnessing the mother falling into the water. At this level, it is not just the assistance with just righteousness or fairness only but also the benefits which will be consecutively happened. Consequently, the way to help is not just assistance only but also to teach them to secure themselves in the aftermaths in order to realize self-reliance. It is the change of being helped by others into self-reliance. Had it be to help the mother, the monk has to teach her to be more careful or teaching swimming or helping others; they must be taught on self-reliance rather than awaiting help from others. Such a method might be seen applying the rigid way of assistance because of people unlikely favor because normally, people favor begging rather than giving or favoring assistance rather than getting to work by themselves. Therefore, Lord Buddha hints, "I shall not foster you as the potter foster his earthenware so long. I shall not foster you as the potter foster his very raw earthenware. When I pressure, I shall tell; praise, I shall tell. Anyone owning the gist shall stand" (MN.14/356/193). It could be recalled as applying rigid measures. It is similar to the case that PhraKumarakassapa who attempts to help his mother to achieve enlightenment because since his birth she never fosters him. In the Aṅguttara (Commentary), it is inscribed that the tears flow from her eyes for 12 years. She is in misery by her separation from her son. Her face is wet with tears travels to seek nunhood and when she meets him on the road she shouts, "Son, Son and rushes to hold him. She falls with the wet monk robe and she touches the monk. The monk thinks, "If my mother hears sweet words from me; she will be worse. I should speak to her with rough and rigid sounds." Then the monk speaks to his mother-nun, "What are you preoccupied with and just love you cannot detach." She hears this and thinks, "Oh, are these my son's words; he is so rude." She responds, "What do you speak?" The monk speaks the same statements. She then thinks, "I weep for 12 years because of this son but he never owns sympathy but speaks with rude words. Why should I think about him again?". She suddenly turns her back and detaches her love for her son and achieves being an Arahant on that day. The method looks violent and might be found as ingratitude, however, in fact, it is to leverage her self-reliance to her benefit she deserves because, at the end, the best help is to enable one to own

self-reliance rather than relying on other things for dependency. It is similar in helping other-primarily securing them from misery and needed to also secure them to own self-reliance else such help is wasteful or valueless.

Conclusion

About the case of help, the author has reviewed the western concepts critically advocating both liberty and equality leading to help that some groups prioritize the liberty on decisionmaking of everyone but it turns to be that the one having greater power holds the rights over the ones having less power. Help is then the matter of individuals who want to protect themselves. It finally creates selfishness. However, a concept of pluralism has been postulated that all should be socially altruistic by having social agree to accept the same rules for co-existence of interdependence. Similarly, the Theravada Buddhist philosophy agrees with building equality but mentally like Phra Brahmaganabhorn (P.A. Payutto) using the word "compromise" which is to reduce Kilesa (defilement) in ourselves and in others to the acceptable level. This is through enacting laws for human development rather than enforcement. The reflection on the non-enforced principle of help might be focused on cultivating the mind to own Kusala: goodness. It is without greed, without anger, and without delusion through the process of reflecting help under the three perspective frames, i.e. (1) The Saññā Model: perception-the help under imposed rules critically relying on their covenants without infringement and if infringement be; it demands referential data or through debates until gaining epitome or quintessence (2) The Viñña Model: enlightenment-to support Dhamma or altruism neither for oneself nor anyone else; and (3) The Paññā Model: wisdom-besides supporting Dhamma or altruism or righteousness; it is necessary to promote the persons under assistance to enable them to further develop themselves with self-reliance rather than leaving them awaiting forever assistance or help.

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THEME OF ALIENATION IN KIRAN DESAI'S NOVELS

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Abstract:

This paper seeks to offer discussions on Kiran Desai's works in which the writer shows the impact of alienation on the main characters who have experienced the colliding cultures between the two different places. The main characters in the novels have undergone tremendous change in psychological point of view due to alienation effects that made them estranged and its impact results in demeaning the Indian culture as well as its social taboo. Kiran Desai's novels *Hullabaloo in the Guava Orchard* (1998) and *The Inheritance of Loss* (2006) shows certain diasporic concerns like alienation, diversity, minority, post colonialism, multiculturalism, rootlessness and identity crisis. In her novels, Desai dexterously shuttles between first and third worlds, showing the pain of exile, the ambiguities of post-colonialism and the blinding desire for a better life, when one person's riches means another's impoverishment. Kiran Desai writes the saga of the losses of decades, amidst beautiful and globally shining gains of humanity at large, and creates supporting response to colonialism.

Keywords: Kiran Desai, Alienation, identity crisis, post colonialism, diaspora, minority, multiculturalism.

Abbreviation used: HGO (*Hullabaloo in the Guava Orchard*), IOL (*The Inheritance of Loss*).

A literary tradition is reborn, with Kiran Desai. She is daughter of the prominent Indian origin writer Anita Desai, created literary history by being the youngest ever woman to win the prestigious Man Booker Prize for fiction at the age of thirty five. She was born in India in 1971. She lived in Delhi until 14, then spent a year in England, before her family moved to U.S.A. Kiran Desai completed her schooling in Massachusetts. After graduation she joined a writing programme called Hollins in Virginia where she started writing *Hullabaloo in the Guava Orchard*. Then she went to Columbia University to study Creative Writing but took two years off to finish her debut novel.

Desai's stunning second novel *The Inheritance of Loss* set in mid 1980's India on the cusp of the Nepalese movement for an independent state. Kiran has described her own sense of alienation from America even though it is her permanent house now. A member of the Indian diaspora, Kiran's love for India is unlimited. All characters in the novel struggle with cultural identity and the forces of modernization while trying to maintain their emotional relationship. Desai's novel mainly deals with the theme of alienation. The term alienation originates from the Latin

alienus meaning 'of another place or person', which in turn came from *alius*, which meant 'other' or 'another'. This term can be used in different meanings over ages. Long before it was used in the metaphysical sense of achieving a higher sense of contemplation. So alienation is estrangement from other people, society, or work and blocking or dissociation of a person's feelings, causing the individual to become less effective. The focus here is on the person's problems in adjusting to society. Alienation results in people feeling meaninglessness and purposelessness in their lives.

Before dealing with the key-points more fully, a brief presentation of the *Hullabaloo in the Guava Orchard* is needed. This charming story was written in 1998. In an interview Kiran Desai revealed that the story in *Hullabaloo in the Guava Orchard* was inspired by a real event. As she explained:

I started with a very small idea, really. I'd read a story in *The Times of India* and heard about a character from many people, a man who was very famous hermit in India who really did climb up a tree, who lived in a tree for many, many years, until he died. He died last year, I believe. So I began to wonder what it was about someone like this who would do something as extreme as to spend his life in a tree. So it started really with that character, and then the story built up around it.

In *Hullabaloo in the Guava Orchard* Sampath Chawla a twenty years old climbs up a tree after having a serious quarrel with his family because of his bad behavior. He has performed a striptease at his boss's daughter's wedding and thus lost his job at the local post office. This rebellion reveals a sense of repulsion towards social impositions. Kiran Desai makes his main character choose a non-conformist way of life because of what seems-at a first glance-a very trivial reason. Sampath Chawla is a young boy in love with nature, whereas other members of his family care only about social duties and social prestige. To run away and climb up a tree is action which mark forever (both mentally and physically) the distancing from his parents and from the ideas they maintain. It would be total nonsense for him to remain with them and adapt to their parameters. Therefore, from his point of view the absurd idea of living in the tree is the only solution to escape from a too limited world. Indeed, everyone in the story believes that he is a calm, quiet boy who could never dare break the most obvious rules of politeness and good social conduct.

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And yet, for many years, Sampath had hidden in the deepest recesses of his soul a total sense of disgust towards the life his father has carefully prepared for him. Unhappy with his job and with his existence in general, Sampath is an imaginative introverted boy who spends his time contemplating mysterious things in his mind or observing nature in admiration. His inner world is so rich that he is able to turn what is meaningless to others into something magnificent, as this passage demonstrate:

"The room was quite dark, since he had closed both the window and the door so he might conduct his exploration undisturbed. In order to survey himself in all his finery, he lit a candle by the mirror and watched as he metamorphosed into a glorious bird, a magnificent insect. The mirror was mottled, slightly clouded, speckled with age. He felt far away, lifted to another plane" 1

His lack of interest in what society defines as successful achievements (to make a good career and to marry a beautiful wife, for example) deeply offends his father. As he confesses to his wife, talking about their son: "Ever since he was born, this boy has been progressive steadily in the wrong direction. Instead of trying to work his way upwards, he started on a downward climb and now he is almost as close to the bottom as he could ever be". The arboreal route Sampath takes stands for a total rejection of his father's requests and hopes. Thus Desai's story deals with difficult relationships between children and parents.

However, there is something more in the text than a mere conflict between generations. At a deeper level, the story revolves around the theme of alienation. Sampath suffers from a painful sense of displacement. He is different from other people; he has different needs, desires and feelings. The young Sampath Chawla is a rebel and yet, he is so in a different way. His whole existence is endowed with a sense of the supernatural. From this point of view we are now able to achieve a better understanding of the theme of alienation in the story. Sampath's decision to climb up the guava tree in his orchard and never go back is the rebellion his mother could not attempt. From another point of view, it is also the character's achievement of a full coming into being. Only in the tree can he resort to his inner strength and become what he is without being silenced by others. In this sense climbing of trees is a metaphor for the re-discovery of the true self. Trees are primitive symbols of life and the cosmos. Sampath is in contact with the forces of nature thanks to his new privileged position. However, the ways in which he develop his identities and exploit these forces are of a different kind. Sampath is in an almost sacred state of spiritual awakening in which only nature finds a place.

Desai's Booker prize winning novel *The Inheritance of Loss* (2006) manages to explore, with intimacy and insight, just about every contemporary international issues; globalization, multiculturalism, economic inequality, fundamentalism and violence. *The Inheritance of Loss* is a

novel that sprawls across two continents. Set in 1980s India, the novel focuses on Jemubhai, a former judge, his teenage granddaughter Sai and their cook-who live in a rapidly deteriorating house in the north-east Indian town of Kalimpong-and the cook's son Biju who has gone to find prosperity in the United States. The novel also features Sai's neighbours including the Anglophiles Noni and Lola, and Sai's Nepalese mathematics' tutor Gyan, with whom Sai quickly falls in love.

The characters are set against the political turmoil of the Himalayan region. The Gorkha National Liberation Front is fighting for independence, which results in neighbour turning against neighbour. Biju's experiences as an Indian immigrant in the United States provide a contrast to the slow, westernization of rural India. Amidst these global themes, the novel provides a personal insight into the past and present life of each character, and in particular how their individual pasts dictate their present and future. This interweaving of micro and macro themes, expressed in rich and eloquent prose, enables readers to understand the desolate lives of these characters against a wider social, economic and political backdrop. The inheritance of loss is ultimately an exploration of how alienation and multiculturalism and the meeting of the East and West brings change, but not always progress because we are all bound by our past.

The young Biju makes out an existence as an undocumented worker in New York stumbling from one low-paid restaurant job to another, living in seedy squalor with groups of other immigrant men. Poor and lonely in New York, Biju eavesdrops on businessmen eating steak and exulting over the wealth gained in the new markets of Asia. For him, the city's endless possibilities for self-invention become a source of pain. The split identity of the various restaurants where Biju works, projects the split identity of the hybrid character of Biju. The external split of above and below is suggestive of the internal psyche split, not only of different cultural identities, but also of the conscious and unconscious divide of the subject. The pathetic reunion of Biju and his father towards the end of the novel is an ironic commentary on the illusions that postcolonial India cherishes on America as the ideal land of future.

In contrast to Biju who finds himself struggling to survive in the economic capital of the world, Sai, her grandfather and those they associate with are living and illusion of colonial luxury and wealth in the midst of poverty-stricken, politically-tense northern India. Both Sai and her grandfather are products of the colonial education system. Sai had been schooled in an English convent in Dehra Dun up to the point of her parents' untimely death, and the judge had received an ICS scholarship to study law at Cambridge. On first meeting his granddaughter, the judge immediately see this similarity between them: "There was something familiar about her; she had the same accent and manners.

She was a westernized Indian brought up by English nuns, an estranged Indian living in India. The journey he had started so long ago had continued in his descendents" 2.

Both of them, born and bred in India, find themselves practicing a hybridized form of English colonial culture within their own home country. Bhabha suggests that "the unhomely moment relates the traumatic ambivalences of a personal, psychic history to the wider disjunctions of political existence" 3 and this is exactly what happens in Desai's novel. In the encounter with her first love Gyan, she is suddenly faced with the collapse of 'natural' boundaries between familiar and strange, rich and poor, English and Indian and she has to go through a rigorous process to come to some form of understanding of her awkward situation in-between. Sai's unsatisfactory search for a true reflection in the mirror speaks of her initial inability to comprehend the fractured nature of her identity. Like Biju's friendship with Saeed Saeed, Sai's romance with Gyan is the catalyst that affects a loss of cultural innocence and finally opens Sai's eyes, and also Gyan's eyes, to the reality of not only her hybrid identity, but the general hybridized state of the world at large. Although Desai offers us no specific resolution of Sai's situation, we can gather that this process allows her to grow and question the societal norms she finds herself trapped in. It is only once she recognizes this fracture that she is in fact in a space that allows for new perspectives and interpretations of the world, perhaps something close to what Bhabha had in mind with the 'third space'.

Biju does not have a hyphenated identity that is so often the plight of most characters in a diasporic situation. He is completely Indian, the only reason he had come over to the United States was the desire to earn. America was never home to him and he chooses to go back though the homecoming is not the sort that he had ever envisioned. The *Inheritance of Loss* tells the story of two different kinds of diasporas—that of the exploited, illegal immigrants in New York City and an aging, elitist cluster of Indians settled after retirement in a hill town, wonderfully presented in Sai's grandfather, among others. Characters belonging to both these worlds face the challenges of a globalized society that is fraught with increasingly separatist and nationalistic agendas. Desai's novel describes human experience. Biju's narrative as an illegal immigrant, all alone, with no future in distant New York, is balanced by that of the other protagonist, seventeen-year-old Sai, whose life is ostensibly elitist but shabby nevertheless.

And when we come across the character of the judge in Kiran Desai's *The Inheritance of Loss*, we find known reverberation and rumblings of a subconscious whose allegiance is firmly directed to the old-world authorities of a colonial past and yet whose possessor is made to live out a later, almost defunct, career in the postcolonial era of independence. He is a good example of the scores of human parasites who lived off doles and condescendingly endowed

privileges by virtue of passing the Civil Service Examination held in the very political interest of the master class. But the award of a plum post was won at the cost of rooting out everything native from his personal system to become more English than an average Englishman. He develops a crushing sense of defeat and inferiority resulting into a sado-masochistic violence that left him a hated recluse even in his own community. His chosen isolation, his strained efforts in powdering his face white, his fear and hate of his wife Nimi, his sexual-offence within the safe custody of his official home and his abuse of his granddaughter and physical violence against the devoted cook are result of both individual dislocation and historical compulsions. All his misdirected efforts to become what he is not and all his grand personal proclamations against his native identity and tradition leave him mentally paralytic, emotionally blocked and spiritually dead. He unloads the Indian legacy from his being and creates a huge, unfilled personal space. This huge, companionless outer space called the society thus has become a source of genuine fear and this, in a sense, prompts his final retirement at Cho Oyu—a once sprawling bungalow with an elaborate colonial architectural pattern sold to him by a Scotsman leaving for his home after India wins freedom from the yoke of foreign rule. He had violated his wife innocent Gujarati wife Nimi, never assumed his responsibility as the father of a girl whom he accidentally created while engaging in one of those beastly and abusive sexual acts with his hated wife, never enquired after the whereabouts of that girl when as an educated adult she eloped with one Mr. Mistry who was in the air force—and she eloped since "This romance had allowed her to escape the sadness of her past and the tediousness of her current girlish life" - never thought of the cook as any better than a sub-human species, and only felt very much bothered when the boarding school authorities have dumped his granddaughter, Sai at his door when her parents in Russia died most unfortunately while being part of a joint space programme. The only creature he can relate to is Mutt—a dog of foreign breed and very high pedigree—who follows her master, to use another colonial metaphor. The white colour slavery that he suffered in the hands of his English employers makes him embittered. So the judge tried to forget his Indian identity whereas Biju tries desperately to stay as much as possible within his cultural moorings of an Indian birth. His 'Indianness' fails his miserably in America whereas Saeed Saeed, the African man from Zanzibar whom Biju "admired most in the United States of America" forges a perfect compromise between ethnicity and the demands of American urban Modernity. The very Gujarati Harish-Harry, who happens to be the owner of one Gandhi restaurant and who also is the last employer of Biju in New York makes a carefully angled presentation of his halfway identity that wishes to make the best use of the twin worlds of East and West. His Harish-half is perfectly serviceable in a cut-throat, demand-and-

supply market economy with the other Harry-half looking duly Anglicized and customized for a large western clientele who will not feel inhibited in such hybrid naming by their general fear of crude Asian and African violence erupting into the streets of America. In comparison with this, the early episode of the gravy boat with the monogram of an English family, JPP, gave the judge a rather crude thrill of borrowed superiority when he bought it from the secondhand market. Thus he continued to impersonate in the mask of a supposedly English name. The acute problem of identity that he suffered from was borne through this self-deluded game of proxy where he secretly engaged himself in an act of colonial cross-dressing: "He had bought it secretly and hidden it within another bag, so his painful pretension and his thrift would not be detected. James Peter Peterson or Jemubhai Papatlal Patel. IF you please". This seems now tactless and foolhardy compared to the canny survival instincts of a Harish-Harry and many like him who are going to America or other countries and also making it good for themselves.

The small and apparently insignificant township of Kalimpong becomes, in the pages of Desai's novel, a diasporic hub-the Gujarati judge and his cook from Uttar Pradesh, Noni and Lola as two aged siblings, the uncommonly friendly Uncle Potty and his highly Indianised Swiss friend, Father Booty, the garrulous Mrs. Sen, they all show trends of a mostly internal diaspora, the travelling from kingdom to kingdom and state to state in a unique history of human flux, displacement and further settlement. Like Biju, Father Booty, a Swiss national, who goes this type of alienation after a certain period of time in exile. He runs a Swiss style dairy and produces cheese, chocolate cigars and curd for the entire locality. He always thinks himself an Indian. When he has leave Shuktara (his property and home) and back to Switzerland, he in every way loses his faith and discovers himself as a stranger for the first time in his life in a foreign land. It is the complicated moment in Father Booty's life when his thought has started to be changed. He becomes nostalgic and strongly feels for his homeland, Switzerland.

So, for Indians in the West, the changing trends in living are all parts of tremendous diaspora which has been too diverse to be defined in a single essence. Hence the characters from the novel, the judge Jemubhai Papatlal Patel, his father Papatlal Patel and his father-in-law, Bomanbhai, Panna Lal(cook), Nimi, Lola, Noni, Mrs. Sen, Father Booty, Uncle Potty, etc. all generic characters, shows the pain of transition and younger generation like Sai, Biju, Gyan, Mun Mun (Mrs. Sen's daughter), Pixie (Lola's daughter), Saeed Saeed and Harish Harry etc. belong to the different cultural background. Most of characters in this novel searches his

or her own identity and suffered a lot with cultural upheavals. The judge has lost almost everything and his identity. Sai, his granddaughter encounters a dilemma regarding her identity. She can't speak Hindi and is completely unaware of her religion. She speaks English and celebrates Christmas. Biju suffers the embittered feelings of loss during his stay at America where he loses his dream of success and happiness in life. Biju's father, the cook has lost his love and association with his native culture as he feels regret for not being able to serve a white man like his father. So, Kiran Desai who has personally undergone experiences of multiculturalism, cultural clash, displacement and dislocation, presents situations in which characters find themselves rootless and leads a life of loneliness and solitude. The novelist portrays various losses inherited by almost all the principal characters and their search for values, in the novel. A critic Sara-Duana Meyer argues:

"Surely there is a lot of Desai's own experience of moving and living in between several worlds and histories in her second novel that addresses themes like the colonial past of India, the legacy of class and more recent history of separatism, but also migration, economic inequality, hybridization and the question of the nation-less" 4.

Conclusion: Kiran Desai's works specially *The Inheritance of Loss* has superbly dealt with the themes of rootlessness, alienation and death through the characters of her novel in a fascinating style of her own. She has profoundly unfolded the vicious and tragic shades of her themes in a captivating fashion. Desai's rendering of her novels theme of alienation, death and total loss is delineated quite aesthetically in almost every page of the book (IOL). None of the characters whether minor or major seem to gain anything but 'loss' or suffering and loneliness. Places are important in the novel since each character finds himself or herself displaced. Unfortunate circumstances thrust Sai to Kalimpong, Biju longs for home in New York, Gyan joins the insurgency that promises a new state. Sai takes pains to show the cook New York on a globe that had arrived from the National Geographic.

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CONCEPTION OF LOCAL BUDGETING PERFORMANCE INDICATORS STORAGE

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Abstract:

The paper devoted to the collecting, analyzing and publishing performance information in public budgeting with new information technologies applying importance. Its implementation proposed through the concept of using an interactive data warehouse on a countrywide scale with the local budgeting in Ukraine as example case. The model of data storage and using concept has relied on implementation of the local budget programs performance indicators formulated. The scientific and technical conditions of data utilizing described. Proposed model shows the scheme of performance information flows on an example of particular types of the performance indicators, the conditions for their directly beneficial uses are determined; the levels of qualitative and quantitative data composition for the information system were specified. In support of the data storage model conception implementation authors systematized the benefits of budget entity's performance information publicity and its exploit for the further enhance performance information analysis in the multicriteria-based decision-making.

Keywords: local finance, local budgeting, performance indicators, performance budgeting, data warehouse, DID method, MCDM methods.

Introduction

Performance information is a cornerstone of the modern local budgeting worldwide. Citizen-oriented public service budgeting approach is gaining popularity, therefore local authorities should be interested in good image. In addition, public performance information allows the entity to compare own achievements and performance of the neighbors to see the best ways efforts organizing. The performance indicators transparency and usefulness could ensure by their accumulating, storage, inter-active processing and further public reporting by a specialized data storage system.

This paper devoted to the conception of creating such a system and its capabilities. We chose the performance indicators of the local budget programs in Ukraine to describe such a system with a data warehouse utilizing. Performance indicators are set from the standard list of samples in all regions and local budgets for the delegated by the state common functions (services) such as education, healthcare etc., so input data should be easily imposed into an interactive system, be compared and transposed to perform the other types of analysis. Therefore, following these unified indicators, you can monitoring applying of

the budget programs by local authorities, the similar functions at the different local communities providing, compare the homogeneous indicators of the costs in communities and assure the local authorities with actual information about the performance indicators benchmarks over the whole country.

The authors hope that such system will be advantageous for the motivation to efficient public spending and involvement of the all budget process participants in it. The territorial communities will get the new opportunities for making decisions at a new level through the estimation methods for multi-criteria systems analysis in local finances for the local budgeting applying as well.

The performance information estimation necessity

The line of reasons to provide performance indicators collection, Ukraine in particular, gathered below based on the different topics research papers but with the lead question about performance. The first reason is that the budget process participants could increase their consciousness and discipline in general. Performance indicators that can be compared through disclosure by the regions, separate local communities and body executors' types liaise with the mitigation of the problem formulated by Throsby and Withers (1986) about "nonexcludable nature of a pure public good" [1] and the each taxpayer liability weakening in person. Development of e-governance and updated financial infrastructure require an information exchange between citizen and government in order to implement a certain chosen model of the citizens' involving into the budget process, noted by Chadwick and May (2003) [2].

The second reason is the budget body's activity consequences information needs the objectivity and transparency adding. Requirement of the unprejudiced data about the local budgets performance detract the "managerial games" effects with performance indicators had mentioned by Bevan and Hood (2006) [3], when the indicators are have been formulated more for third-party auditors, but not for the helpful assess of the reaching objectives results. Lee et al. (2012) [4] emphasized the exchange of performance information in the public sector necessity to avoid subjective electoral information and its one-sided distortions by the politicians toward citizens. Using benchmarking in the public sector, you can predict the future effectiveness of budget programs or identify effective or inefficient performers from similar institutions in such services as education, health care, social security or governance [5].

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The third reason is a positive pattern and self-motivation for the local authorities. Moynihan and Pandey (2010) [6] have determined that the authorities, in particular the local communities, had been more successful applying of the completed and gathered performance indicators at the budgeting decisions afterwards, because managers had been looking for an efficient actions examples around. This method has been used for target budgeting through the executives contracts for the public goods serving in Denmark, when performance indicators utilized as a markers for identifying the most successful performers and drawing on their experience. Ammons and Rivenbark (2008) [7] highlighted that managers with broad capabilities and deeper understanding of processes are more willing use information about performance indeed: their own inner indicators and indicators from another budget bodies as well. Publishing information at the public network "increase transparency and accountability of the Public Administration and, finally, increasing the trust of people"[8]. Corruption and (or) lack of professionalism midst the government and civil servants could be minimized by increasing of the transparency of provided decision's causes and consequences on the public funds spending, it's an additional important consequence of the performance indicators publication on public.

The features of performance information applying have been identified "as a form of organizational behavior" of the public employees in the constructed by Moynihan and Pandey (2010) model of the performance information use on local authority's example. The authors of the model found that the properties of the information depend on its provision information source. Information sharing in the public sector and the performance information exploitation directly depends on the "leadership/political support for performance management issues, and goal-oriented cultures matter, and that citizen support for and involvement in performance management processes matters", Therefore published performance information has an affirmative impact on the moral grade of the participants, and hence behavior in the public sector in general [6].

The fourth reason is New Public management or Results-based management bring a huge advantage - it sets objectives, despite the disadvantages of technology. The objectives and targets are defined and, accordingly, their achievement indicators are appeared in the multiplied policy papers of many countries. NPM has such essential components as "performance-based budgets, benchmarking, activity-based costing, balanced scorecard"[9], as well as "policy objectives-quantitative ones, such as raising the literacy rate by a certain amount, or qualitative ones, such as correcting market imperfections"[10]. Performance indicators and specific objectives are primarily set by the executor themselves in examined countries, but external centralized control is carried out in different ways: both the responsible executor and the Ministry of Finance, or by

special committees, as well as by the US President or Prime Minister Offices [11]. Performance-based budgeting and performance indicators separated out on the features in researches shows that the combination of objectives, their achievement indicators and current performance indicators allows more efficient the public funds usage by getting rid of inefficient performers and unnecessary expenditures. The legal requirement for public finance transparency and public funds using assessment provided in Chapter 3 of Section 5 of the Association Agreement between Ukraine and the EU. **Example of the performance indicators estimating method**

Consider Ukraine local budgeting experience. Implementation of the local budgets expenditures execution in form of the budget programs in Ukraine cause the executives transition to enlarged responsibility [12]. Local communities with their own authorities and budgets have been established with in the decentralization process. Local authorities got the delegated obligation too. So in Ukraine local authorities mostly lack of experience in devising of the budget programs besides the standard summary of templates provided by central authorities on the delegated functions in addition. The performance indicators data storage suppose the methods of current and final evaluation applying. The maximum global budget transparency is very important.

Today, the local budgets revenues of the territorial communities in Ukraine depend on their fiscal capacity calculation and inter-government transfers (subventions) from the central budget for the infrastructure development during the delegated functions provision, such as education, health care, social protection, environmental protection etc. Amount of this central budget support will construct a financial equalization system that have been depended on the fiscal capacity of the territorial communities in the future. The public services cost will depend on the estimation results of the received and own funds using. So the factor of unskilled management should be eliminated as much as possible to prevent backward tendencies and equalize the fiscal capacities of the local communities.

Performance results of the budget programs are grouped according to typical examples, each of the form has four groups of the performance indicators. The two last groups of the performance indicators are the indicators of effectiveness and the indicators of quality during the year activities within the program boundary. We could observe, for example, the performance indicators that refer to expenditures for energy and water services (utilities). Assembled in the budget programs, indicators of efficiency and quality can be collected in a data warehouse also help to assess the energy saving policy of the local authorities so on to compare utility costs by regions.

An example of the performance indicators is in the table below.

Table 1

Performance indicators of effectiveness - the utility consumption level	The norm indicator (N) in the whole country or in a particular region	Indicator accomplished in the budget program for period 1	Indicator accomplished in the budget program for period 2
Heat supply (H), Gcal per 1 m ³ of heated space	N _h	H ₁	H ₂
Electricity (E), kWh / m ²	N _e	E ₁	E ₂
Water supply (W), cubic meters per square meter	N _g	W ₁	W ₂
Quality performance indicators –the level of savings	Based cost savings for a specific region or the country	Indicator accomplished in the budget program for period 1	Indicator accomplished in the budget program for period 2
The level of heat supply saving (H), %	NE	EH ₁	EH ₂
The level of electricity saving (E), %	NE	EE ₁	EE ₂
The level of water supply saving (G), %	NE	EW ₁	EW ₂

Simultaneously there are the performance indicators of norm for this type of budget entities activities. Let us compare the results of local government energy efficiency policies with declared energy saving measures and without them by regions.

When collecting and accumulating the performance indicators of budget pro-grams in the data warehouse, we can use different methods of estimating the outcomes of authorities implementing these budget programs. As an example, we use Difference-in-Difference estimation described in Wooldridge (2009) publication to evaluate performance data laid in the data warehouse. The DID method allows the data customer to compare homogeneous indicators in a service group over the years and to change the results of using services in the required group due to active energy efficiency policies of the local authorities. The method of comparing the difference in differences shows the changes in energy efficiency occur in each separate region in time. It distinguishes regions with different experiences in order to take into account its impact on the typical change of indicators in the period. The programmed estimation by the groups of typical budget programs indicators by this method focuses attention on the exceptions in the performance indicators of consumption or economy of consumption utilities between the regions. The outcomes of consumption assessing by region could become the presence or absence indicator of the changes to the energy

efficiency in dynamics. Interpreting the results will depend on the tasks and conditions for receiving utilities. "Norm" in using this method can be considered a country-specific norm or performance indicators in any region in relation to which the estimation of the efficiency and quality of consumption utilities complete.

Consequently, we compare the change in the indicators in dynamics between 1 and 2 periods by regions A and B with region C, which in this case appears as "normative". For example, regions A and B proclaim that they are pursuing an energy efficiency policy, while Region C uses energy in the usual way. Alternatively, on the contrary, region C shows the best energy savings projections from the planned ones - does it really overstate the planned performance indicators to get the best savings (quality) in their budget programs?

An adapted sequence of formulas for calculating the difference between the performance indicators of spending public funds in the community, summarizing the impact not only energy efficiency measures, will look like this:

$$\Delta u_A = (I_1 - I_2) - (N_1 - N_2).$$

$$\Delta u_B = (I_1 - I_2) - (N_1 - N_2).$$

$$P_{(AB)} = [\Delta u_A] - [\Delta u_B]$$

where 1 and 2 - periods when the performance indicators done, A and B - finally comparable regions, I - the performance indicator within a certain group, N - the indicator of a comparable certain group from the standard (neutral) region C.

The local budget program's performance indicators data storage model conception

Offered model proposed the continuously updated information system for providing data store with the planned and actual indicators of the local budget programs. Its concept stipulate accumulating the performance information from all local budgets and regions by exploiting any budget program's executing bodies as the first source with the putting performance indicator's attribution together in the dynamics at first. Incoming information will be supplied with the following features: by groups of the local budget programs performance indicators (under current regulations these groups are costs, product, effectiveness and quality indicators), by budget program executors, by functions that these budget programs serve, by types (titles) of budgets and by territories. The information will be stored in a data warehouse where it should be updated in a timely manner and have basis general interactive processing of the input and current data. Output information will be displayed on a special public accessible webpage and will be divided into the outcome of the automatic monitoring and assessment in graphic form as well as data and its analysis according to a specific user's request.

Corrado lo Storto (2014) had rated the websites by "the users cognitive system" [8], let us adapt his inference to the baseline of using performance indicator's website. The

form of information submission will vary for different user groups. For example, the representatives of the authorities need information that will immediately form overall view of the state and local authority's policy implementation. This is, primarily, the rate of planned indicators compliance, strategies benchmarks implementing, a sample of indicators by type in the dynamics with grouping by administrative-territorial units or budgets etc. For analysts and scholars information can be sub-mitted in detail, unprocessed, grouped according to the general criteria if needed: period, level of budget, budget programs objectives, planned and actual performance indicators by groups. For the citizen information should be generalized in graphical form with low detalisation and maximum visibility. These data will serve as an objective source for informing citizens about meeting their individual, special, local needs in compared to other regions and the whole country in general. Therefore, the completed version of data warehouses' website will require the output information sorting into different levels depending on the type of user in the future.

Technical support for the data entry in the proposed model: (i) body's of the State Treasury Service of Ukraine software modernization for collection of periodic reports of the spending unit's actual performance indicators; (ii) information processing, performance indicators data storage, links between the servers with in-formation throughout the country and common software system will furnish by local financial authorities at pattern like of the existing unified e-data portal. The State Treasury Service local bodies will provide actual information on the indicators of budget programs, and program's executors will introduce planned indicators during the development and approval of budget program passports directly in local financial authorities, as shown in the figure below.

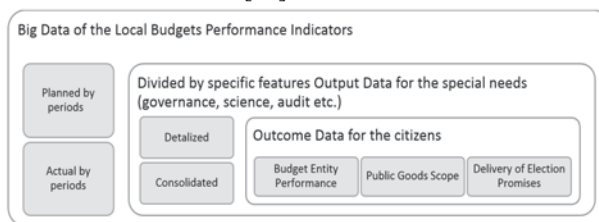


Fig. 1. Flow of information in the model

The software application and the information medium creation for data sequential input by various entities with further processing and obtaining the necessary information on the output was described by Ludwig at al. [13]. Software modules should provide a connection between territorial units, but with the possibility of layout, or switching on only selected functions such as: input, sampling, outputting information on a specified feature without processing, outputting information with the analysis results. The unified webpage need the separately support providing.

The complications of Local Budgeting Performance Indicators Data Storage Model in Ukraine:

1. Should begin with an analysis of simple and unambiguous indicators of budget programs - performance indicators of the costs and product, them could be display in dynamics by type and territory, with the benchmarks given. Only over time, after a weighed revision, recommend to take into account the analysis of qualitative indicators.
2. According to the information dimensions in the accumulation of results reasonably have consider the future system as Big Data in public sector under characteristics [14].



Further analysis and applying of the performance information

The performance indicators are divided (according to the legislation of Ukraine too) into quantitative and qualitative ones. The quantitative performance indicators could be evaluated by comparing them with the averaged indicators or benchmarks for the country as a whole.

DID analysis was applied to local budget programs performance indicators of utility supply among 9 regions in Ukraine. Eight of them had been compared with the 9th capital region indicators of utilities consumption after performance budget programs in 2016-2017. The results of the comparison calculations are shown in the table below.

Group of regions and types of the utilities	DID estimation result for the performance indicators of effectiveness	DID estimation result for the quality performance indicators
1. Heat	0,4	6,6
2. Heat	2,4	3,6
3. Heat	1,1	8,1
4. Heat	0,95	4,6
1. Electricity	6,3	11,3
2. Electricity	1,8	12,5
3. Electricity	6,3	15,8
4. Electricity	9,7	16,1
1. Water	0,07	3,0
2. Water	0,03	9,2
3. Water	0,01	7,4
4. Water	0,04	4,3

A universal user of monitoring data and estimating the contents of the data warehouse will see that the results of the electricity consumption estimate show the greatest really significant deviations aside both the increase in consumption and the economy. Thus, it is the consumption of electricity that local authorities should give the priority in verifying.

Not only get information about performance indicators is important, but also properly interpret it and apply in the future. For example, the number of employees in the authority or the social assistance payment sum per the beneficiary in the community could be compared with the typical indicators for the all communities. Thus, in the list of typical budget programs and performance indicators for the service "Education" [15] the line ministry had approved the quality indicator of secondary and primary education as the number of days the child was in the institution per year, and the product indicator - the number of children. The number of days the child was in the school, at our opinion, measures the product. Moreover, the number of students, lessons (hours) and teachers are an auxiliary indicators for calculating costs. The grade of children success, the teachers qualifications and work experience, the number of students enrolled at University after school could be the qualitative indicators. Therefore, genuine quality measures need the proper development first, but the actual quality indicators should be included in data warehouse and used for monitoring until then.

The qualitative indicators assess can be reconciled with the welfare indicators of the territory. The local authorities need such assessment to implement the most informed and cost-effective decisions. Municipal managers are forced to simultaneously evaluating various options on purpose of making such decisions for many parameters, some of them contradictory, sometimes interference factors on the final decision increase or disappeared at all. Therefore, the decision correctness and efficiency strongly depends on the formed indicators usefulness and the estimating method. The multi-criteria decision making (MCDM) methods will provide the best further estimate under these conditions in our opinion. They allow evaluating and analyzing multi-purpose tasks with utilizing variety criteria combinations. The solution-making process constitutes a system with many inputs and outputs, so method invents criteria in the decision-making. This classical now approach serves a tool for comparing the alternatives in multi-criteria circumstances.

A number of MCDM methods usually assess and rank alternatives in the decision-making process today, and they mostly focused on the future. In this case, the alternatives integral estimation obtain by aggregating evaluations according to the separate criteria [16]. These methods include MOORA, ARAS, SAW, ELECTRE, TOPSIS, COPRAS, PROMETEE I, II, TOPSIS, CORPAS, VIKOR

and others. Each of these methods has its own distinctions, advantages and peculiarities of application that we will consider in our further researches of this topic.

Conclusion

The proposed information system with the data warehouse creates a number of advantages in the performance information utilizing. First, the independence of local government is not violated, but its accountability is ensured. Second, performance indicators collecting and analyzing for a specific period makes possible their quantitative and qualitative composition estimating and adjust it if necessary. Thirdly, the use of modern MCDM methods for analyzing performance indicators in combination with other economic indicators and benchmarks will create new opportunities for researchers in order territorial and public policies formulation. The proposed system is based on only implemented in the regions local budget programs performance indicators because of the unified data. In the future, with the Big Data applying in the public sector, these storage data systems could be extended with the performance indicators of budget institutions, indicators of staff assessment, indicators of economic progress etc. This will enhance the information evidence and its analysis possibilities.

The local budget program's performance indicators storage in form of the interactive data with open access from the moment of its setting in the plan about citizen-oriented services should become an indispensable according to the current rhetoric of the government in the near future. This data store should become the basis for monitoring and benchmarking of the particular executor's results in dynamics and the homogeneous activity of the communities too in relation to, for example, financial provision of health care or state-guaranteed education by the regions.

At the same time it is not necessary to multiply the number of indicators. Perhaps such information system will be an incentive for further rational determination the most necessary information of the budget programs indicators. Performance information should not be overburdened, so subjective internal and external influences must be eliminated. Performance indicators can be efficiently utilized only in case clearly defined targets of activity.

In the absence of informational system, the main risk for the local budgets budget programs in Ukraine is their further formalization, which will not provide adequate information, either the efficiency of budget funds using, or effective management.

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DIGITAL MEDIA AND APPLICATION DESIGN CRITERIA FOR SELF-LEARNING IN RESEARCH METHODOLOGY IN THAILAND

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Abstract

In 2016, Thailand have more than 1 million people concerned with research methodology; university lecturers, school teachers, and graduate students. Enhancing the study in the subject of research methodology to the target groups by providing the ubiquitous digital/electronic media is one of the main aims of the Thailand Research Fund. This research survey to explain the three above-mentioned target groups has been organized to identify their profiles, their preferred smart devices to use, and the preferable design of the digital media used to learn about a particular topic. Using non-proportional quota sampling with purposive sampling, questionnaires from 679 samples were collected from 170 university lecturers, 229 school teachers, and 200 graduate students.

From the survey of the target learners (43.89% use electronic media) the design criteria are: human or human-like presenters; pictures with simultaneous text and sound; cartoon moving pictures with narration; and the length of each topic should be between 30 to 45 minutes. The exercises can be mixed among multiple choice questions, short answers, and matching questions. However, the presentation of each idea must keep relatively short in length of between 5-6 minutes in order to maximize attention.

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Introduction:

The National Research Council of Thailand (NRCT) aims to increase the number of studies and develop the capacity of research and to develop personnel to increase the competitiveness of the country (NRCT, 2013).

The main role of the Thailand Research Fund (TRF) is to assist in the development of researchers and research-based knowledge through providing research grants and assisting with research management (TRF, 2013).

The personnel who are involved in research generally consist of research and development (R&D) personnel, school teachers and university lecturers, and university students, especially at graduate level. The numbers of personnel from the three research involvement targets are as follows.

* **Research and Development (R&D) personnel in 2016:**

The number of R&D personnel from the private sector, other sectors, government, academic, non-profit organization and state enterprise in 2016 was 185,668. (National Science Technology and Innovation Policy Office, 2016).

* **Education Personnel in 2016:**

The number of personnel working for the Ministry of Education in the academic year 2016 can be split across 3 main offices: Office of the Basic Education Commission (OBEC) (478,028 people), Office of the Higher Education Commission (MUA) (150,449 people), and Office of Vocational Education Commission (VEC) (22,130 people) (Office of the Permanent Secretary, Ministry of Education, 2017).

* **Graduate Students in 2016:**

The number of higher education students at graduate degree level enrolled at public and private institutions in the formal school system in the academic year 2016 was 180,418. (Office of the Permanent Secretary, Ministry of Education, 2017).

In 2016, the number of personnel involve in research activities in Thailand from the three groups above was 1,016,693.

In-class training in research methodology is a traditional practice with very high training budgets and time-consuming for both the organizers and the class trainees. Up until August 2018, the NRCT had more than 15 classes for training the trainers in research methodology and 14 batches in the new researchers training (The Association of Researchers of Thailand, 2018).

In order to enhance the learning process in research methodology, innovative electronic media and applications with ubiquitous features (able to be used any time, any where, by any body, and on any devices) that support self-learning would be available via public digital platforms. The main audience groups comprise school teachers, graduate students, and university lecturers.

As a teaching tool, digital media provides a means of communicating fundamental knowledge about any subject. However, when it comes to integrating knowledge with experience and real-life application, digital media cannot be used as a substitute for having real interaction with a teacher and pooling the aggregate experience of a class of students. The practical design goals are fairly standard, widely accepted and have been nicely articulated

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in a pedagogical framework for screencasting (Talbert, 2014). From an experienced series of screencasts on mathematics, the practical design goals include:

- Keep it Simple: Focus on one idea at a time.
- Keep it Short: Keep videos to a length of 5-6 minutes max. in order to maximize attention.
- Keep it Real: Model the decision making and problem-solving processes of expert learners.
- Keep it Good: Plan the video with intent. Strive to produce the best video and audio quality possible.

To produce electronic media which meets the demand of Thai audiences, this research survey has been established to identify biodata, appropriate area of research and the role in research activity, appropriate digital devices and their usage, and preferable designs of electronic media and application.

Material and Methods:

Sample size determination:

To determine the sample size, the researchers applied Yamane's formula (Yamane, 1967) at the level of precision at 95% or sampling error at 5%.

$$n = N / (1 + N(e^2)) \tag{1}$$

Where n is the sample size, N is the population size (total prospect size), and e is the standard error. The total number of personnel involved in research activities from the three sources above (N) was 1,016,693 to quantify the sample size of this study (n).

$$n = 399.84 \text{ or } 400.$$

Sampling technique:

A non-proportional quota sampling was used to allocate 400 samples to the three target population of 200 graduate students, 100 OBEC teachers, and 100 university lecturers.

Questionnaires were distributed to the target population through graduate colleges, schools, and academic events held in Bangkok and other provinces in Thailand. Purposive sampling was used in collecting the questionnaires. The target person that agreed to answer the questionnaires would be considered as part of the sample.

Data Collection:

The questionnaire was designed to meet the objectives of the study, the variables of which are as follows;

- Biodata; sex, education level and occupation
- Area of research and involvement
- Digital devices and their usage
- Preferable design of electronic media and application for research methodology learning including; presentation styles (human or cartoon animation), length of presentation, type of quiz or test.

The questionnaires were gathered from June to August 2018. The graduate students, OBEC teachers, and university lecturers who responded came from 3 graduate

colleges (one private university and 2 government universities), 10 schools (5 schools in Bangkok and 5 schools in Hat Yai, Songkla), and 5 academic events (4 training courses and 1 international conference), respectively.

A total of 679 questionnaires (n) were returned and this number was greater than 400; thus, the sampling error was reduced from 5% to 3.84% (by replacing n and N in equation (1)).

Data Processing:

The questionnaires were gathered in paper-based form by direct interview and Google Forms via electronic mail; the number of questionnaires are 558 and 121, respectively. The paper-based questionnaires were edited and typed into spreadsheet and combined with the spreadsheet from Google Form. The numbers of collected samples are shown in Table 1.

Table 1. The respondents classified by occupation and education level

Occupation	Education Level					Total
	<B	B	M	D	G	
University Lecturers	2	2	61	76	29	170
School teachers	10	123	70	9	17	229
Students Only	2	14	26	1	101	144
Civil Servants	2	17	23	7	25	74
General	5	12	9	8	28	62
Total	21	168	189	101	200	679

Note:

- <B = Lower Bachelor Degree
- B = Bachelor Degree
- M = Master Degree
- D = Doctoral Degree
- G = Graduate students (Both master and doctoral)

The total number of questionnaires was 679 of which 200 were completed by graduate students, 229 by school teachers, and 170 by university lecturers. The 200 graduate students were not only studying (at the time), but they were also working as university lecturers, school teachers, civil servants, and people in general who do not belong to the previous two target groups. The number of university lecturers (170-29 = 141) was 1.41 times that of the quota of 100. The school number of teachers (229-17 = 212) was 2.12 times that of the quota of 100. The samples corresponded to the expected quota in terms of both the number of samples and the target groups.

Survey Results:

The respondents' profiles

The samples comprise 201 males, 478 females, and the proportions by age group are almost the same for both male and female; the total proportions by age group 31-40, <30, and 41-50 are 40%, 29%, and 20%, respectively (as shown in Table 2).

The respondents from the top five research areas and 11 others are shown in Table 3. The top five research areas are Education, Social Science, Business Administration, Science and Technology, and Humanities.

The devices as the learning tools and their learning styles

The devices that the respondents prefer to use as learning tools to access learning sources (as shown in Table 4) are smartphones, notebooks, and desktop computers at 35.35%, 34.46% and 13.11%, respectively. Tablets and iPads are preferred at 4.71% of the time. 7.36% of the respondents used more than one device with the smartphone being the main device and notebook and/or desktop as secondary choices.

The respondents use the learning methods of self-learning using electronic media, joining training courses, and reading textbooks. The details of the learning styles are shown in Table 5.

Table 2. The respondents classified by age group and sex

Age group	Male	Female	Total
number of respondents			
<30	52	142	194
31-40	88	181	269
41-50	40	97	137
51-60	16	43	59
>60	2	5	7
N/A	3	10	13
Total	201	478	679

Percentage

<30	26%	30%	29%
31-40	44%	38%	40%
41-50	20%	20%	20%
51-60	8%	9%	9%
>60	1%	1%	1%
N/A	1%	2%	2%
Total	100%	100%	100%

The preferred design of electronic media in learning research methodology

The expected electronic media for learning research methodology in presentation style, the moderator/presenter, the composition - the combination of text and moving

pictures, and length of time for each unit are shown in Table 6, 7, 8 and 9, respectively.

The preferred moderators/presenters are real human, human cartoons, animal cartoons, and mixed at 23.56%, 27.98%, 5.01%, and 27.54%, respectively. These results show that the respondents prefer human presentation with both real humans or in cartoons or a mix of both. Among the presentations, the contents must have examples to illustrate the topic that is being presented. The details are shown in Table 6.

Table 3. The respondents classified by research area and sex

Research Area	Male	Female	Total
Number of respondents			
Education	34	143	177
Social science	46	88	134
Business Administration	40	65	105
Science and Technology	23	66	89
Humanities	14	28	42
11 others	44	88	132
Total	201	478	679
Percentage			
Education	16.92%	29.92%	26.07%
Social science	22.89%	18.41%	19.73%
Business Administration	19.90%	13.60%	15.46%
Science and Technology	11.44%	13.81%	13.11%
Humanities	6.97%	5.86%	6.19%
11 others	21.89%	18.41%	19.44%
Total	100.00%	100.00%	100.00%

Table 4. The respondents classified by preferred digital devices and sex

code	Devices	Male	Female	Total
Number of respondents				
1	Smart Phone	65	175	240
2	Tablet	6	12	18
3	Notebook	70	164	234
4	Desktop	32	57	89
5	iPad	6	8	14
	1 and 3	8	22	30
	1 and 4		9	9
	1,3, and 4	2	9	11
	Others	12	22	34
Total		201	478	679

		Percentage		
1	Smart Phone	32.34%	36.61%	35.35%
2	Tablet	2.99%	2.51%	2.65%
3	Notebook	34.83%	34.31%	34.46%
4	Desktop	15.92%	11.92%	13.11%
5	iPad	2.99%	1.67%	2.06%
	1 and 3	3.98%	4.60%	4.42%
	1 and 4	0.00%	1.88%	1.33%
	1,3, and 4	1.00%	1.88%	1.62%
	Others	5.97%	4.60%	5.01%
Total		100.00%	100.00%	100.00%

Table 5. The respondents classified by learning methods and sex

Learning Methods	Male	Female	Total
Number of respondents			
Electronics Media	80	218	298
Textbooks	30	53	83
Training course	78	174	252
Learning by doing	2	6	8
Others	11	27	38
Total	201	478	679

		Percentage		
Electronics Media	39.80%	45.61%	43.89%	
Textbook	14.93%	11.09%	12.22%	
Training course	38.81%	36.40%	37.11%	
Learning by doing	1.00%	1.26%	1.18%	
Others	5.47%	5.65%	5.60%	
Total	100.00%	100.00%	100.00%	

Table 6. The presenters

The moderator	Male	Female	Total
Number of respondents			
Real Human	65	95	160
Human cartoons	64	126	190
Animal cartoons	9	25	34
Mixed above	35	152	187
Others		6	6
N/A	28	74	102
Total	201	478	679

		Percentage		
Real Human	32.34%	19.87%	23.56%	
Human cartoons	31.84%	26.36%	27.98%	
Animal cartoons	4.48%	5.23%	5.01%	
Mixed above	17.41%	31.80%	27.54%	
Others		1.26%	0.88%	
N/A	13.93%	15.48%	15.02%	
Total	100.00%	100.00%	100.00%	

Table 7. The compositions

The composition	Male	Female	Total
Number of correspondents			
Texts and sound	34	72	106
Picture, text and sound	95	276	371
Others	2	11	13
N/A	70	119	189
Total	201	478	679

		Percentage		
Texts and sound	16.91%	15.06%	15.61%	
Picture, text and sound	47.26%	57.74%	54.64%	
Others	1.00%	2.30%	1.91%	
N/A	34.83%	24.90%	27.84%	
Total	100.00%	100.00%	100.00%	

The composition of picture, text and sound is the highest ratio at 54.64%, and text and sound is at 15.61%; the rest are N/A (not available). The details are shown in Table 7.

From Table 8, the presentation styles for the digital media are cartoon moving picture with narration, still graphics picture with narration, and cartoon textbook for self-reading at 46.54%, 22.53%, and 12.67%, respectively. The preferred time periods (in minutes) used for learning each topic are 30-45 mins and 45-60 mins at 72.31% and 17.53%, respectively. This question also has an open-ended option for respondents to fill in their preferred durations they wish; however, only 5.01% opted to fill in this choice. The details are shown in Table 9.

The types of exercises or test kits used in the learning media are mixed among multiple choice, short answers, and matching 31.08%, multiple choice 25.04%, case study 15.46%, and answers within the presentation topic 13.84%, as shown in Table 10.

Table 8. Presentation styles

Presentation styles	Male	Female	Total
Number of respondents			
Still graphic picture with narration	65	88	153
Cartoon textbook for self-reading	26	60	86
Cartoon moving picture with narration	76	240	316
Picture with text for reading	6	22	28
Others	22	59	81
N/A	6	9	15
Total	201	478	679

	Percentage		
Still graphic picture with narration	32.34%	18.41%	22.53%
Cartoon textbook for self-reading	12.94%	12.55%	12.67%
Cartoon moving picture with narration	37.81%	50.21%	46.54%
Picture with text for reading	2.99%	4.60%	4.12%
Others	10.95%	12.34%	11.93%
N/A	2.99%	1.88%	2.21%
Total	100.00%	100.00%	100.00%

Table 9. Duration for each topic

Duration (min)	Male	Female	Total
	Number of correspondents		
30-45	139	352	491
45-60	39	80	119
60-90	6	15	21
90-120	6	8	14
Others	11	23	34
Total	201	478	679
	Percentage		
30-45	69.15%	73.64%	72.31%
45-60	19.40%	16.74%	17.53%
60-90	2.99%	3.14%	3.09%
90-120	2.99%	1.67%	2.06%
Others	5.47%	4.81%	5.01%
Total	100.00%	100.00%	100.00%

Table 10. The exercises/test kits

Quizzes/ examinations	Male	Female	Total
	Number of correspondents		
Multiple choice questions	57	113	170
Short answers	10	8	18
Matching	13	18	31
Mixed	63	148	211
An answer is in the topic	19	75	94
Case study	30	75	105
Others	6	30	36
N/A	3	11	14
Total	201	478	679
	Percentage		
Multiple choice questions	28.36%	23.64%	25.04%
Short answers	4.98%	1.67%	2.65%
Matching	6.47%	3.77%	4.57%
Mixed	31.34%	30.96%	31.08%
An answer is in the topic	9.45%	15.69%	13.84%
Case study	14.93%	15.69%	15.46%
Others	2.99%	6.28%	5.30%
N/A	1.49%	2.30%	2.06%
Total	100.00%	100.00%	100.00%

Discussion

Statistical tests against the difference between males and females were not run because the ratio of the categories for each sex did not differ from the total ratio.

Descriptive statistics are appropriate to use in this survey research so as to create a snapshot of the current requirements in developing digital media or electronic media in research methodology for self-learning that match the requirements of the three target learners; i.e., university lecturers, school teachers, and graduate students in Thailand.

Conclusions

According to the results, the digital media that should be developed for specific groups of learners (of which 43.89% use electronic media) are as follows:

- Human or human-like presenters
 - Picture, text and sound simultaneously.
 - Cartoon moving picture with narration.
 - The length of each topic to be within 30 to 45 minutes.
- However, for the presentation of each idea must follow the advice of Talbert (2014) i.e. keep it short; keep videos to a length of 5-6 minutes in order to maximize attention.
- The exercises/test kits are mixed among multiple choice questions, short answers, and matching.

The information obtained from the survey can be used as guidelines to set up the design criteria for the lessons in digital formats.

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ASSESSMENT AND COMPARISON OF JOB SATISFACTION AND MENTAL HEALTH AMONG MALE AND FEMALE TEACHERS

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ABSTRACT

The present study aimed to assess and compare job satisfaction and mental health among male and female teachers. It was hypothesized that the mean scores of job satisfaction would be found to be greater in female employees in comparison to male employees. The mental health of female employees would be good than male employees. In addition there would be significant differences found between the mean scores of job satisfaction and mental health of male and female employees. Furthermore, there would be significant negative relationship found between occupational stress and mental health.

The study was conducted on a sample of 400 employees out of which 200 were male and 200 females (N = 400) of university and college teaching departments of Madhya Pradesh. Personal data sheet, job satisfaction scale and mental health scale were administered on the sample. Data was collected in institutional setting and systematically scored and analysed. Means, standard deviations, t-ratios and correlation were computed. The results supported the hypothesized predictions. They are discussed at length in the full paper.

Keywords: Education, Teaching, Job Satisfaction and Mental health

Introduction

Education is considered to be the most powerful instrument for bringing about the desired changes in the society. It is charged with the twin responsibility of conserving the country's traditional culture, initiating healthy social change and progressive modernization.

The strength of education system largely depends upon the quality of teachers. It is teacher who is most influential as far as the quality of education is concerned. The teacher plays an important role in shaping, moulding the habits, tastes, manners and above all the character of the students. Teacher actively shares her/his responsibility for reconstructing a social order, the values and traditional beliefs, which are being eroded by the surge of new ideas and practices. Teacher is the backbone of the society. Teachers are concerned with mental, physical and spiritual growth of the students

Concept of Job Satisfaction

Job satisfaction is a widely accepted psychological aspect of functioning in any profession. The term job satisfaction has been explained by different psychologists in different ways. But it may conclude that job satisfaction and positive attitude passed by employs towards this job

life. The amount of satisfaction derived from one's present job is an indicator of one's job satisfaction. Job satisfaction is a pleasurable or positive emotional reaction to a person's job experiences. The extent of job satisfaction is measured through different aspects such as work, work place, infrastructure provided, supervision, salary, job security, promotional opportunity, incentives and work encouragement. Job satisfaction has been characterized as the feeling or affective response of worker towards his job or facts there. In this sense then, job satisfaction is an attitude toward one's job. In other words job satisfaction is specific subset of attitudes held by organizational members.

Concept of Mental health

Mental health is a positive concept related to the social and emotional wellbeing of individuals and communities. The concept is culturally defined, but generally relates to the enjoyment of life, ability to cope with stresses and sadness, the fulfillment of goals and potential, and a sense of connection to others. The term 'mental health' is often misunderstood and interpreted as referring to mental ill? health. Mental health is a desirable quality in its own right and is more than the absence of mental ill?health. It is relevant to all people, regardless of whether they are currently experiencing, or recovering from, a mental illness. Mental health is an individual and personal matter. It involves a living human organism or, more precisely, the condition of an individual human mind. A social environment or culture may be conducive either to sickness or health, but the quality produced is characteristic only of a person; therefore, it is improper to speak of a "sick society" or a "sick community." Standards of mentally healthy, or normal, behavior vary with the time, place, culture, and expectations of the social group. In short, different peoples have different standards. Mental health is one of many human values; it should not be regarded as the ultimate good in itself.

Review of Literature

Job satisfaction has been the most frequently investigated variable in organizational behaviour (Spector, 1997). A plethora of studies have examined job satisfaction in the post secondary education context (McBride, Munday, and Tunnell, 1992; Niidt, 1996; Oisen, Maple, and Stage, 1995; Sanderson, Phua, and Herda, 2000; Tack and Patitu 1992; Tang and Talpade, 1999; Truell, Price and Joyner, 1998; U.S. Department of Education, 2001; Valadez and Anthony, 2001; Wergin, 2001). This proliferation of research has focused attention on the need to understand

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job satisfaction as it relates specifically to postsecondary faculty.

Ogresta, Rusac and Zorec (2008) identified predictors of burnout syndrome, such as job satisfaction and manifestations of occupation stress, in mental health workers. The study included a snowball sample of 174 mental health workers in Croatia. The following measurement instruments used were Maslach Burnout inventory; Manifestations of Occupational stress Survey and job satisfaction. Stepwise multiple regression analysis showed that pay and rewards satisfaction ($\beta = 0.37$), work climate ($\beta = 0.18$) advancement opportunities ($\beta = 0.17$), the degree of psychological ($\beta = 0.41$), and physical manifestations of occupational stress ($\beta = 0.29$) were significant predictors of emotional exhaustion ($R = 0.76$; $F = 30.20$; $P < 0.001$). The frequency of negative emotional behavioural reactions towards patients and colleagues ($\beta = 0.48$), psychological ($\beta = 0.27$) physical manifestations of occupational stress ($\beta = 0.24$), and pay and rewards satisfaction ($\beta = 0.22$), were significant predictors of depersonalization ($R = 0.57$; $F = 13.01$; $P < 0.001$). Satisfaction with the work climate ($\beta = 0.20$), was a significant predictor of lower levels of personal accomplishment ($R = 0.20$; $F = 5.06$; $P < 0.005$). Generally, both dimensions of job satisfaction and manifestations of occupational stress proved to be relevant predictors of burn out syndrome.

Low job satisfaction among mental health workers has also been confirmed by some studies conducted in United Kingdom and Canada, while several studies have shown exactly the opposite, i.e., that there is a high degree of job satisfaction among employees in these professions. Exposure to occupational stress leads to psychological and physical reactions, the intensity and form of manifestation of which depends on personality traits and environmental factors. The most widespread manifestations of occupational stress in helping professions include emotional exhaustion, depersonalization and dehumanized perception of the patient, absenteeism, damaged physical health and reduced personal satisfaction. Studies have shown that, compared with general population and other professions, social workers suffer from relatively high level of anxiety and depression related to their profession (Colye et al., 2005, Ljubotina, 1996, Ajdukovic et al; 1997, Ogresta and Rusce, 2007). Ajmi (2006) explored the effect of gender on employees' perception of job satisfaction and organizational commitment in Kuwait. The study was conducted on 436 employees (213 females and 223 males) in five Kuwaiti government ministries.

Singh (2007) studied the effects of stress on job satisfaction and work values among female teachers of secondary schools and found that stressed and dissatisfied teachers had less attachment with their institution and less dedication to their profession. Kumar et al. (2008) revealed that job satisfaction depends on the individual expectation,

needs and values of an individual. If a person is satisfied with his job, his mental health is intact, he delivers quality inputs and there are various other advantages.

Mehta (2012) concluded that there would be significant difference in the level of job satisfaction of Government and private school teachers. Galgotra (2013) founded that government school teachers possess good mental health in comparison to private school teachers and sex has no effect on the mental health of teachers. He also concluded that job satisfaction has an effect on the mental health of the teachers. Behera (2014) revealed that there was a positive relationship between job satisfaction and mental health of mainstream school teachers.

Aims and Objectives

The main objective of the present study was to assess job satisfaction and mental health among male and female employees and to make comparisons with regard to gender. The hypotheses formulated for the present study are based on reviewed literature and logical reasoning. They are as follows:

1. Job satisfaction would be found greater in female employees in comparison to male employees.
2. The mental health of female employees would be good than male employees.
3. There would be significant difference found between the job satisfactions mean scores of male and female employees.
4. There would be significant difference found between the mental health mean scores of male and female employees.

Tools

Personal data sheet termed Vyaktigath Prasnavali was used to gain personal information, job satisfaction Questionnaire developed by Kumar and Mutha (1975) was used to assess job satisfaction and mental health scale developed by Kamlesh Sharma was used to assess mental health level of teachers.

Sample Method and Procedure

Sample

The study was conducted on a sample of 400 employees out of which 200 were males and 200 females of university and college teaching departments of Madhya Pradesh. They were matched on age socio-economic status, working status and education. The age of the subjects ranged from 30 to 55 years with a manger of 43.7 years. All the subjects hailed from upper middle class. They were university and college teachers engaged in teaching profession in higher education. The selection of sample was based on purposive sampling.

Method and Procedure

The sample of 400 university and college teachers of Madhya Pradesh were administered the Vyaktigath Prasnavali (Personal Data Sheet) teacher's job satisfaction questionnaire developed by Kumar and Mutha (1975) and

mental health scale developed by Sharma to the subjects one by one in institutional/home setting after the consent of the subjects. They were tested individually. An interval of 5 minutes was given between each scale. The instructions printed on the scale were read aloud by the investigator. If there were any doubts, they were cleared. As instructed the subjects filled the scale/questionnaires, after proper rapport establishment. They were informed about the confidentiality of their responses and ensured that the information would be used for research purpose only. After the completion of all the scales/questionnaires, the subjects were thanked for the cooperation given by them.

Results and Discussion

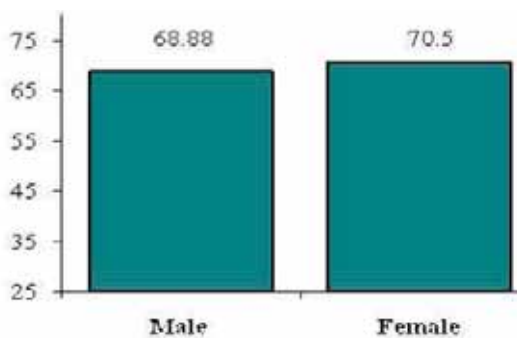
The data was subjected to statistical analysis. Means, standard deviations and t-ratios were computed in order to get a clear cut picture of the results obtained from the data collected and test the hypotheses formulated for the present study. They are presented systematically in Tables and Graphs.

Table 1 Showing the job satisfaction and mental health mean scores of male and female employees.

S.No.	Variables	Male		Female	
		Mean	SD	Mean	SD
1.	Job Satisfaction	15.62	2.06	17.08	2.70
2.	Mental health	68.88	3.86	70.50	4.90

Graph 1 Showing the male and female job satisfaction mean scores.

Graph 2 Showing the male and female mental health mean scores.



The results presented in Table 1 and Graph 1 shows that the overall mean score found for job satisfaction are greater in male than female employees. By looking at Table 1 and Graph 2 the mental health mean scores are found to be higher in female employees than male employees. Thus the results indicate that job satisfaction was found to be high in female teachers than the male teachers. In addition mental health is found to be good in female employees in comparison to male employees (See Table 1, Graph 1 and 2).

Significance of difference between the means was computed between the mean score of male and female employees for job satisfaction and mental health variables in order to ascertain the significant differences between the two groups. Table 2 Showing the mean difference SEMD, t-ratios and level of significance between the male and female mean scores for total job satisfaction and mental health.

S.No.	Variables	Mean Difference	SE _{MD}	t-ratio	Level of Significance
1.	Job satisfaction	1.46	0.22	6.63	Significant at 0.01
2.	Mental health	1.62	11.41	3.76	Significant at 0.01

By looking at Table 2 it is evident that the male and female employees differ significantly on job satisfaction and mental health variables. As stated earlier the mean score of job satisfaction is found greater in males in comparison to females and mental health mean scores are found to be higher in females in comparison to males.

It was hypothesized that job satisfaction and mental health would be found to be greater in female employees in comparison to male employees (H1 and H2). The results supported these hypothesized prediction. The job satisfaction means score for female was found to be 17.08 whereas for males it was found to be 15.62. The mental health mean score of females was found to be 70.50 whereas for males it was found to be 68.88. The results depicted in Table 1 indicate greater job satisfaction and mental health possessed by female employees than their male counterparts.

It was hypothesized that there would be a significant difference found between the job satisfaction mean scores of male and female employees (H3). The results supported this hypothesized prediction. The t-ratio yielded significant value (t-6.63, p<0.01 level). Several studies support the findings of the present study. Reddy (1981) reported in his study that women teachers are more satisfied with their jobs than their male counter parts. The similar findings have been reported by investigators like Belleasco and Allutto (1972). Pernard and Kulandreil (1976). Anand (1977) and Khatton and Verma (1982).

Many researchers have done studies regard to the influence of pay on job satisfaction (Luthans, 2006; Taylor and Vest, 1992; Robbins, 2004). Luthans (2006) claimed that apart from helping people to achieve and obtain their basic needs, salaries also work to satisfy the higher level needs of people.

The results showed significant difference between the mean scores of male and female employees regarding

mental health variable. In the present study it was hypothesized that there would be a significant difference found between the mental health mean score of male and female employees (H4). The t-ratio was found to be 6.63 $p < 0.01$ level.

Earlier researchers have come up with gender differences related to physical and mental health. Osipow et.al. (1985) suggested that as people age and gain in experience and status within the organization, they appear to take on additional responsibilities and consequently experience an increase in job demands. Dua (1994) for example found that staffs above senior level are more stressed because of higher workloads. Furthermore, Winter et.al., (2000) found that associate professors are more likely to experience role overload than academics employed at lower ranks. Role overload again has been found to be a salient stressor in academic work-life (Fisher, 1994, Tease, 1999).

Limitations and Suggestions

Nature of work no doubt is an important variable which needs due consideration in social science research. The data was collected on male and female teachers of Universities/Colleges. This study could have been done on employees working in different organizations and cross comparisons could have provided more worthy results. The demographic variables like age, marital status and socioeconomic status were not studied in this research.

Mental health was studied but physical health was not taken into account in this research. The investigator feels that physical ill health might have indirectly influenced the results. The social variables and personality variables were not taken in relation to variables studied. Personality plays an important role (Type A and B personality emotional competence and self esteem). Big five factors also are important and need to be studied in addition family environment and social support are important covariates that might have been either potential, moderator or independent risk variables.

Conclusion

It can be concluded that gender differences are found in relation to job satisfaction and mental health. Female employees experience more job satisfaction and good mental health in comparison to male employees.

University and College is the highest seat of learning. The working conditions provided are good in comparison to higher secondary schools and other organization of public and private sectors. A pleasurable positive state from their job experience is experienced by teachers. Their personality is satisfied and overall they are committed to their work.

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TALENT MANAGEMENT PRACTICES AND ITS EFFECT ON ORGANISATIONAL PERFORMANCE

*Sushma Tiwari & **Sunil Kumar Tiwari

ABSTRACT -

This paper examines the ways to retain the best talent and to develop the process of attracting and retaining the employees. This paper examines that employees are agreed with organisational policies & plan related to employees career growth, benefits, values, work culture & international opportunities towards talent management. Sample area- Mahanadi Coalfields Limited Orissa. The result shows that 70% of the employees strongly agreed to Companies will be able to analyze, plan, forecast and execute business plans based on accurate workforce and market data. It means most of the respondents are strongly agreed from Organisational policies and plan towards the talent management.

Key Words- Talent, Talent Management, Employee Engagement, Employee Retention, and organizational performance

Introduction -

Talent is an instinctive quality possessed by few people, who have the capability to make a significant difference to current and future company performance, which is equal to competencies of a person that needs to be explored for the competitive advantage of the organization. The modern organizations realized that their success is dependent on how they are able to attract, develop and retain the right talent for the organization that enable them to be successful in the competitive business environment, It's very much required to proactively anticipate and meet the demands of talent to meet the goals of the organization.. According to Leigh Branham, vice president, consulting service at Right Management Consultants and author of the book, "Keeping People Who Keep You in Business", a talent is not rare and precious. Everyone has talent too many to possibly name all. Talent is behaviour; things we do more easily than the next person. We speak of "natural born talent" but those with a gift, knack, ability or flair for something can refine and develop that talent through experience. Talent, however, cannot be taught.

Literature Review-

Despite the fact that we are inundated with definitions of the concept of talent, there are no clear and explicit ones. Most researcher and writers differ in defining the concept of talent management. Some have linked the terms to direction and orientation and others to fashion, urbanization, and creativity. Talent management means several things. Tansley (2011) considers it as the integration of a range of innovative initiatives with tried and true activities, which include the spirit of community. Pruls (2011) sees it as a set

of practices, activities and functions of human resources in organizations, which include selection, development and career planning. Moreover, Bllonas (2009) states that talent management is one of the most important functions of human resources, which plays an important strategic role. In addition, Ingram (2013) argues that talent management is the process of attracting and preserving talented people.

Objective of Study -

- * To examine the plan based on accurate workforce and market data.
- * To know the employee development programme.
- * To study the company provide benefits to employee.
- * To know the satisfaction level of employees from the benefits policies.

Research Methodology -

- * Sample Size - 100

Data Collection -

- * Primary and Secondary

Data Analysis -

- * Percentage Analysis
- * Sample Area-Mahanadi Coalfields Limited Orissa.

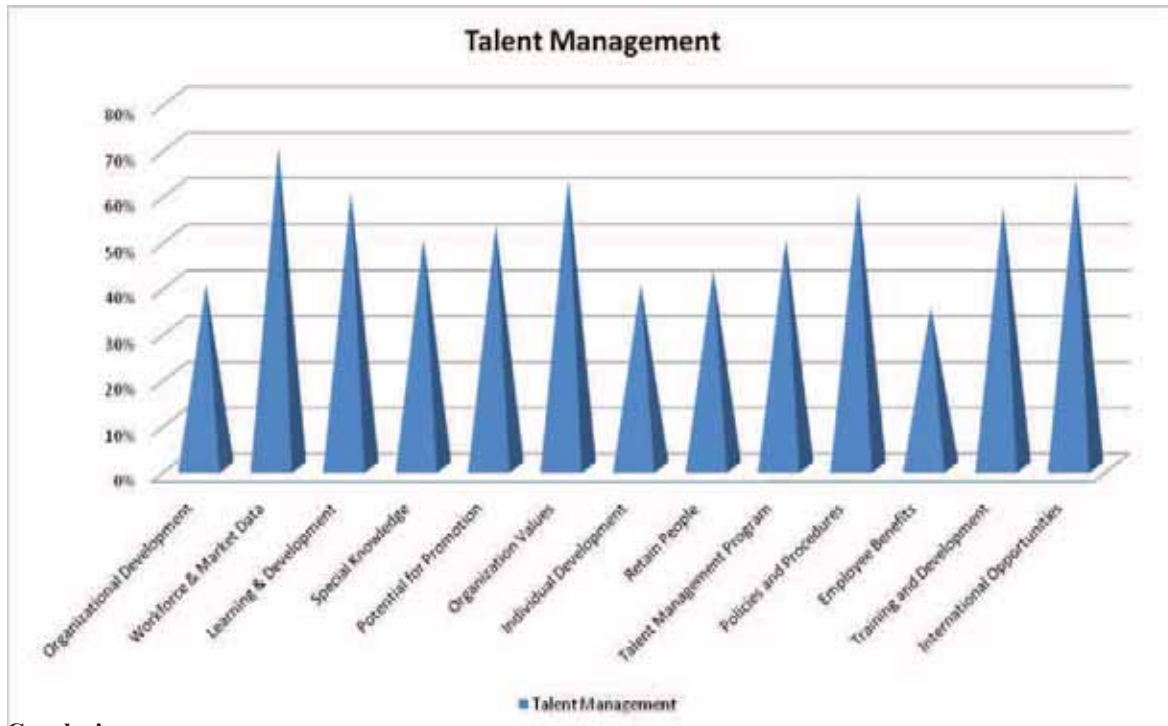
Findings -

- * Maximum respondents(70%) of strongly agreed to Companies will be able to analyze, plan, forecast and execute business plans based on accurate workforce and market data.
- * Maximum respondents(60%) agreed to employee development are ensuring continuous informal and formal learning and development.
- * Maximum number of respondents (50%) agreed the organization identified individuals who possess special knowledge of value to the organization.
- * Maximum number of respondents (53%) agreed to the organization assesses individual potential for promotion.
- * Maximum number of respondents (40%) strongly agreed to Talent management involve individual and organizational development in response to a changing and complex operating environment
- * Maximum number of respondents (40%) agreed to organization systematically retain people in the organization.
- * Maximum number of respondents (50%) agreed to organization evaluate the results of the talent management program against the measurable goals of the program.

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- * Maximum number of respondents(63%) agreed to the organization assess individual values as they compare to the organization's values.
- * Maximum number of respondents (60%) aware of their policies and procedures. .
- * Maximum number of respondents (57%) benefited further training and development program.
- * Maximum number of respondents (63%) are apart from financial benefits, employee emphasis more on career growth, work culture and international opportunities.
- * Minimum number of respondents (35%) are agreed to satisfy their employee benefits polices.



Conclusion -

In conclusion all modern organisation have realized the importance of attracting, developing and retaining their talent to survive in competitive market. It is talent management that enables the organization in improving employee engagement, commitment, retention, value addition that is leading to improved organizational performance. Most of the respondents strongly agreed about to Companies will be able to analyze, plan, forecast and execute business plans based on accurate workforce and market data, the organization assess individual values as they compare to the organization's values and apart from this also provide financial benefits, employee emphasis more on career growth, work culture and international opportunities but some of respondents agreed to organization systematically retain people in the organization.

50% of the employees agreed to organization evaluate the results of the talent management program against the measurable goals of the program. It starts with recruiting and retaining talented people and continues by sustaining the knowledge and competencies across the entire workforce.

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FAMILY, HONOUR (GHAIRAT) AND THE FEMALE EXPERIENCE

Jowairia Umeruddeen

In this paper, "Family, Honour (Ghairat) and the Female Experience", I will be examining how the concept of family and honor have been socio-politically constructed in the deeply patriarchal society of Pakistan and how these impact upon the female experience. I have analyzed *Blasphemy*, a novel by Tehmina Durrani as a source to support some of the statements I have made in this paper. Tehmina Durrani first published work was her controversial autobiography *My Feudal Lord* (1991). *Blasphemy* is her next major work. Set in south Pakistan, the novel is inspired by a true story. *Blasphemy* is an utterly shocking story which uncovers and exposes the ugly faces of powerful people. Tehmina Durrani's *Blasphemy* tells the fictional yet true story of the beautiful Heer. The protagonist, Heer, like most teenagers her age has her own dreams and aspirations. Influenced by the movies she has watched and the romantic books she has read, Heer awaits true love waiting for her prince charming to arrive. However, Heer's widow mother gets her married at the age of fifteen to Peer Sain. Peer Sain is a man who is greatly revered. He is considered to be divine by his followers and seen as the connecting spiritual link between God and ignorant people. Though Peer Sain is several years older than Heer, the marriage is fixed. For Heer's mother this marriage is a way to redeem her own status and honour in the society.

Heer enters her new house with great expectations hoping to find love and respect. However to her utter shock, what follows is a series of torture, both physical and emotional. She is beaten, humiliated, abused, raped, entrapped and forced to live in accordance to her husband's whims. Heer soon discovers that the nightmare she is locked into is not hers alone; it affects the entire clan that owes allegiance to the Pir. In the Pir's haveli, unspeakable horrific crimes are perpetrated every day and every night, all in the name of Allah. With every passing day, Heer finds herself sucked into the hell of her husband's making. Gradually, Heer loses her dignity, her freedom, even her humanity, till a horrific incident compels her to resolve to give her back to herself.

The gender roles, identities and relations that make up the conventional family as a social unit came under criticism and scrutiny in western feminism of the 1970s and onwards. Most feminists felt that it was within this space, unheeded by the world outside, where patriarchal laws were upheld in the most primitive form. Feminist scholarship has shown this social arrangement to be a part of patriarchy's oppressive regime. Feminist analyzed the family in two ways: first as a social arrangement and second as an ideology that

communicates a preferred form of organization which is internalized by all, including those most victimized by it. Family operates in such a way that gender stereotypical roles are reinforced. Pir Sain being the leader of a Shrine exercises his power by using violence in order to maintain his authority and assures the subjugation of the women in the haveli. Rajaji, the son of Heer, internalizes the same ideas of violence and learns early on how to use the same in order to reinforce patriarchal constructed gender identities.

Blasphemy could be read as viewing the concept of family from a woman's perspective. Heer's problem of being a woman starts at the level of family. Her family thinks nothing of marrying her off to an elderly Pir Sain all for the sake of regaining their lost social status. As a member of Pir Sain's family she's relegated to the status of a sexual slave in her role as a wife. As a mother she is allowed to have very little say in the upbringing of her own children. As a social being, she's ironically seen as the upholder of the honor of this very same family. By narrating her life's details, Heer gives the reader a woman's view on the ideology of family.

Another ideology which the novel deals with is the notion family honor or Ghairat. Ghairat is an Urdu word that means honor or pride. There is no universal definition of ghairat. It roughly means a sense of being bound to or entitlement to certain customs. If an individual, females in particular are found to be going against these customs, they are seen as having defiled their family or community's ghairat. This concept of honor is a signifying element of the Pakistani feudal society as depicted in this novel. In Pakistani society, feudal mindsets ensure that people generally are quite possessive about their ghairat to the extent that they can kill someone who defiles it. This killing and inflicting of violence in the name of honour is referred to as "honor-killings". The victims of such crimes in all cases are women. Honour killings involve the killing of or inflicting violence upon a relative, who most often than not happens to be a woman because they are perceived to have brought dishonor upon the family. Such perceived dishonorable behavior can take many forms as the term "dishonor" can be interpreted in many ways. These include infidelity, refusal to submit to an arranged marriage, marrying someone the family disapproves of, demanding a divorce, being raped, or even going out without a male guardian.

The Pakistani government in 1990 enacted a law that gave a man the right to, at any time, kill his female family members such as his wife, daughter, sister, following the

code of the ghairat honor killings. However, in 2004, under immense international and national pressure, the government of Pakistan was compelled to pass a counter law that made ghairat honor killings punishable offence. The punishment varied from serving a prison term, or the death penalty. However, the effectiveness of this reformed law is uncertain, since a person found guilty of having committed a honour killing may still go unpunished by providing monetary compensation to the victim's family instead. The efficacy of the law is further weakened by the fact that in many cases of honour killing, the victim and the accused are from the same family. The civil code cannot and is not, allowed to encroach on the inner space of the family, thus ensuring that the accused can go unpunished by simply seeking forgiveness from the victim's family.

The concept of honour killings can be understood through the deeply entrenched concept of male guardianship. Women are viewed as property within the social, political, economical and religious contexts of the Pakistani society. In addition to this, majority of Pakistan's tribal regions are semi-autonomous and are often influenced by religious fundamentalists. This makes it difficult to enforce the 2004 laws. Women in Pakistan thus are the victims of systematic violations on the basis of their gender, as is evident specifically through such discriminatory laws.

Even after the move towards urbanization in the last 30 years, Pakistani society remains largely a feudal and patriarchal society. In Pakistan, the honor of a man as in an Arabic expression lies between the legs of women in his family. Any attempt to break free or break away from the shackles of this system could lead to death. Hence, not surprisingly the Human Rights Commission reported that 675 women have been killed in the name of honor alone within the first nine months of 2011 while in 2010, the figure stood at 791.

Pir Sain seems to practice two different faces of patriarchy, the public and the private, in order to control women. Setting different standards and concepts of honor for males and females, he expects the women of the haveli to comply with these socio-cultural norms to ensure the family's and the shrine's honor. He uses violence as a recognized tool to control the women's sexuality and to maintain an upper hand in gender-power relations. Blasphemy exhibits how female servitude contributes to and enhances male honor to the extent where honor of the male is viewed as the honor of the entire family unit or clan. Therefore, any act committed by the female that goes against or challenges male supremacy directly, or damages it indirectly is unforgivable in patriarchal society. The concept of honor is time and again used to subordinate Heer and silence her and other women and to justify violence against them. The ideology that a daughter is the torchbearer of her father's (and brother's) honor is what forces Heer to suffer silently. Openly talking about marital problems would only

bring disrepute to the husband and his family in a strictly conservative Pakistani society. The female identity is constructed through the ideology of family. By linking the concept of family honor with female subjugation, family emerges as a patriarchal tool of oppression in the female experience. Heer's experience of her family life is as that of a torch-bearer of honor. She marries for the sake of her family's honor. She silently suffers for the sake of her husband's honor. Her entire life revolves around her silent subjugation in order to uphold this honor. Heer has to lose her dignity, her independence, even her humanity to an extent, in order to survive. It is only when she decides that she wants to break free from this fetid hell of her husband's making, she fights to give her back to herself. But her revolt is met with disdain and disbelief from her family. Her son having internalized the same patriarchal values sees her as a disgrace to the honor of the family. Her daughters too do not offer much support and instead try to coax her back into her old shell of silence and subjugation. They are yet another example of how the victims of patriarchal power structures often perpetuate the tool of their own oppression.

Blasphemy raises questions about the family being a "private sphere", which remains more or less a taboo topic to be discussed in public in Islamic patriarchy. Family as a concept is still appealed to in all debates about the erosion of social values. The ideology of the family' is utilized to effect by Pir Sain in order maintain his power. Despite carrying out innumerable violent crimes on women and children of his own family, he does not fail to use the same concept of family when he wants to be seen as the protector of conventional family structures from the forces of change. The bonds of kinship make family life potentially more repressive for women like Heer. The female experience becomes more sordid and complex when their immediate kith and kin view them as objects rather than as individuals. So called family and the spaces within family become problematic in the female experience, with no external interference, any law or otherwise which challenges can be of help to a woman.

Several years have gone by since Pakistan passed its first law allowing ghairat or honor killings. This fact directly reflects that there needs to be responsibility from the international and national laws to protect women from any physical and corporal harm, and thus in turn to protect women's rights as human rights.

Tehmina Durrani, through her act of writing, narrating Heer's ordeal, is thus articulating the female experience. This is a way of resistance against the patriarchal power structures. Through Heer and her story, Tehmina Durrani draws attention to the real issues of subordination and oppression of women in Pakistan. Openly writing about a topic whose public debate is considered taboo in a strictly Islamic patriarchal society she tries to expose the Pakistani ideologies and its perceived notions of family and honor.

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