

## The Behavioural Economic Perspective of Looking at Distress Migration: A Case Study

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### Abstract

*Distress migration is a socio-economic issue which has perennially attracted the attention of policy makers, planners, researchers and the media all along. Besides some other anomalies, the most backward KBK region of Odisha has been witnessing the problem of distress/forced migration for quite a long time now. The standard socio-economic theorizing has pinned on the dominant presence and applicability of the traditional push-pull hypothesis in explaining the very nucleus of the problem. But of late, the behavioural dimensions of migration decision making has started staring at the archaic push-factor dominated hypothetical undertone. Moving deep into the core of the monster brings forth the inherent presence of behavioural factors like emotions, cognitive biases, perception-based exclusions and own identity in the overall societal structure of the probable migrants. This study has adopted a direct interview method of collection of primary data from the Balangir district and has used various statistical methods like descriptive statistics, info-graphic analysis of the problem, rank analysis, emotional intelligence scale of measurement, logistic regression and so on to disentangle the behavioural factors influencing the decision to migrate. The study also includes one section on the quantitative beneficial impacts of distress migration in the same study area i.e. the KBK region of Odisha.*

**Key-words:** Distress Migration, Cognitive Biases, Emotional Intelligence, Push-pull Hypothesis, Perception and Identity.

**JEL Code:** O15, D9, O18, O58.

### 1. Introduction

Migration is a concept of mobility which is a very familiar concept to everyone. This phenomenon is not specific to human beings alone but it is also associated with different species of

animals. Migration is the movement of population from one climatic location to another climatic location. Therefore, migration plays an important role in over valuation and devaluation of population. There are many reasons which lead to make decision to migrate but majorly all the factors are divided into two category one is push factor and another one is pull factor of migration. People migrate within the territory and beyond the territory so majorly migration was categorised into two types one is internal migration and another one is external migration. Internal migration refers to movement of people from one location to another location within the country and external migration, also known as international migration refers to the movement of people from one country to another country.

“Migration is a fundamental aspect of human existence. As we know that movement of one place to another place for resettlement for some predictable period of time is known as migration but all forms of movement are not migration. In spite of fact that the migration associated with social, cultural, political and some personal reason but migration for economic purpose attract attention of academicians as well as policy makers. Meanwhile, livelihood considered that economic purpose is not only a primary reason of migration but it also occurs due to different social and cultural reasons.” (Ellis, 2003).

India is a nation having high migration rate in recent modern time period and now a days India is one of the top sources of international migrants. “India experienced a major increase in migrants from the neighbouring countries during the beginning of 21<sup>st</sup> century due to different political and economic reasons.” (Sammadar, 1999, p.29).

India is an agrarian country where most of the rural people are engaged in agriculture and work as labourer. If agricultural failure happens in these areas people are forcedly moved to cities or developed states to earn income. Rural people are distressed migrants and they are migrated as temporarily or seasonal basis with the hope of getting good income to enhance their living standard.

In India poverty, lower wage rate, small land holding, unemployment etc. are the major push factors that forces rural people to move towards urban cities which increase the urban population of the country as well as urban slums in the country. So, these are the main push factors of migration which leads to increase the internal migration in the country. Those who have migrated as a skilled person with better job do earn good amount of money income and having enough capacity to fulfil their dreams.

“In India census period of 2001-11, more than 5.65 million people are migrated annually and about 45.31 crore people who are almost 37% of total population are migrant and more than 80% migrants are males. Migration rose to 4.5% per annum in 2001-11 from 2.4% in 1991-2001.” (Srivastava, 2011).

Odisha is known for its poverty where most of the rural people migrate to urban areas due to poverty. Most of the seasonal labour migrants are from Odisha who generally move to the southern part of the country. It is known to every concerned that the most backward region of the state is the KBK region of Odisha. Seasonal migrants mainly migrate to Andhra Pradesh and Telengana to work in brick kilns. Temporary or circular migrants of Odisha majorly moved to developed cities like Mumbai, Chennai, Bangalore, Raipur and Surat etc.

“The numbers of migrants migrating to other states of the country are increasing rapidly. In 2007 more than 55,000 workers migrated to other state. In 2015 1.46 lakh of workers left Odisha and migrated to other states. In 2008, around 87,000 workers left Odisha as seasonal migrants to other states and it increased to 1.05 lakh in 2012, 1.2 lakh in 2013 and 1.35 lakh in 2014. And the maximum number of migrants those who migrated to other states 2015 were from Balangir district which was 45,000 migrants.” (Praharaj, 2017).

Odisha is a poor state where most of the rural people's incomes are lower than the same of other states' people. Further, most of the rural migrants are mainly from the schedule tribes and schedule castes. As these communities of rural Odisha belong to the lower economic strata and they struggle to get work opportunities at high/medium wage rates, they have no other options than to migrate to other developed state in search of gainful employment opportunities.

Poverty and lack of employment opportunities put rural poor in a situation of distress. Hence, very often such type of migration is also termed as distress migration. Though they are hardworking labourers, they are devoid of any skills as they are illiterate or do possess very negligible level of education. Therefore, they get employed in various unskilled jobs and get exploited physically and economically too. Being uneducated and poor they are not able to move out of the country, but they migrate to nearby states or growth centres or cities. They may migrate seasonally or temporarily. Seasonal labour migration refers to the movement of labour from one place to another place for a specific seasonal time period. Seasonal migration is very common in India as agriculture is almost the only occupation in rural areas and agriculture being a chiefly monsoon dependent activity, there happens to be a lean season in these areas. Temporary migration refers to the movement of people from one place to another place not for a fixed time period but for a predictable time period. More often temporary migration is associated with international migration when people move to another country with some work permit for a definite period of time. States which have more outmigration rate are Bihar, Jharkhand, Himachal Pradesh, Chhattisgarh, Mizoram, Nagaland and UP. This phenomenon also is common in some backward districts in the western part of Odisha like Kalahandi, Balangir, Nuapada etc. Usually it happens during winter season.

## 1.1 Why is Migration Important?

Migration is nothing but the movement of people from the source to the destination and it has different synonyms like relocation, resettlement, population movement etc. Migration is not a new phenomenon but it has been occurring since very beginning of human's appearance on the earth. Migration is a broad concept which means movement of population from one climatic location to another climatic location for a particular period of time or permanently. This phenomenon is not specific to human beings alone but it applies to animals, birds as well as plants. Migration occurs within the boundary of a nation, or beyond the borders or in simple words we can say migration occurs at local level, regional level and international level.

There are different definitions of migration given by different thinkers and researchers, and one of the simplest one is that: "Migration is the movement of population from one climatic location (place of origin) to another climatic location (place of destination) for a particular time period"

Migration is a selective process and it can be voluntarily chosen for new and better opportunities, or forced to escape from dangerous or negative situation. The factors like development of industrialisation and means of transport & communication, interaction of different cultures, Globalization, etc. have led millions of people to move out from one place to another in search of better opportunities related to better living standards, education, employment, healthcare facility etc.

Migration also acts as a third factor of population change after fertility and mortality. Being one of the important components of population change, it occupies a central place in demographic analysis.

People tend to move out of their natural environment or place of origin when it fails to provide them with sufficient opportunities to grow. Migration is fostered by inequalities in the development of different regions.

Migration is widely recognised as one of the major mechanisms of development. It helps in maintaining some balance between distribution of resources as well as population. Migration is both a cause and consequence of various social, cultural and economic constraints as experienced by people in a society or beyond the society.

## 1.2 The Push & Pull Hypothesis-Is it still relevant?

The factors that serve as driving forces for migration may be put under two categories namely pull and push factors. We can define push factors as negative home conditions that imply the decision

to migrate or force people to leave their homes e.g., lack of job, drought, lack of professional opportunities, overcrowding, famine, war etc.

Besides the push factors there are also pull factors working from the side of the destination. Important pull factors which attract workers towards the destination are availability of job opportunities, better wage rates and urban amenities and facilities available at the work place.

Although the push and pull factors are operative in propelling forced migration in the backward KBK districts of Odisha, there are no research studies undertaken so far to understand the individual-centric issues related to the attitude and behavioural patterns of the migrants. There is ample scope of research to judge the role psychological and subjective factors play in driving people out of their home to work outside. This may not be included under the push factors rather could be categorised as subjective decision making problems on the demand side of the whole issue of distress migration.

Thus, it is imperative to look at the entire recurring episodes of distress migration from the psycho-social and psycho-economic perspectives. Hence this particular study is oriented towards the analysis of the behavioural economic dimension of rural distress migration. Once we look at the problem from the behavioural economic angle, a serious question arises in our minds about the meaningfulness of distress migration despite its picturization in a demonic way.

### **1.3 Meaning of Distress Migration from the Perspective of the Migrants**

Distress migration refers to movement of rural people from one climatic place to another place due to reasons like lack of employment opportunities, natural resources depletion, poverty, food insecurity, environmental degradation, failure in agriculture etc. These aspects majorly come under push factors of migration. This type of movement mainly arises from such places where individual or the family feels that except migration there is no option for them to survive with dignity. So, from above description one common characteristic is that decision to migrate is prompted and conditioned by limited alternative opportunities available at the place of origin.

Distress migration is particularly seen among rural people and factors like poverty and lack of employment opportunities put rural poor in a situation of distress. For most of them, making decision to migrate is not a voluntary choice but only perceived action for getting employment to meet their needs and to take them out of the clutches of poverty.

In India, lack of work opportunities, low wage rates, small land holdings, agricultural failures, natural calamities like drought, floods etc. are the major push factors that force the rural productive folk to tend towards urban areas which increase the urban population as well as urban slums in the

country. It is known to everyone that India is an agrarian country where most of the rural people are engaged in agriculture. If agricultural failure happens in these areas people are forced to move to the nearer cities or developed states to earn a livelihood.

In general parlance, migration is broadly divided into two types; one is internal migration and another one is external migration. But it can be noted that flows or pattern of distress migration mainly occur internally because most of the rural migrants are illiterate and not having enough financial strength to migrate beyond the national borders.

#### **1.4 The Behavioural Economic Approach to the issue of Distress Migration**

One of the most important aspects associated with distress migration that has not yet been looked into is the behavioural economic dimension of the problem. It is high time we shift our focus and orientation from an over emphasized supply side to the most relevant demand side of the problem. When we address the issue from the micro theoretic behavioural attributes of the individual migrant a different picture is expected to come to the fore.

The standard neo-classical economic theorization has over emphasized on the reality of an optimal solution with the help of a number of unrealistic assumptions. But the fact of the matter is that once we take away the assumption of rationality or *Homo Economicus* from the analysis the result is a situation of *bounded rationality*. To be more specific, the problem of bounded rationality is based on a variety of real life constraints like information asymmetry, limits to information, irrationalities of different degrees and kinds, dogmas and superstitious believes and perceptions. Meaning thereby, due to such irrationalities human beings vie for and arrive at a satisfactory solution instead of a solution of *Pareto-optimality*. In the words of Herbert Simon, bounded rationality leads to “*satisficing behaviour*” which is an economically sub optimal solution.

The bounded rationality aspect of a sub optimal satisficing level solution is also applicable to the case of individual migrant while making a choice and decision regarding migration from home to an outside place of destination. Looking at the problem from this perspective, the capability of a migrant labour in making a right decision is very important to understand the whole psycho-social and psycho-economic domain of the migration decision. The highly important and relevant dimension of distress migration can be seen and researched from the behavioural economic perspective, which includes various real life aspects like emotion, identity, attitude, motivation and happiness of the individual migrant. Thus, the issue of distress migration which is a major problem especially in the KBK districts of Odisha can be seen from the behavioural economic perspective.

## 1.5 The Identity Perspective of looking at Distress Migration

The entire migration literature has centred on the propositions of the push and pull hypothesis. There is no denying the fact that distress migration as such has many things associated with the push and pull factors operating in the Indian context. But a micro-theoretic approach towards the study of distress migration reveals a different fact all together. An enquiry into the demand side of the problem brings forth behavioural dimensions to be seen from multiple angles.

The neo-classical economic paradigm has mostly emphasized on the supply side of the problem with the assumption of rationality or *homo economicus*. On the contrary, the modern *New Classical doctrine* has a different story to tell about the crisis associated with distress migration. The behavioural economic dimension does have a major say as far as forced migration is concerned in the backward region of Odisha. Within the broad framework of the behavioural economic dimension, identity of the migrants acts as a dominating force. In other words, the decision to migrate is a choice problem on the part of the person who prefers to migrate out. Therefore, the identity perspective on the demand side has to be considered seriously while analysing the problem of distress migration.

From the behavioural angle, identity of an individual can be incorporated into the utility function and through that a satisfactory outcome is expected to be accomplished. The concept of identity is multidimensional in nature and has been rooted in the domains of sociology, anthropology, economics and psychology. Being a normative concept based on subjective inter-personal utility consideration, it has got close qualitative inter connections with different dimensions of an individual's decision making. The four important dimensions are:

1. Identity related economic decision based on a person's own action.
2. Identity related economic decision based on someone else's action.
3. Identity related economic decision depended on third parties' actions.
4. Identity related economic decision as a part of own choice but not as a part of societal choice.

## 2. Review of Literature

Sharma, S. and Sharma M. (2010) tried to describe the role of different moderators and mediating factors which lead to Psychological well-being. Variables are like social identity, psycho-social attributes or self. The study found out that people deprived majorly in terms of Gender identity, Devalued social identity and acculturation. According to Gender identity in the workplace if a woman engaged in a man job than it puts impact on the male identity. Threatened social identity describes the

identity related exclusion of socially devalued groups (Defines in terms of minority category, caste, and race). And the stress of acculturation generates during the process of readjustment in a new cultural environment.

The main objective of Deshingkar, P. (2010) is to describe the relationship that exists between chronic poverty, migration and remote rural areas. The study is based on both qualitative and quantitative data. The study has found that migration is a major happening mostly in RRAs (Remote rural areas) and Schedule tribes and Schedules caste people are majorly associated with chronic poverty.

Parida, J.K. (2015) tried to describe the role of MGNREGS in enhancing rural poors' living standards and its impact on seasonal distress migration. For the study, primary data was taken into consideration. The study found out that MGNREGS plays important role by providing or creating job opportunity for rural poor. Government schemes to some extent lead to prevent the seasonal distress migration.

The main objective of Bhugra, D.(2019) in his article "Migration, Distress and Cultural Indentity" is to describe the stress of acculturation that a migrant faced at the place of destination. The study has concluded that during the process of readjustment of migrants in a new cultural environment a stress is generated which is known as stress of acculturation and due to this stress the first generation of migrants faced numerous problems.

Sharma, S. and Jaswal, S.(2006) in their paper "Migration and Magnitude of psychological Distress" tried to describe the magnitude of psychological distress associated with migrant labourers. The study was purely based on primary data. The study stated that psychological distress was more among the migrant labourers than the normal or local labourer.

The study conducted by Bhagat, R.B. (2015) on trends of urban migration in India has found that urban migration was in a declining rate between the census years 1981 to 1993 but after 1993 it was in an increasing rate pattern.

Also important studies are made by Mahapatra, S.R. (2010), Samantaray, L.L. (2016), Agasty, M.P. (2016) on female migration, reverse migration and impact of migration on children education.

### **3. Objectives of the Study**

This particular study on the behavioural perspective of distress migration is based on the following four important objectives-

1. To ascertain the impact of distress migration on the quantitative dimensions of wellbeing of the migrants.
2. To explore into the role played by qualitative behavioural factors in the decision making by the migrant workers.
3. To analyse how psycho-economic factors enter into the picture when a migrant takes decision to leave his homeland in search of a livelihood.
4. To assess the relevance of the traditional push-pull hypothesis as far as the decision to migrate by an individual migrant is concerned.

#### **4. Hypothesis of the Study**

$H_0$ : In terms of the quantitative dimensions of wellbeing, distress migration decision is beneficial to the migrants of the study region i.e. the KBK region.

$H_1$ : Instead of the quantitative push factors, the qualitative psycho-economic factors are influencing migration decision highly as far as an individual migrant is concerned.

#### **5. Methodology of the Study**

A scanning of the available literature on distress migration has so far indicated towards the Push-Pull Hypothesis as the prevailing paradigm in explaining the reasons for the forced migration. Studies are not available on the behavioural dimensions of the whole issue of distress migration. If we make a cursory look at the way the behavioural economists are approaching individual-centric problems at the micro level, there is ample scope for analysing the problem in terms of the interplay of psycho-economic factors in decision making. Viewing the problem from the behavioural perspective brings forth the importance of identity-related behaviour as far as the decision to migrate by an individual migrant is concerned.

Keeping in mind the emergence of the identity-related behavioural perspective of distress migration in mind, this study is based on primary data collected from the migrants who have come back to their villages during the time of covid-19. For this study 100 migrants were contacted directly through the use of a structured questionnaire. The covid-19 protocol and guidelines of the government were followed scrupulously while collecting primary data from the field. The migrant workers from the hot bed of distress migration i.e. the undivided Bolangir district of Odisha were selected. The

migrants who have been included in this study belong to the Sonepur district (previously a part of Bolangir district) and adjoining areas of the Bolangir district of Odisha.

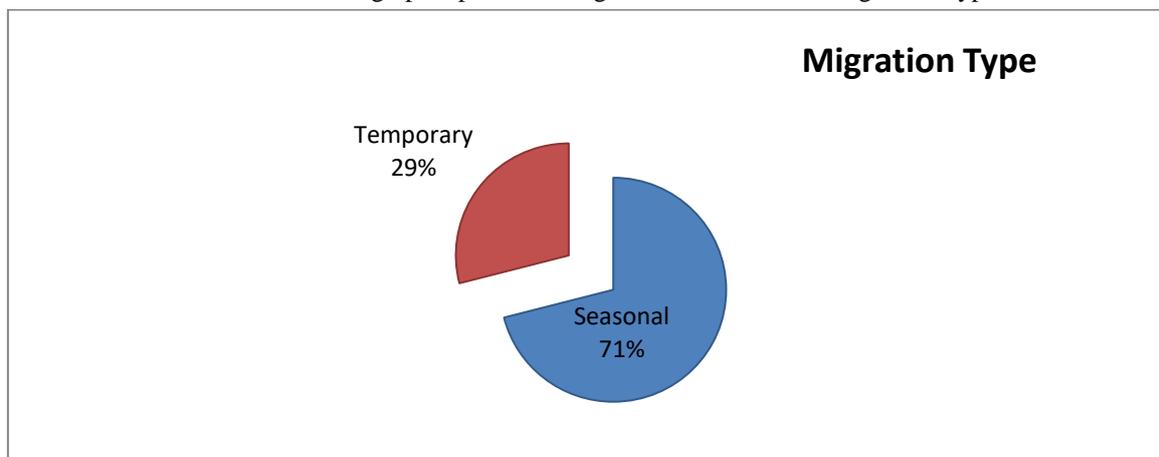
Since this study is based on the behavioural economic dimensions of the problem of distress migration, the questionnaire includes demographic questions, questions for measurement of emotional intelligence (EI) of the migrants, questions on identity related behaviour and perceptions of the migrants. Although the EI questionnaire is the standard one as prescribed by the experts from the field of Psychology, it was subjected to necessary checks as regards the validity and reliability of the questionnaire.

For analysing the data as per the objectives and hypotheses, efforts have been made to ascertain the qualitative dimensions of migrants' perception on various aspects of identity, exclusions and emotions. A number of psycho-economic dimensions have been included in the study to look at the problem from the angle of behavioural economics. Various statistical methods like descriptive statistics, rank analysis, perception measurement and logistic regression analysis have been used to get an overview of the whole issue of distress migration from the perspective of new classical behavioural economics.

## 6. Analysis and Interpretation of Data

A thorough analysis of the data collected and processed revealed different qualitative or psychological dimensions of the problem of distress migration. The demographic profile of the sample is presented below for obtaining a clear idea on the scope and applicability of the study at hand.

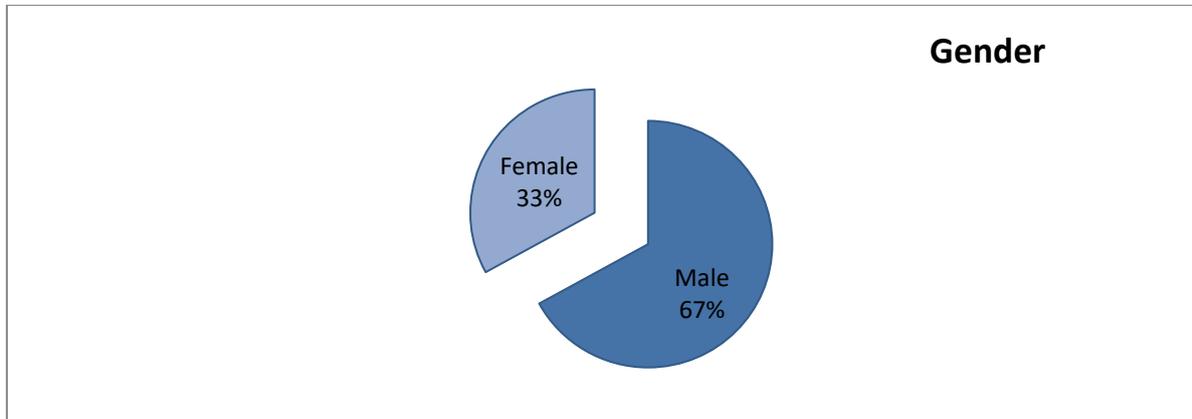
Chart no.1- Demographic profile of migrants on the basis of Migration Type:



Source: Compiled from Primary data

From the above pie chart it can be seen that 71% of migrants are seasonal Labourers and remaining 29% migrated on circular/temporary basis. It implies that seasonal migration of distress type is highly prevalent in the study area that is the KBK region of Odisha.

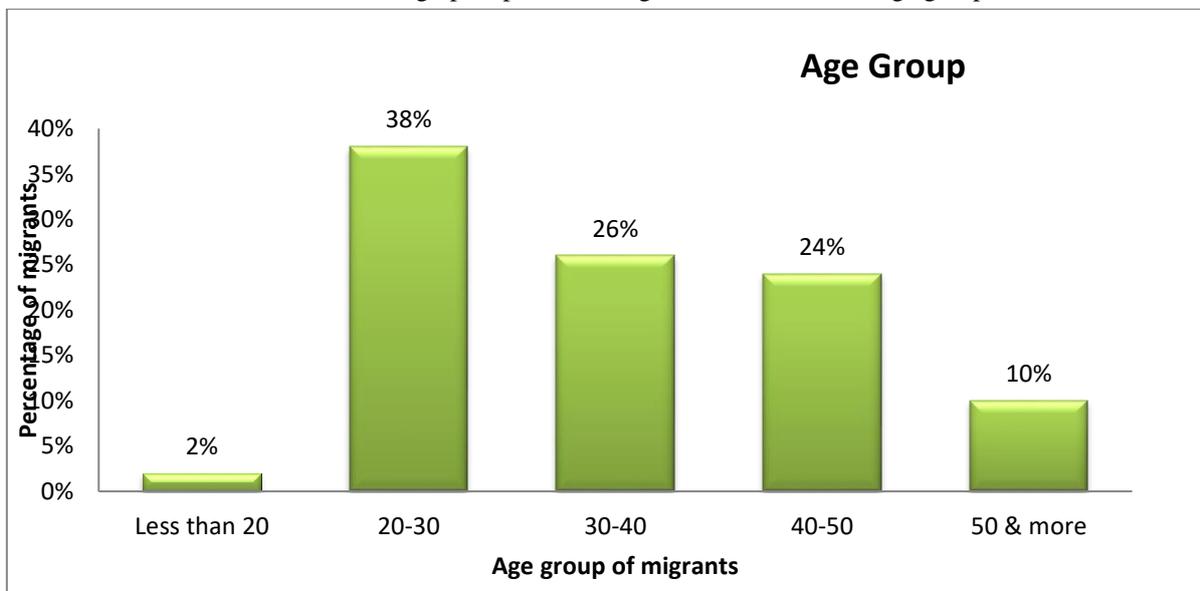
Chart No.2-Demographic profile of Migrants on the Basis of Gender:



Source: Compiled Primary Data

Chart no.2 shows the demographic profile on the basis of gender where 67% migrants are Male and 33% migrants are female. It implies that males constitute the bulk of migrants out of the KBK region of Odisha.

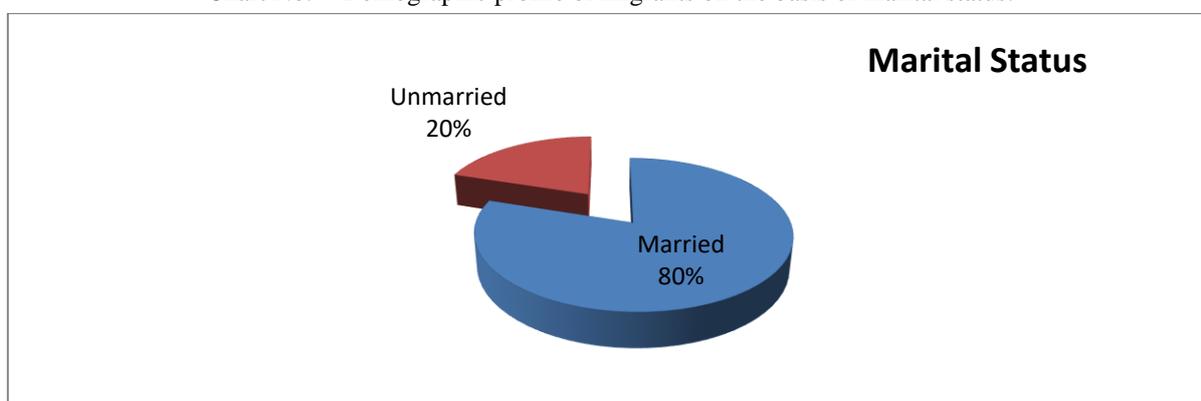
Chart no.3- Demographic profile of migrants on the basis of Age group:



Source: Compiled from Primary data

Chart no.3 shows the demographic profile of migrants on the basis of age groups where 38% of migrants belongs to age group of 20 to 30 which is highest among all. This result shows that youths are the biggest group of workers who are going out in search of employment outside their homeland in the KBK region of Odisha. This is also indicative of the recent trend of how youths are withdrawing from agriculture in this part of Odisha. Withdrawal of youths from agriculture is a national phenomenon now but such a trend in the poverty-stricken backward areas like the KBK region is compounding the problem of migration with mounting pressure on the employment situation of the state. Agriculture is getting harmed and is going to be affected in a big way in the days to come, which may further aggravate the food insecurity situation in this part of the world.

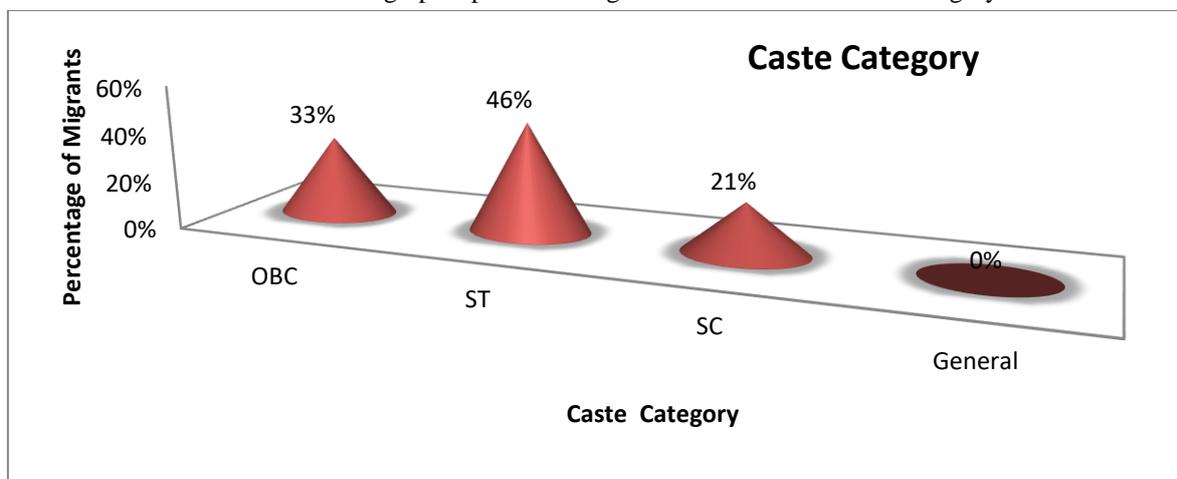
Chart No.4- Demographic profile of migrants on the basis of marital status:



Source: Compiled from primary data

Chart no.4 shows the demographic profile of migrants on the basis of marital status where 80% migrants are married bringing out the fact that married persons are migrating more which is clearly understandable.

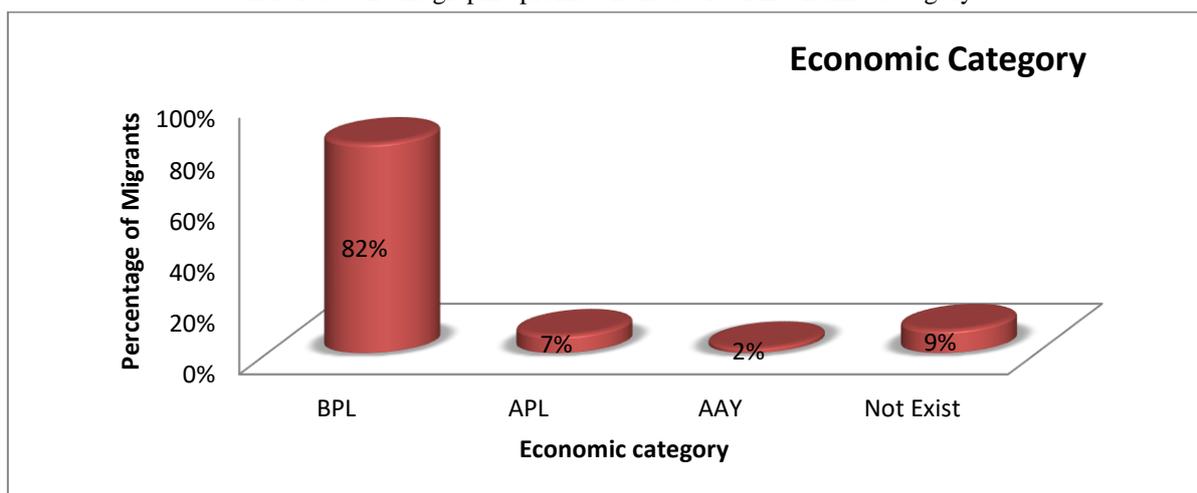
Chart No.5- Demographic profile of migrants on the basis of Caste category:



Source: Compiled from Primary Data

Chart no.5 shows the demographic profile on the basis of caste category where 46% of migrants are ST category, 33% are OBC category and 21% are SC category. Needless to mention, people belonging to the poverty-stricken backward categories like ST and SC are migrating out in large numbers out of the KBK region of Odisha. Push factors do play a role here but there are behavioural issues which must not be lost sight off, being hooked into the traditional approach of looking at distress migration.

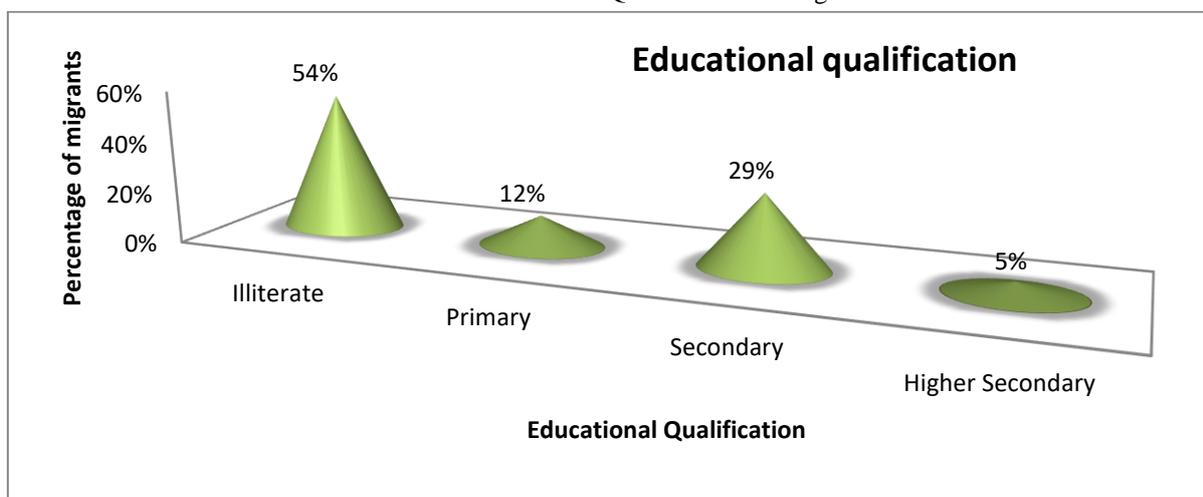
Chart No.6- Demographic profile on the basis of Economic Category:



Source: Compiled from Primary Data

Chart no.6. Seeing in terms of economic category, 82% of migrants are BPL card holders, 7% migrants are APL card holder and 9% migrants are having no card of any types. It implies that most of the migrants are from the poor or BPL category. It exemplifies the very nature of the problem of distress or forced migration.

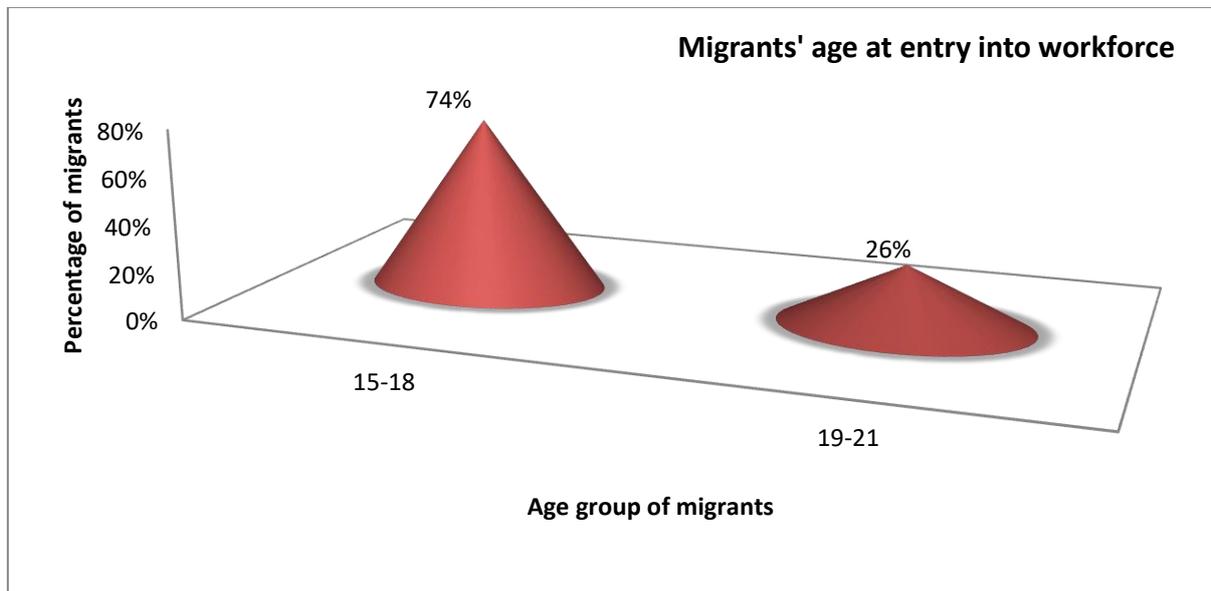
Chart no.7 –Educational Qualification of Migrants:



Source: Compiled from Primary Data

From the Chart no.7 the pattern that is emerging is, illiterates are the migrant lots but youths with secondary level education are also going out which is symptomatic of the withdrawal of youths from agriculture. Today's youths do not see their future in farming and low paid non-farm activities in the informal sector are attracting them to migrate out. The mushrooming growth of the urban informal sector at the cost of a dwindling agriculture has been creating conditions for a growth story which is lopsided and biased in favour of low-paid informal sector jobs. Distress migration is playing a major role in this story of an uneven socio-economic advancement.

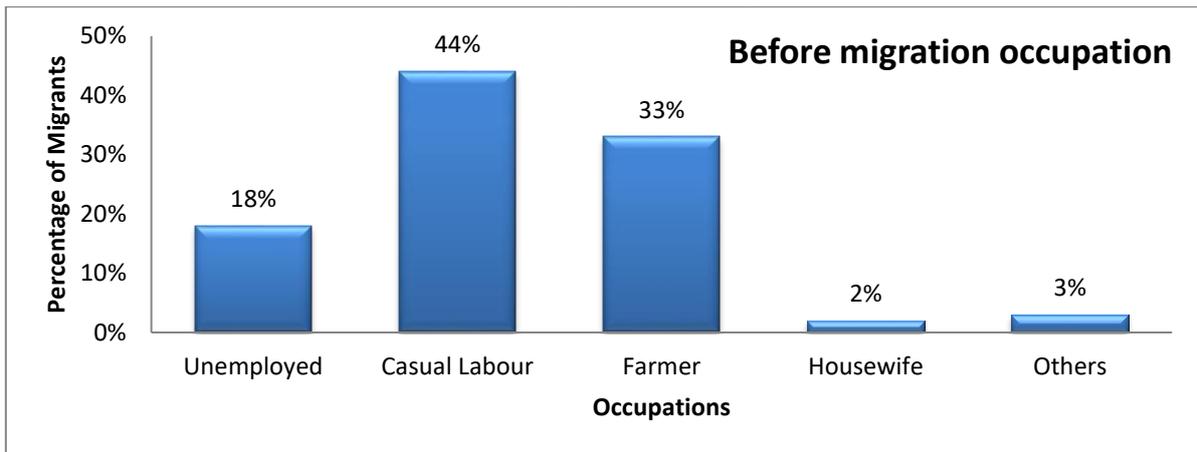
Chart no.8- Migrants' age at entry into the workforce:



Source: Compiled from primary data

Chart no.8 shows that, although majority of the migrants are from the age group of 20-30 years, nearly 74% migrants are joining the workforce between the age of 15 to 18 and 26% migrants are entering into the fray at the age between 19 to 21 years. It is not surprising because mostly youths are migrating out in search not only of non-farm jobs but also being driven by factors like social identity, emotional intelligence and behavioural familial considerations. The 21<sup>st</sup> century youths have their priorities tilted firmly towards the normative dimensions of life satisfaction rather than towards the traditional family-oriented earning avenues right at the doorstep.

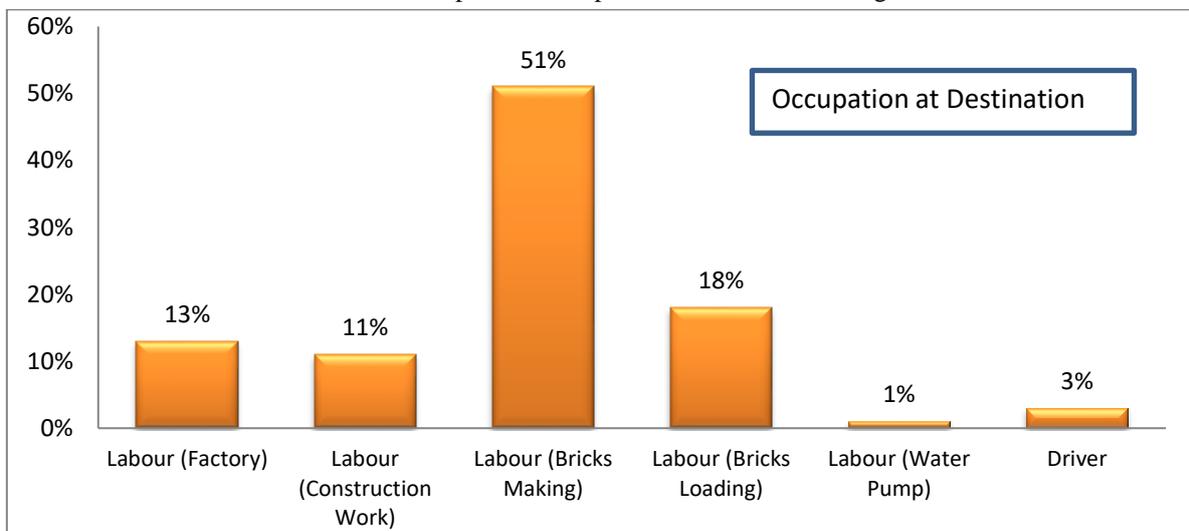
Chart no.9- Occupation before migration:



Source: Compiled from primary data

Chart no.9 shows that most of the migrant category workers are casual labour and small farmers without having a sound resource base in the village. People with low income capabilities and having no skills are the prime movers along with the youths of farmers' families.

Chart no.10- Occupation at the place of Destination of migrants:

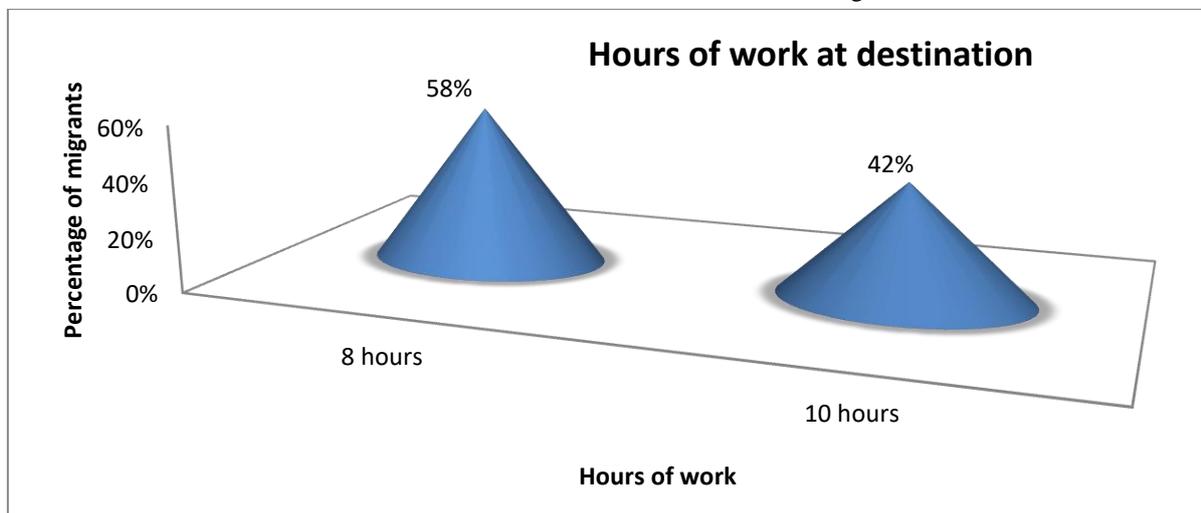


Source: Compiled from primary data

Chart no.10 shows migrants occupation at the place of destination where 51% of migrant's occupation is unskilled labour work (Bricks making) which is highest among all. 18% labourers are engaged in bricks loading meaning thereby almost 70% migrants are employed in bricks kilns. It implies that majority of the migrants of KBK region are working as labourers in Brick Kilns (Bricks Making) at the place of destination. Such work is not only unskilled but it allows the labourers to earn

very less and they are also subjected to various types of exploitations in the hands of the owners. Further research in this area will reveal the opportunity cost associated with such informal sector jobs as compared to the opportunity cost involved in the withdrawal of the same youths from agriculture.

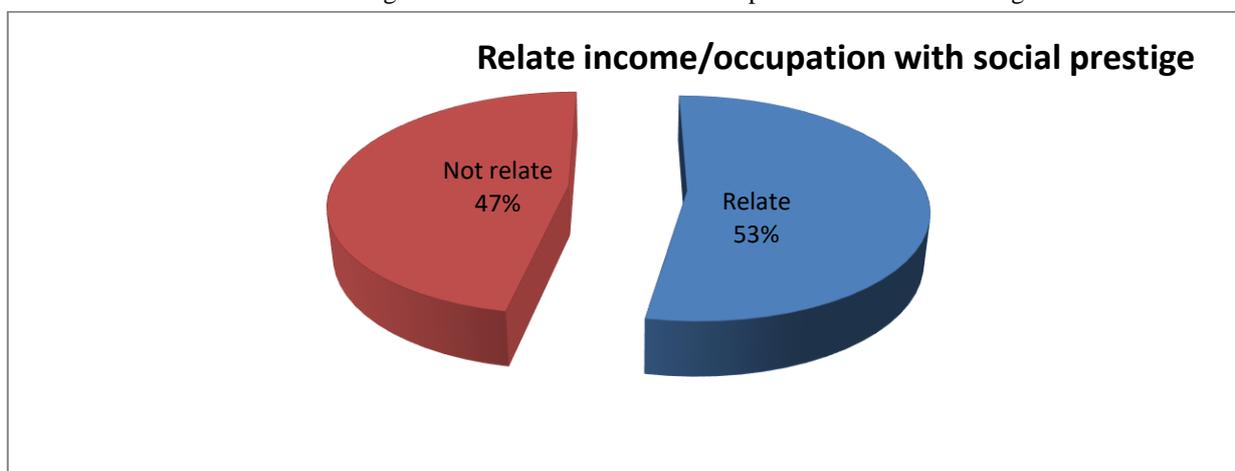
Chart no.11- Hours of work at the destination of migrants:



Source: Compiled from primary data

Chart no.11 shows the hours of work at destination of migrants where 58% migrants’ working hour is 8 hours and 42% migrants’ working hour is 10 hours. It implies that most of the migrants of KBK region of Odisha work more than 8 hours a day at work place. Long working hours with low wages at the destination speaks volumes about the kind of exploitative practices these migrants are subjected to. Hence, distress migration has to be seen from the normative perspective too.

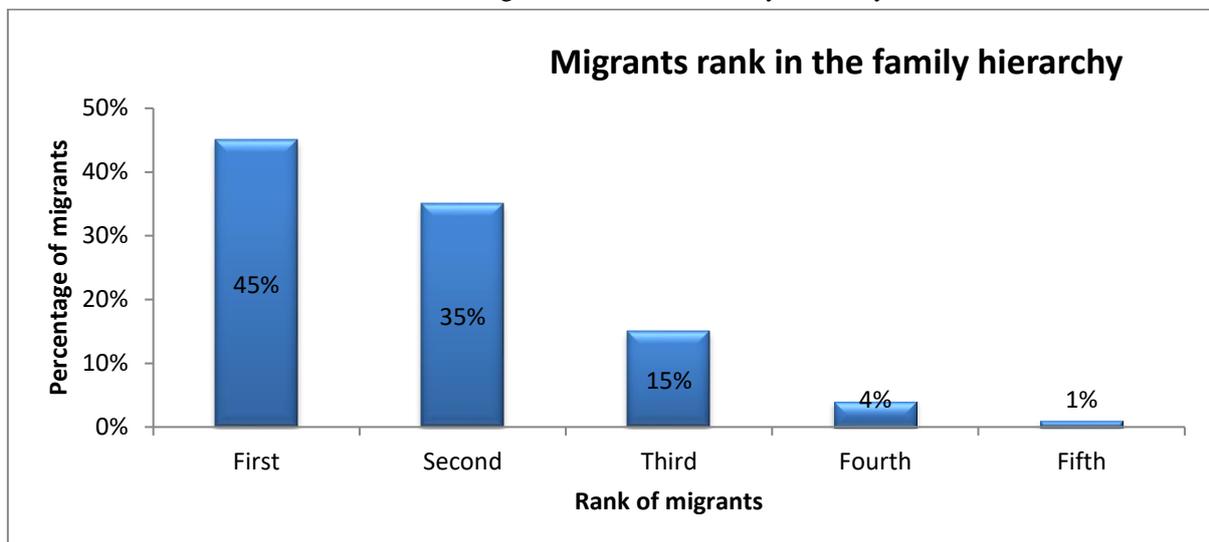
Chart no.12- Migrants relate their Income & Occupation with Social Prestige:



Source: Compiled from primary data

Chart no.12 shows the percentage of migrants relate their income & occupation with social prestige where 53% of migrants relate their occupation with social prestige. It is an indicator of identity aspect of a migrant. It implies that more than 50% migrants relate their income & occupation to their social prestige in the KBK region of Odisha. Identity does play a role although migrants are not aware of the same consciously. Mostly youths are leaving the villages in search of non-farm employment just as a matter of social prestige. Even if the wage rate is low, working condition is not favourable at the destination and most of the time they are subjected to various kinds of exploitations, today's youths withdraw themselves from agriculture and migrate out to show their worth to others. Working away from home has become a matter of prestige and recognition for such youths. This is indicative of the identity aspect of distress migration.

Chart no.13- Migrants' rank in the Family hierarchy:

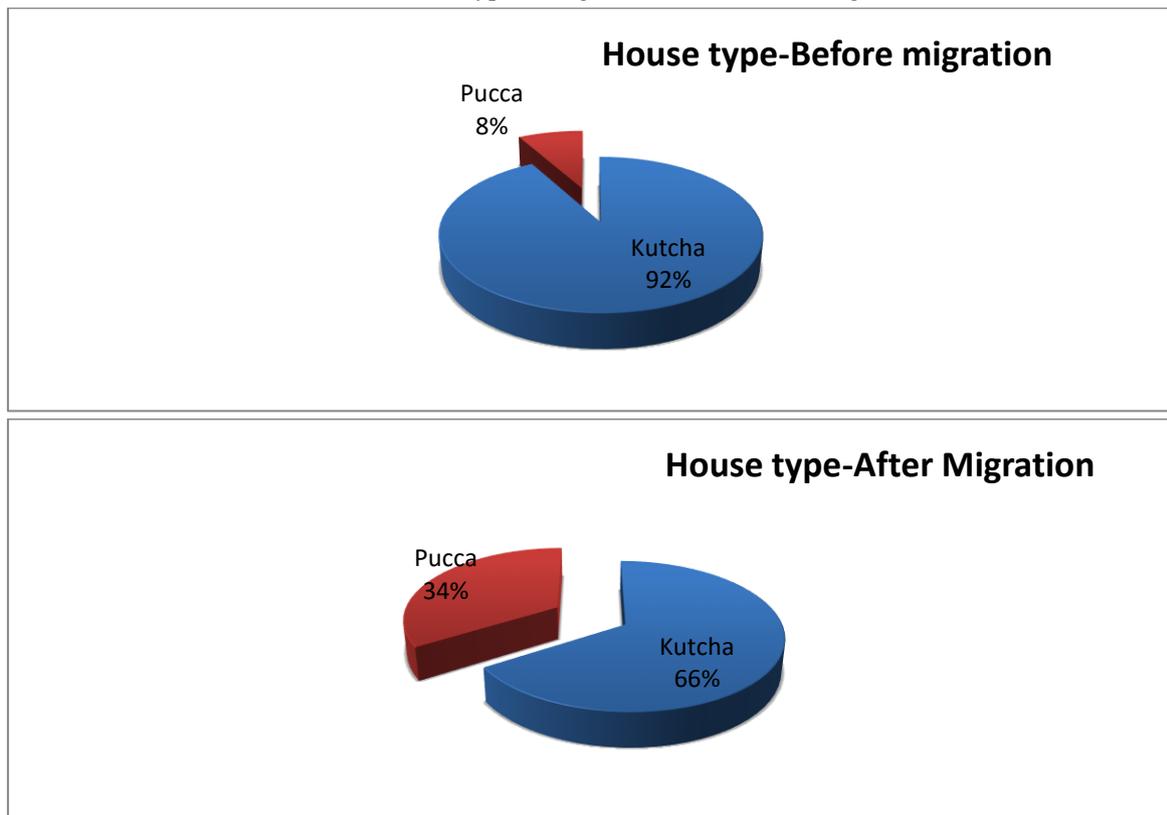


Source: Compiled from primary data

Chart no.14 shows the migrants' rank in the family according to their importance where 45% of migrants having rank first, 35% migrants having rank second, 15% of migrants having rank third, 4% of migrants having rank fourth and only 1% of migrants having rank fifth. It implies that in the family's hierarchy the decision making is in the hands of the head of the family in this part of Odisha. It is another aspect reflecting identity related behaviour while taking a decision to migrate. This is an indicator of decision making at the family level where nearly 50% migrants are the leader of their own families. Once the decision making is in a person's hands, he or she is free to take a decision in favour of migration. This is another aspect of identity related behaviour because the head of the family has to be respected at any cost.

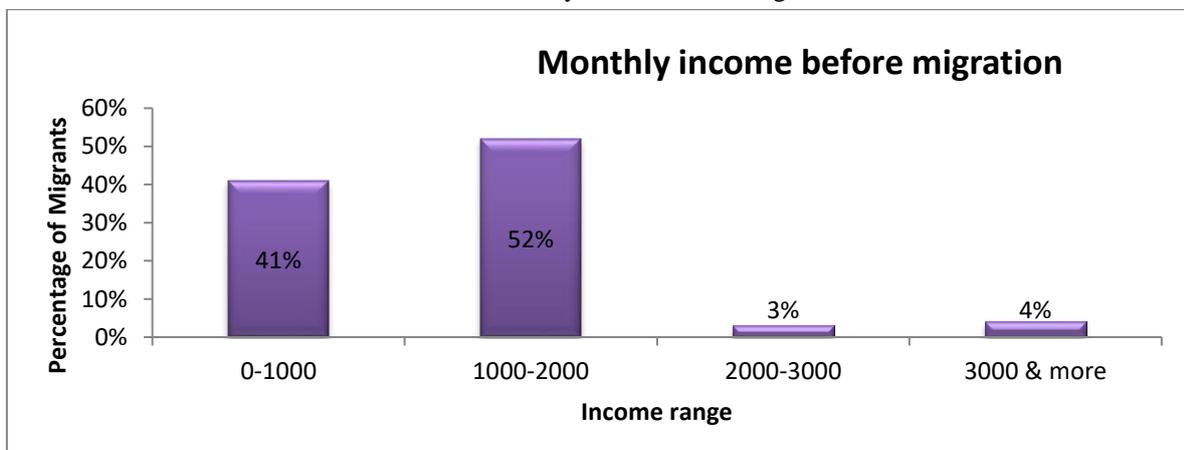
According to the Chart no.14 below, as far as improvement in the house type is concerned, migration and its related benefit has contributed to the slight improvement in the quality of housing. But the result is not that encouraging because of the government’s program on subsidised housing. This is a quantitative contributor of migration which is less promising as compared to other qualitative attributes.

Chart no.14-House type of migrants Before & After migration



Source: Compiled from primary data

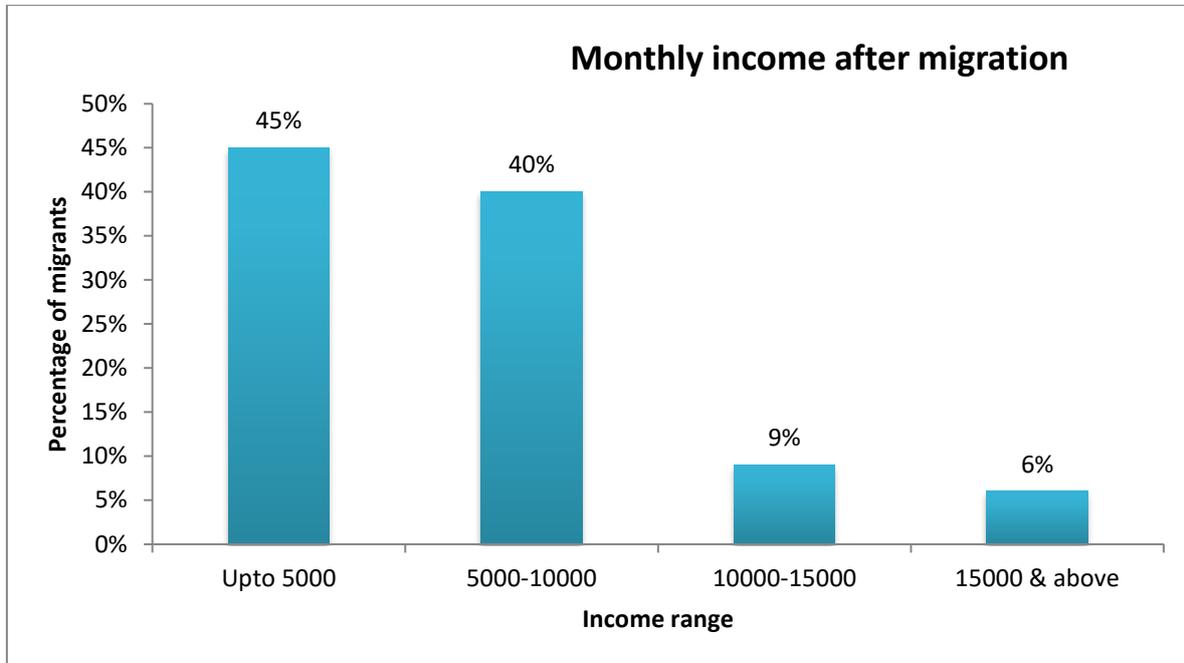
Chart no.15- Monthly income before migration:



Source: Compiled from primary data

Chart no.15 shows the monthly income before migration of migrants where 41% of migrant’s income range was 0-1000, 52% of migrants’ income range was 1000-2000, 3% of migrants’ income range was 2000-3000 and only 4% migrants’ income range was 3000 & more.

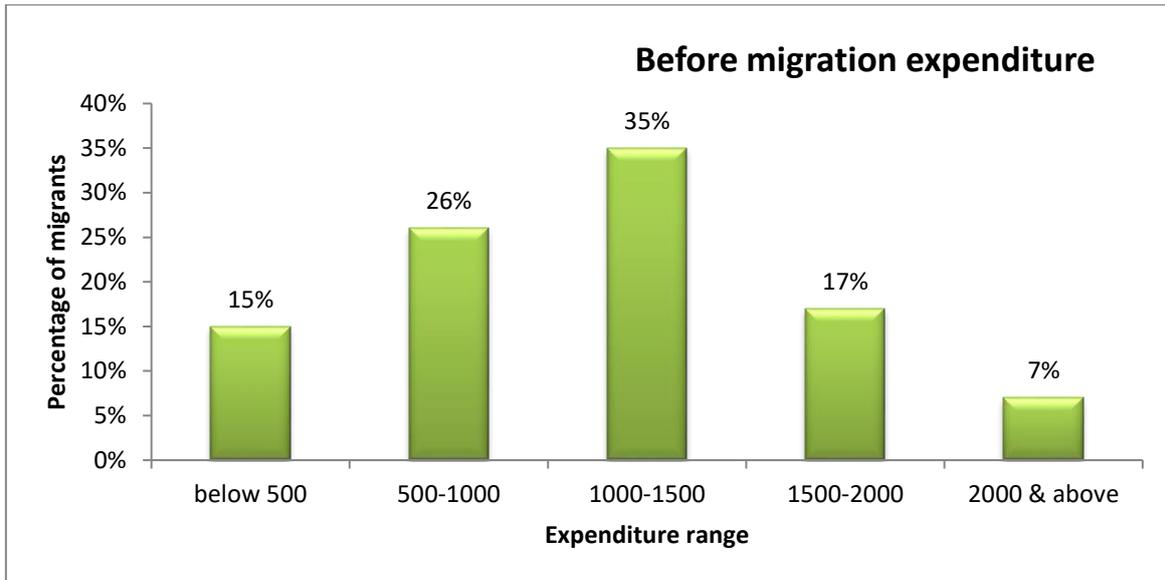
Chart no.16- Monthly income after migration:



Source: Compiled from primary data

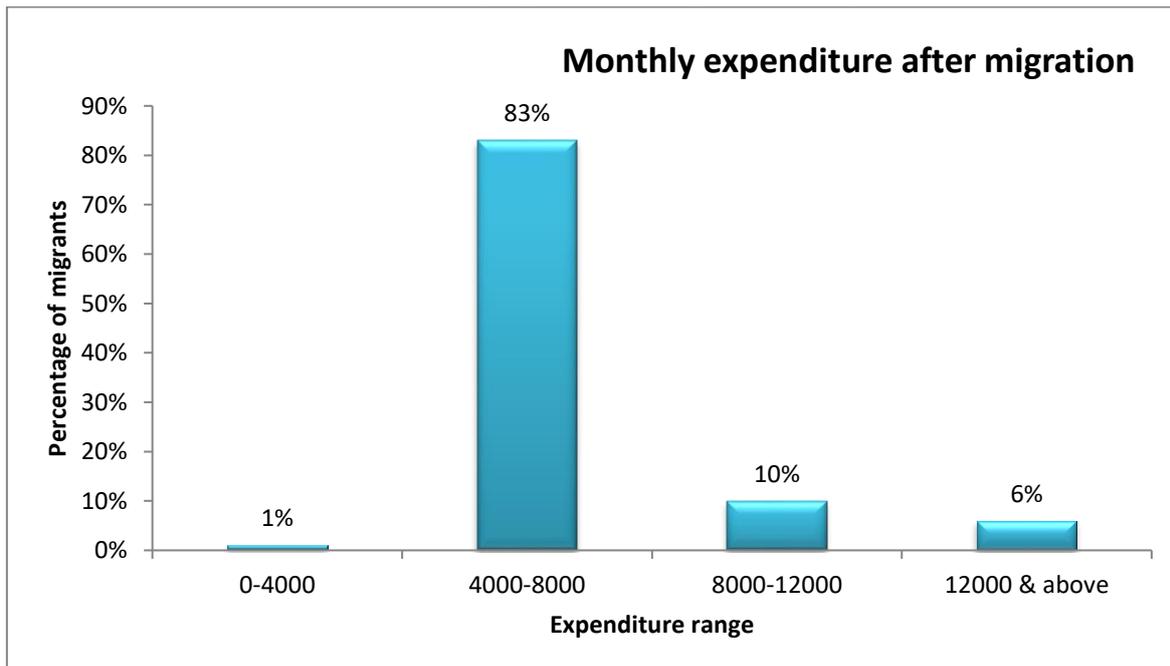
The other chart shows that the monthly income of migrants after migration has improved. Figures show that 45% migrants’ income range was up to 5000, 40% migrants’ income range was 5000-10000, 9% migrants’ income range was 10000-15000 and only 6% migrants’ income range was 15000 & above. It implies that after migration most of the migrants’ monthly income has increased in the KBK region of Odisha. It clearly shows the quantitative dimension of improvement caused by migration in this part of the state. Although the migration type is forced or distressed type, there is growth in income level post-migration due to the availability of work with consistent earning for a longer period at the place of destination. Thus, migration has a positive impact on the quantitative dimensions of economic progress achieved by the migrants.

Chart no.17- Monthly Expenditure before migration:



Source: Compiled from primary data

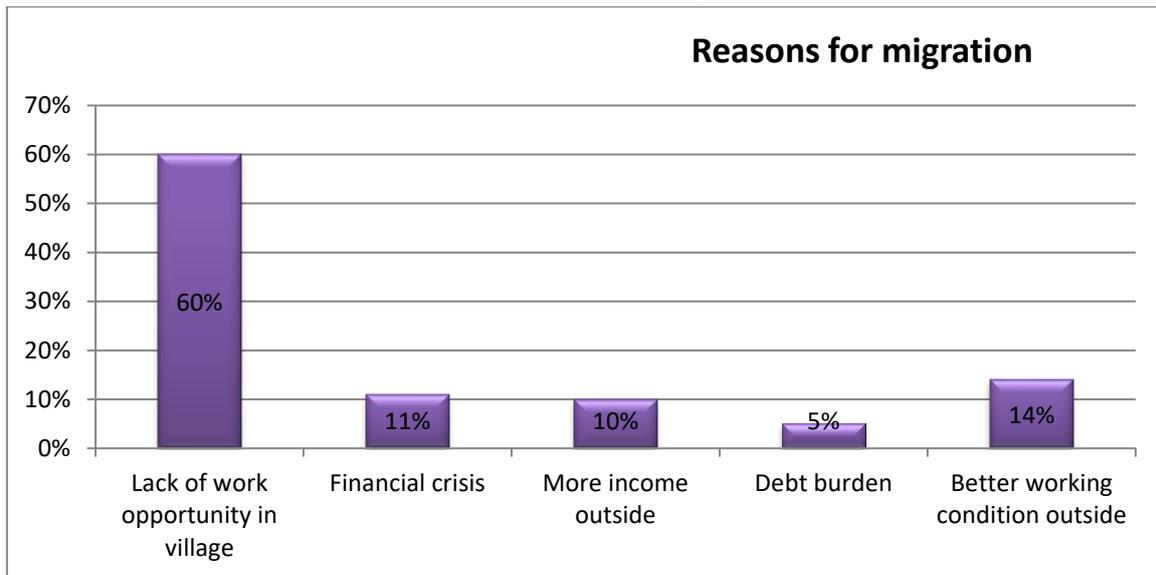
Chart no.18- Monthly expenditure of migrants after migration:



Source: Compiled from primary data

Study of the above two charts shows that migration, although distressed, has a positive quantitative impact on the spending capacity of the migrants in the post-migration phase. In other words, quantitative improvement in income and expenditure has been found to have happened as a result of migration.

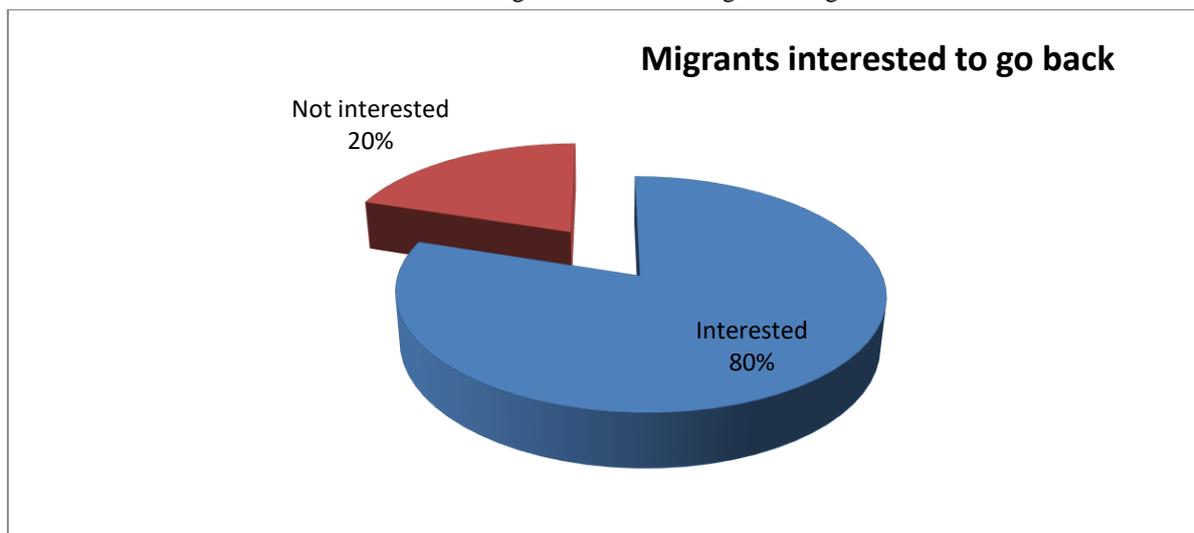
Chart no.19- Reasons for migration:



Source: Compiled from primary data

Chart no.19 shows that the most important reason for migration is the push factor like the lack of work opportunity in the villages. But there are some more factors associated with this decision. Behavioural factors do play a role in migration decision making besides the push factors like lack of employment opportunities in rural areas. But the fact of the matter is that normative behavioural factors are very difficult to be captured through the perception study of the migrants unlike the push-pull factors as mentioned above.

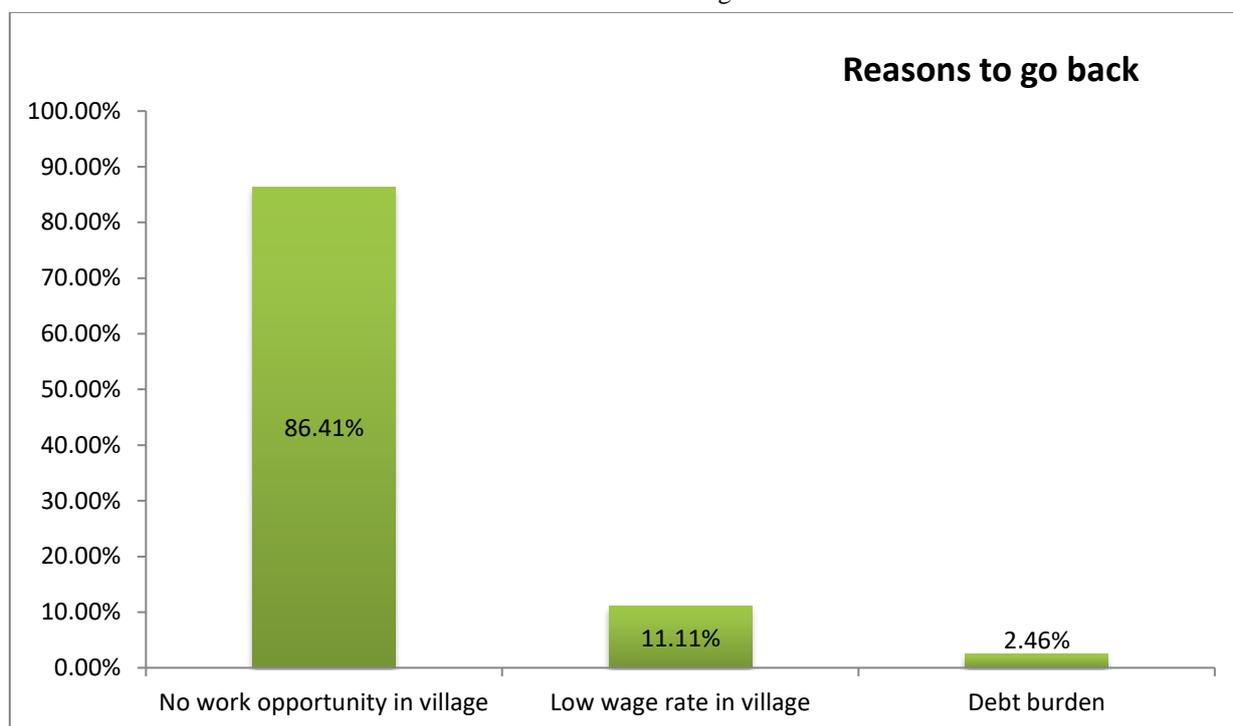
Chart no.20- Migrants interested to go back again



Source: Compiled from primary data

Chart no.23 shows that 80% migrants are interested to go back to their work place i.e the destination. It implies that most of the migrants want to go back to their work place despite the drudgery associated with it. The difficulties faced by the migrants during the covid-19 crisis and the life threatening experiences they had during the phase of reverse migration have not deterred them to return back. It is an indication of the perceived benefits more than the real costs associated with distress migration. The perception of the migrants seems to overestimate the short term quantitative benefits of migration as compared to the real costs associated with it. Hence, reverse migration has turned out to become situational and short term.

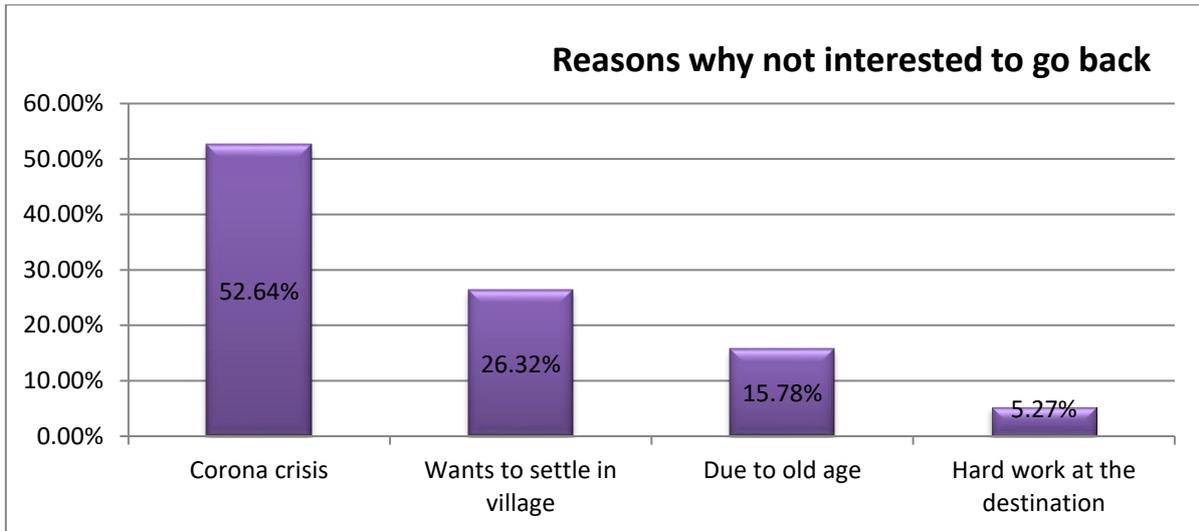
Chart no.21- Reasons to go back



Source: Compiled from primary data

Chart no.21 shows the reasons why people want to go back where 86.41% of migrants want to go back due to no work opportunity in villages which is highest and 2.46% of migrants want to go back due to high debt burden which is least. It implies that migrants want to go back because of not having work opportunity in villages of KBK region of Odisha. Hence, as per the perception of the migrants the push factors are the driving force but they are not aware of the behavioural dimensions of their decision to migrate out.

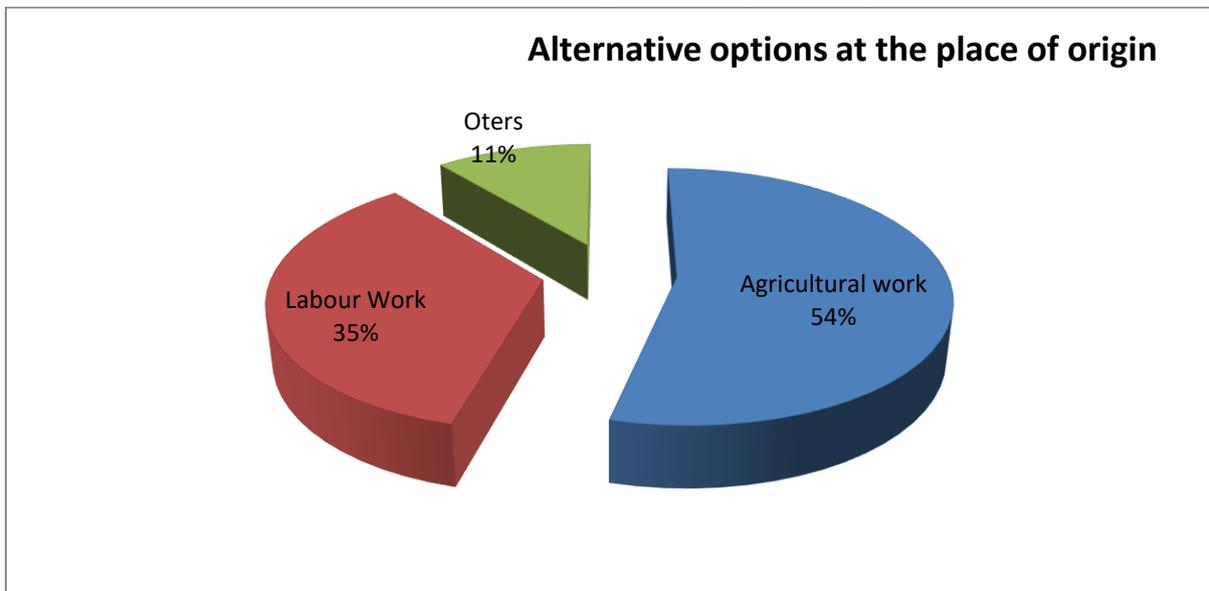
Chart no.22- Reasons why not interested to go back:



Source: Compiled from primary data

Chart no.22 is an indication of the fact that besides the corona crisis, nearly one-fourth people are not interested to leave their homeland again. That means, when the question is reversed it came out clearly that given a crisis, people are not interested to go back to their destination. Behavioural factors do play a role here.

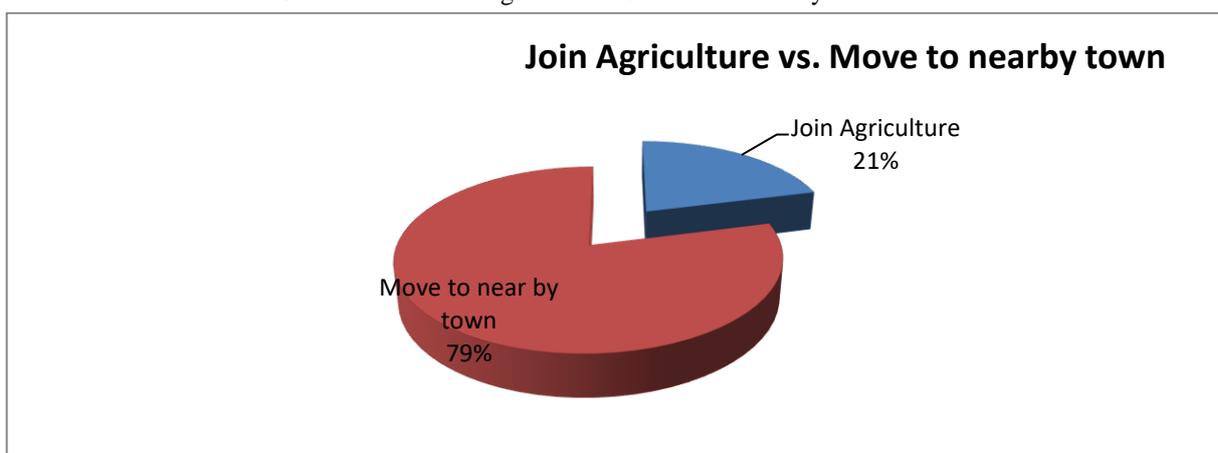
Chart no.23- Alternative options at the place of origin



Source: Compiled from primary data

Chart no. 23 shows agricultural labour and other casual labour work are the only options available for such people to fall back upon in the rural areas. Such issues are leading to casualization of labour and non-development of the non-farm sector in rural areas. Being driven by identity related behaviour and normative aspects like social prestige with socio-economic acceptability, youths are leaving the rural economy in search of informal sector jobs outside. The result is continuation of the issue of migration year after year.

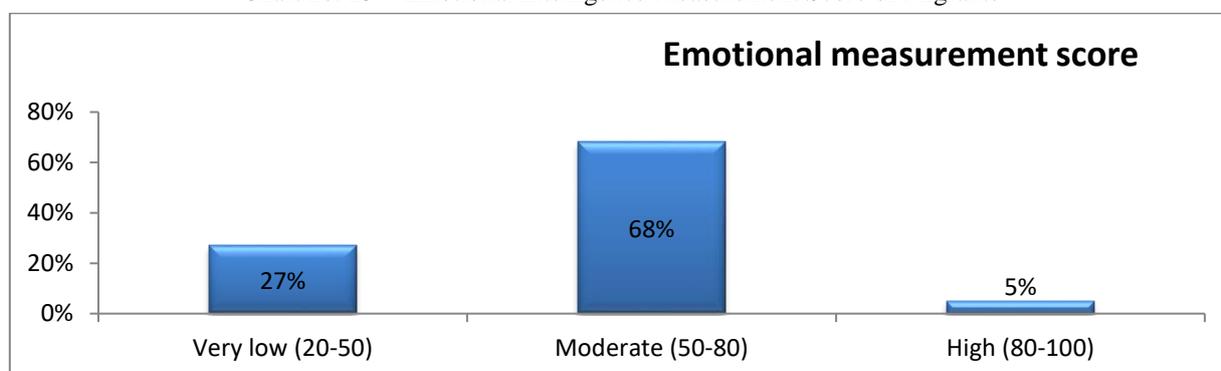
Chart no.24 – Join Agriculture vs. Move to Nearby Town:



Source: Compiled from primary data

Chart no.24 shows an interesting result wherein we can see that those who are not interested to migrate out, they want to move out within the state to the nearby urban centre. Thus, migration is a must and it is beneficial in this sense. Agriculture is not an option for the youth of today’s world and that is the reason why there is withdrawal of youths from agriculture in this part of the country. Even if there is no inter-state migration, we find intra-state migration anyway.

Chart no. 25 – Emotional Intelligence Measurement Score of Migrants



Source: Compiled from primary data

Chart no.25 shows that the emotional measurement score of migrants is on the higher side. As per the figures obtained from the standardised scale of measurement of emotional intelligence, 73% migrants are more emotional. It implies that behavioural factors do play a role in the decision to migrate. The push and pull factors are not the only dominant factors causing migration. The Emotional Intelligence scale of Likert Type has been used to find out the level of emotional intelligence in the migrants and it has been found that a high majority of migrants are emotional and they take migration decisions being driven by behavioural factors.

## 7. Paired Z- Test for Hypothesis Testing

When the paired Z-test was run, it came to the fore that migration, whether distress or forced type has resulted in the growth of income, expenditure and savings of the migrants' families. All the results shown in the following table are significant at 5% level of significance.

The table clearly shows the paired z-test analysis of data to find out impact analysis of pre and post migration. From the table it is clear that the mean value of monthly income during pre-migration is 920.20 and post migration is 6825.83, level of significance is 0.05, z-stat is 19.71631, z-critical value is 1.959964 and p value is 0.00 which shows significance of the test.

The mean value of monthly expenditure during pre-migration is 920.20 and post migration is 6043.03, level of significance is 0.05, z-stat is 23.45835, z-critical value is 1.959964 and p value is 0.00 which shows that the z-test is significant at the 5% level.

The mean value of monthly saving during pre-migration is 3.23 and post migration is 772.70, level of significance is 0.05, z-stat is 7.010951, z-critical value is 1.959964 and p value is <0.00001 which shows significance of the z-test at the 5% level.

The mean value of monthly expenditure on children education during pre-migration is 30.30 and post migration is 268.68, level of significance is 0.05, z-stat is 5.342375, z-critical value is 1.959964 and p value is <0.00001 which shows that the z-statistics is significant at the 5% level.

Thus, above results proves the hypothesis that due to migration there is increase in monthly income, monthly expenditure, monthly saving and monthly expenditure on children education of migrants. Meaning thereby, even distress migration from the backward region like the KBK is quantitatively favourable and beneficial to the migrants and their families. This kind of results have also been established by a number of studies done earlier in the KBK region of Odisha and even in some other areas where forced migration has been a perennial issue of concern. The computation of the paired Z-test has been done with the help of the advanced excel program.

## Hypothesis Testing

Table no.1 - Paired Z- TEST FOR HYPOTHESIS TESTING:

INDICATORS	PRE MIGRATION MEAN	POST MIGRATION MEAN	z-STAT	z CRITICAL VALUE TWO TAILED (±)	P (z<=Z) TWO TAIL	LEVEL OF SIGNIFICANCE	RESULT
MONTHLY INCOME	920.202	6825.838	19.71631	1.959964	0.00	0.05	SIGNIFICANT
MONTHLY EXPENDITURE	920.202	6043.03	23.45835	1.959964	0.00	0.05	SIGNIFICANT
MONTHLY SAVING	3.232323	772.7071	7.010951	1.959964	<0.00001	0.05	SIGNIFICANT
MONTHLY EXPENDITURE ON CHILDREN EDUCATION	30.30303	268.6869	5.342375	1.959964	<0.00001	0.05	SIGNIFICANT

Source: Compiled from primary data

## 8. The Logistic Regression Model

The Logistic Regression Model has been used to find out the impact of a few important quantitative and behavioural factors on the qualitative decision variable or dummy variable i.e. migrants' interest to go back. In other words, the effort here is to find out what important factors mostly behavioural factors are responsible for the migrants' decision to go back to the place of destination once the covid-19 pandemic comes back to normalcy. It is expected to throw lights or indicate the importance of behavioural economic variables impacting distress migration besides the quantitative factors like income, expenditure or job opportunities at the place of destination.

Dependent variable- Interested to go back to the destination

Independent variables- Per capita Income, Emotional measurement score, Just world hypothesis bias, / no work opportunity

Model:

$I=f(\text{Per capita income/EI Score/ Just world hypothesis bias / no work opportunity})$

### Variables not in the equation

Independent Variables	Score	df	Sig.
Per capita Income	1.186	1	.276
Emotional measurement score	0.546	1	.460
Just world hypothesis bias	0.92	1	.761
No work opportunity	61.207	1	.000
<b>Overall Statistics</b>	<b>63.619</b>	<b>4</b>	<b>.000</b>

### Variables in the Equation

	B	S.E.	Wald	Df	Sig.	Exp(B)
constant	1.386	250	30.749	1	.000	4.000

The logistic regression model shows that migrants are interested to go back again have significant causal relationship with behavioural factors like emotional intelligence and presence of cognitive bias. The Just World Hypothesis bias is a cognitive bias or a fallacy which states that a person's good actions are eventually rewarded and evil actions get punished. It is the tendency to believe that the world is just/fair and that people get what actually they deserve in life. People believing in the just world hypothesis look for ways to rationalise injustice or bad socio-economic condition/situation they are in. Thus, the conclusion that can be drawn is, besides the push factors; there are behavioural factors on the demand side which influence the decision of a migrant to move out. Behavioural factors like emotional intelligence, cognitive biases and social prestige/identity influence the decision of the people to migrate out. The second hypothesis is proved that there is the importance of normative or psycho-economic dimensions in migration decision making which cannot be neglected in the development economics research and literature. Hence, the push pull hypothesis needs to be supplemented by the presence of such subjective factors which influence the behaviour of the migrants.

## 9. Conclusions

Form this study the conclusions that we can draw are that the push and pull factors are not the only determining factors in forcing people to migrate out from the backward KBK region of Odisha. There are a number of behavioural or psycho-economic factors like emotional intelligence, cognitive biases, identity of an individual in his family/village/society and his perception of exclusions which influence the decision to migrate. The *info-graphic method* adopted in this study revealed that the decision to migrate on the part of the people in distress has something to do with their state of mind, emotional assessment of their well-being & ill-being and their perception of who they are in the society

they are living in. Therefore, any program to control or stop seasonal distress migration in the backward regions like the KBK region of Odisha has to be seen from a micro-theoretic demand side perspective of behavioural economics.

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