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Editorial Preface

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process. ISIJ provides authors with high quality, helpful reviews that are shaped to assist authors in improving their manuscripts.

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A CONCEPTUAL FRAMEWORK FOR RURAL EMPLOYMENT GENERATION IN INDIA

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Abstract

The economic divide between urban and rural sectors coupled with the unbalanced growth within the rural economy, is a major hurdle in the growth of Indian Economy. The existing government-run employment schemes are subsidized credit based schemes, which are good for any feasible project. However, with the kind of educational and economical background of rural population, there is a need to go a step backward and show them a way to mobilize what they have in terms of possible resources. This paper takes an inductive approach to explore and arrive at a conceptual framework for generating income in the rural economy. The framework is based on the analysis of primary data collected through focused group discussions. Unlike government run employment schemes, the proposed framework incorporates the efforts and social intentions of different segments of society and integrates social intent with profitability thereby, ensuring better sustainability and commitment to the cause.

Key words: Rural Employment, Social Intent, Skewed Economic Growth, Voluntarism, Unemployment, Income Generation

1. INTRODUCTION

Since 1991 when economy was in crisis, India has come a long way by means of liberalization and policy reforms in various sectors. The consequent rise in GDP over the years has turned India into one of the fastest growing economies of the world. This is very much evident from the GDP figures for the country which has grown by an average of 8.62% during 2004-05 to 2010-11 (The economic Survey, 2010-11)[1]. The growth estimate for the fiscal 2011-12 as per finance minister in his union budget presentation is 9%. However, it is felt by many experts that to be in the big league, Indian economy needs to accelerate its growth rate to 10%. The question to be answered is: is this growth possible and if yes how?

India has shown an impressive growth rate in the last decade benefitting a large majority of Indians, still 25% of its population are below the poverty line(CIA World Factbook, 2010)[2]. In fact one in every five poor people is from India. India currently ranks at 117th position in terms of highest unemployment rate in the world (Index Mundi: India unemployment Rate, 2010)[3]. According to Labor Bureau of the Government of India[4] the overall unemployment rate in India in the year 2010 was 9.4%. If the split is considered, the rural areas accounted for an unemployment rate of 10.1% as compared to its urban counterpart with a 7.3%[4]. With more than 70% of the Indian population residing in rural areas unemployment is acute and is a major hindrance to the country's growth possibilities. This Skewness in economic activities and employment pattern must be addressed if India is looking for acceleration in its economic growth.

In this context, focus on rural economic growth becomes utmost important. The developments are positive as for instance, in 2008 a robust growth rate of 25% in retail markets were seen in rural areas as against 10% growth in urban retail markets. As per Mackinsey, in another twenty years rural India would grow almost four times from the estimated size of US$577 bn in 2007[5]. However, since the per capita income in these areas is appreciably lower than that in urban areas, this estimate seems to be largely based on the larger customer base in these areas (thrice to that of urban areas).

Some other studies conducted on rural markets like, those by National Council for Applied Economic Research (NCAER) and the Associated Chambers of Commerce and Industry of India (ASSOCHAM), establish that rural markets are becoming increasingly attractive to FMCG, automobile, and retail business[6&7]. However, all of this growth is derived from the increased consumption. This increase in per capita consumption is not accompanied by similar increase in per capita income in these areas. The rural population in India was known for being conservative towards investments and consumption and for believing more in savings. This consumption growth has stemmed from the increased awareness for consumer goods courtesy the advertising and customized sales efforts made by various consumer good companies. However, induced spending on consumption can though add to the market growth and did recently save India to some extent from the gravity of financial crises but, how long? Without a simultaneous and similar increase in the purchasing power of the rural households, this growth cannot sustain for long. With the present state of employment in rural areas, it would be difficult to foresee the rise in purchasing potential of its households. If we look at the few past years, there has been so much uncertainty around monsoon that agriculture which is a major form of employment in these areas, has off late even failed to serve them for their subsistence needs. This has coaxed many farmers to fall into the traps of money lenders and seek high cost borrowings. Due to lack of any stable source of income, farmers find hard to pay back these loans and hence, many of them even take extreme steps such as suicides, as witnessed in the past few years.

There has been evidence since the past that for tackling poverty and vulnerability, many governments and donors frequently adopt public works as their flagship programme. During 1985-86 in Botswana, 21% of its labor force was employed by such programmes. Similar programmes in Chile provided employment to 13% if its labor force. Jawahar Rojgar Yojuna programme in 1995 provided days of work to a billion of unemployed in India. Such public schemes/programmes constitute a social transfer, which is in the form of a wage, to poor and vulnerable households. These household are in turn dependent on these able-bodied members providing labor. The high cost of such social transfers, which are seen more as a tool for providing social protection in developing countries, cannot be realized unless it creates valuable assets. The present work offers a framework to integrate the resources of various stakeholders so as to reduce dependencies on any one of the stakeholder. By creating interdependencies between various stakeholders, it proposes to create a system which in the long run is viable, competitive and profitable in markets.

The approach was inductive intending to explore and arrive at a conceptual framework for creating employment and income in the rural parts of the country. Formulation of an employment generation scheme would require identifying the elements that offers the best prospects for sustenance and future expansion. Pursuing this view, there have been a few models proposed on the theme of rural employment generation. The first is neoclassical model of rural employment generation which provides no justification for a special treatment of rural areas. It perceives labor allocation in the rural markets to be efficient with least employment expansion possibilities and skill formation as the only way

of increasing returns from employment. Therefore, the suggestion it makes to the policy makers is to develop human capital and focus on bringing technical change to raise productivity in rural areas. The second is the dual economy model which widely recognizes market failure in rural economy and considers underemployment as a serious problem. However, it considers urban economy as the center for employment generation and not the rural economy. This paper draws its motivation from the third model, the dynamic linkages model which not only recognizes a strong need and scope for employment expansion but also advocates that such needs can be accomplished by the rural economy itself. It considers that the key to employment generation is the sustained expansion of non-agricultural activities in rural areas.

The present work concludes that not only expansion of the existing non-agricultural employment forms but also, creation of newer alternative forms of employment and supporting for its further growth and expansion, would create the required momentum which rural economy needs and which urban community along with the state support can provide. The work is an exploratory framework on the broad theme of rural employment generation. The framework is organized around three different perspectives that emerged out of the focused group discussions.

The rest of the paper is organized as follows: Section II reviews the literature available on rural employment, particularly in the context of developing economies, in greater detail. Section III discusses the methodology adopted to develop insights into building the framework for rural employment generation. Section IV outlines the findings of the focused group discussions highlighting factors that determine patterns of rural employment. Section V presents the proposed framework. Section VI concludes by making certain suggestions & recommendations.

2. REVIEW OF LITERATURE

In order to develop a framework for rural employment generation that addresses the elements offering the best prospects for sustenance and future expansion, there was a need to review the literature offering various insights to the formulation of a scheme for the same. Most of such studies are based on developing economies, high in need for social protection like, India, Pakistan, Bangladesh, Philippines, Nepal, Uganda, and Indonesia etc. A culmination of the available literature which has helped the author present the work in its present form is, presented in an apt detail in this section.

The term alternative forms of employment is used to refer to non-farm employment or non-agricultural employment since they offer alternative to the most dominant form of employment in rural areas-the agriculture. Concerning the nature of these alternative forms of employment and in sync with the monsoon economy hypothesis, Fabella (1986)[8] found countercyclical behavior of some of these employments where it substituted for agriculture during off-seasons. Contrary to this finding, the paper views that alternative forms of employment should be promoted as meaningful employment in its own right and a strive similar to green revolution in Asia, which resulted in a manufacturing boom in rural areas, is needed.

Efforts to create employment in rural areas must consider that there could be several barriers in the road to success. Rural sector in India is still underdeveloped and lacks the basic infrastructure, one of the necessary ingredients for any business model. Coppard (2001)[9] while working on non-farm sector of India finds direct link between alternative employment and infrastructure like transport and electricity. Also, remote location could always pose serious operational issues for any such initiatives. Van de Walle (2004)[10] and Rosegrant and Hazell (2000)[11] depict strong and positive correlation between the

location of the rural community and alternative forms of employment. The importance of location in employment diversification is from the fact that it encaptures many aspects like climate, available resources, proximity to urban cities, literacy level etc. Alternative forms of employment were found to be concentrated in villages located in proximity with urban cities than those in distant areas, as found by different studies done by Hazell and Haggblade (1993)[12] Manning, (1988)[13] and Khmana (1992)[14]. The explanation for such findings is forwarded by Rosegrant and Hazell (2000)[11]. According to them, the dispersed economic activity of towns generate demand for non-agricultural produce, and provide crucial markets and financial services to support economic activity in the nearby areas, thus functioning as an originator of employment activities. The finding is more close to the dual economy model. Drawing upon from this finding, employment generation models are more likely to be successful in villages nearby to cities therefore; these locations could be the starting points for initiating or establishing employment generating units.

Another factor in selecting a rural location for an employment generating unit could be climate in context of agriculture. However, the linkage of favourable or unfavourable climate with diversification of employment is not very conclusive. David and Otsuka (1994)[15] studied seven Asian countries and concluded that income diversification is higher in rural areas where climate for agriculture is unfavourable. Lack of adequate agricultural employment serves as a drive to explore other forms of employment including temporary migration. Reardon et al. (1999)[16] find that where climate is unfavourable to agriculture, other forms of employment which are linked to agricutture are not available and hence, due to lack of alternative forms of employment locally, rural households tend to earn most of their non-farm income through temporary migration.

Studies (Saith, 1991[17]; Estudillo and Otsuka, 1999[18]) have found that wage employment including migrant remittances is the more dominant form of non-agricultural employment measured at the household level and it has been rising over the decades. As compared to the year 2000, off-farm workers in 1981 were three times more likely to reside in their homes (Zhang et al., 2003[19]). Such increased migration of rural individuals to urban areas would only add to the growth imbalance and the implications attached with it. These studies indicate that the employment diversification is poor in villages with unfavourable climate and the source of high income diversification in these areas is majority migrant remittances. It also points out to a scope to create local employment opportunities which are not agriculture based.

Concerning the form of such employment opportunities, agriculture is dominated by self employment form; the same can be promoted for non-agricultural employments. In this form they can absorb the surplus workforce locally and inhibit them from migrating away from their homes in search of employment. Some evidence in this regard was found in Bangladesh rural households by Hossain et al. (2003)[20], where only one third of non-farm employment reported wage labor as the main form of employment.

In the pursuit of alternative forms of employment, access to formal credit is often the main constraint to investment and entrepreneurship. This was concluded by Wandschneider (2003)[21] while studying developing economies like India and Uganda. Lack of finance as a major constraint was also cited by Reardon et al. (1999)[16] who found that most of the enterprises in rural areas were undertaken by richest households. Som et al. (2002)[22] in their survey of non-agricultural employment also found access to credit as the most important business need. The other needs identified by them were: market access, skills, raw materials supply, infrastructure and social stratification.

The role of education in the creation of economic benefit for rural residents was established by Yang (1997)[23] who found that education can raise their wage earning potential. Several studies found that with increased education levels and experience

individuals chances as well as decisions of non-agricultural employment increases (Coppard, 2001[9]; Zhang et al., 2001[24]). Reardon et al., (1999)[16] also linked education to securing profitable business and diversification in employment. In Indian context the strong evidence of education impacting non agricultural earnings was found by Reardon et al. (1999)[16] and Coppard (2001)[9].

These findings would mean that formal schooling will result in better employment opportunities. This paper however, goes on to suggest that apart from basic education, like secondary education, formal and hands-on training on some of the alternative forms of employment would not only increase the wage earning potential but would enable these households to initiate, expand and further create employment opportunities in their localities.

3. METHODOLOGY

In an attempt to find a way to promote the rural economy, initially a series of semi-structured and open interviews with each of the following people were conducted:

- 30 people from 10 villages (3 from each village) who were also the members of Gram Panchayat.
- 5 NGO's working closely with gram Panchyats to create local employment opportunities.
- 12 Grameen Bank officials
- 10 High Net Worth Individuals and 20 corporate managers in Delhi and NCR region.
- 7 officials from Regional Khadi and Village Industries Commission (KVIC) office and from State District Industries (DIC's).

Based on the analysis of the inputs received in this preliminary investigation, a tentative framework for rural employment generation was proposed. It was further decided to hold focus groups discussions involving members from various components of the framework. Focused groups were used because the researcher desired for a scientific explanation for the tentative framework but was uncertain about the constructs. It was also to investigate whether participants shared similar opinion on the feasibility of the framework. Findings after the analysis of the focused groups were duly incorporated into the final version of the framework.

The assumptions about focus Group method as given by Fern (1982)[25] were held while constituting the groups. These were: 1. group interviews produce more useful results than individual interviews, 2. the most significant size of a group is eight, 3. the moderator significantly improves group discussions, and 4. Group participants should not be acquaintances. Five separate groups, each comprising of members relating to different components of the framework were formed. The Focused Group had representatives from CSR cell of various corporates, government officials from different national and state establishments to promote rural economic welfare, training institutes engaged in vocational education and training, retailers who deal with some of the commodities produced by rural people, management professionals, media, local entrepreneurs and rural representatives from the identified villages. Each group had between 8 and 10 participants. A facilitator/moderator and an assistant were assigned to each group. The purpose of the facilitator was to guide the discussion from topic to topic, probe and encourage discussion, and ensure that all participants contributed their views. The assistant mostly helped administratively.

The discussion sessions were informal with refreshments and regular session breaks. They were held in a conference room setting. All conversation was tape recorded. Each

session followed the same structure with fourteen identical questions being put to the group. At the beginning of each Focused Group discussion all participants were encouraged to introduce themselves to the group and express their views on economic disparity in India. The questions asked at the focus groups were compiled from the feedback received through preliminary investigations.

Since the nature of data collected was narrative, content analysis was conducted for analyzing and interpreting the data using the framework proposed by Kruegar & Casey (2000)[26].

The data was carefully studied and the information was categorized to identify themes or patterns. Some of the categories were predefined (preset categories) as revealed in preliminary investigation; however, a careful evaluation was done to identify any emergent categories during the analysis. Analysis was done to identify patterns and connections within and between categories. To create mutually exclusive and exhaustive categories, explaining the framework for rural employment generation, information pertaining to one theme was summarized into few larger categories. The study of connections between such super categories as well as connections within these categories was used to build the proposed framework.

The section discussing the findings of the study explains three such main categories obtained from the focused group discussions. It also discusses the inter-relationships observed between them and presented in the form of a framework. The proposed framework is a diagram with boxes and arrows that puts the findings of the focused group discussions together on the issue of rural employment generation.

4. FINDINGS

Discussions by nature tend to: deviate often from the one–point issue to a chain of related and some times absolutely unrelated issues; spread out without being conclusive; and gets dominated by few of the participants. In light of these limitations, the role of moderator was to ensure that different members contribute to the discussions which happen around only the related issues. The role was also to synthesize the discussions into broader agreements in front of the group. In order to consolidate the findings, the responses were aggregated at two levels, one within the group and the other between the groups. Following were the common themes expressed by the focused groups in the context of rural employment generation:

1. The implications of poor economic growth in rural India are: increasing immigration/greater dependency on urban economy; over-crowding of urban cities; social unrest/increasing crime rate; increasing pollution in urban cities; increasing traffic; rural isolation/non-inclusion, and breaking up of social units/families in rural areas
2. The important reasons for poor state of rural sectors are: biased economic policy; unfavorable agricultural climate; poor infrastructure; inconsiderate urban society; lack of finance, material resources, professional training, employment skills, ideas, and awareness about existing facilities and schemes; remote location; urban pull, and cultural conditioning.
3. Public finance has been inadequate, awareness of different public programmes for rural employment generation has been poor and there has been observed failure of government in enabling rural population to earn their livelihood.
4. Standalone initiatives and actions of the government are not enough to generate sustainable employment and income in rural areas. Government should partner

with private sectors firms as well as other socially motivated members of the society for this purpose.

5. Any such program/employment unit must actually give the local manpower an opportunity to develop fully by incorporating them into the value chain. This would require investments in education and training of the willing individuals. Work specific, hands-on, experiential, and time bound but adequate training would be required for imparting employment skills to rural citizens.
6. Agencies like corporate, training firms, retailers, media, and management institutes should come forward in unison and share the social responsibility of creating growth in rural economy with the government.
7. A more effective strategy would be to set up alliances between various agencies which can establish and run an employment unit in rural areas. Such alliances should enable them to share their resources and skills for mutual gain as well as for the gain of rural population at large.
8. Rural employment units should not only have social value but should also create economic profits for its different stakeholders. Inbuilt profits in the system will induce active participation from various stakeholders making contributions to the cause. Contributions should be welcomed in all forms and can be measured as the monetary value of the service offered whether tangible or intangible.
9. A system for profit along with social service will raise concerns about the structural design of such units within the existing legal and policy framework. A form of institutional framework which integrates social as well as profit objective should be explored. Government will have to provide policy support to such units on a contingent basis making flexibility a key feature of such policies.
10. Governments should equip communities with social services that can assist in generating income given the unique characteristics of a rural location.
11. Policies should seek to strengthen the competitiveness of any unit that is laid with an objective of creating employment and income for the rural citizens. They need to be redesigned to accommodate to the complex dynamics and challenges unique to each rural location. Policies should respect the local capacities and differences and facilitate internal economies to become more dynamic. They would be required to support an institutional framework if designed with the support of various sections of the society.
12. Though inbuilt profits in the system for creating employment in remote areas will help for its sustenance in the long run, participation into it has to be truly voluntary with social intentions. Economic profits can only be a reward for reinforcing these social intentions.
13. Donation is relatively easy to seek for proposal which is for social benefit, is feasible, has potential to deliver tangible and measurable results, and is visibly free of corruption and delays. The frequency and magnitude of such donations would definitely be impacted by the kind of tax treatment that they get from the government.
14. Moral suasion could appeal to the consumers to create initial demand for goods manufactured by a newly established rural economic unit. However, sustenance of that demand would depend on the product features, quality and service. Quality could be the USP of goods manufactured by rural industries. Awareness about such products would need to be created and media support can help in bringing them. Initial demand once created can be expected to create the momentum required to sustain and grow in the future.

15. A lot majority of urban people hold concern for the larger society and understand the implications of unequal economic growth in the long run. The ill effects of unequal economic growth and consequent migratory phenomenon to cities have become visible now and are increasingly being felt by them. However, conversion of such social intentions into significant initiatives is not taking place. Though there could be various reasons for this at individual level, lack of an integrated strategy which can combine the diversity of resources and offer a scope for different section of people to participate, is one reason felt at a common level.

5. FRAMEWORK

The solution proposed by the Focused Group lied in creating local employment opportunities which are skill dependent and for which young and aspiring individual in theses villages can be trained for. The following discussion is based on the analysis of the focused group discussion:

The establishment of complete business units in these areas with all the major functions to be handled by local people can actually create income, for the rural economy and to be used by the rural economy. The most important hurdle in this is the lack of proper infrastructure. Basic infrastructure like, roads, power, telecommunication services etc. is a prerequisite to the running of any modern-day business unit and thus becomes the responsibility of governments to ensure that they are in place. However, despite these there are many other hurdles in establishing such business units like:

1. The uncertainty in demand for goods manufactured by such units
2. The training and education needs of such employments
3. Legal and regulatory hassles and,
4. The most important, Finance

Though there are many microfinance companies and a few venture capitalists but none have actually come forward to help these people with social obligations in mind. Despite having the capabilities, innovativeness, creativities and hard work abilities, they belong to BPL (below the poverty line) category for the lack of finance, awareness and proper training. A few NGO's and Grammeen representatives have powerful micro financing model but they too have business principle and market competitiveness in mind.

The government of India from time to time has brought many employment generation schemes, the latest one being PMEGP (Prime Minister Employment Generation Program). It has also set up many financial institutions like NABARD, and other rural and industrial development banks for financing of various projects pertaining to rural sectors. Rs.4485 crore is the estimated outlay for subsidy under PMEGP for 2008-09 to 2011-12. Since it does take a lot of money to be spent by the government on such efforts, indeed the success of such public spending becomes critical for the entire economy.

It was felt that though government, few agencies and some of the market players have been working in this direction, a paradigm shift is needed. There is a need to involve society at large. There is a need to utilize human resources and their respective affordabilities in monetary as well as non-monetary terms so as to accelerate socio-economic growth and bring improvement in quality of life. People from different economic strata need to be brought together and unemployment should be a common concern for all since on a broader note every one gets affected when unemployment rises. Unemployed youth indulge into unsocial and criminal activities and add threat to the society at large especially, to those belonging to upper economic strata; migrants seeking employment opportunities add to any city's population, pollution and traffic. No one in the

long run will remain unaffected. It is a ripple effect which needs not only attention but concern and effort of all in the country. A balanced socio-economic growth will benefit all. Government's drive is directed to take us in this desired direction but it's working in isolation may not actually take us to the required growth rate.

What we are talking about here is also related to care for human kind. The concept of philanthropy is not new in India. India is a country where the culture has been giving. The preaching of Buddha is imbibed in our culture. People need to wake up to the signs of trouble arising from economic disparity and look within our culture to seek solutions. The recent visit of philanthropist Warren Buffet and Bill Gates to India in order to induce Indian billionaires to share their wealth for social cause is a welcome move in this direction. However, we feel that the scope of appeal needs enlargement in terms of the nature of contribution sought thereby, extending the appeal base. We feel that the kind of philanthropy needed for achieving 'growth for all' is the one which would contribute to a culture of collaboration. In this context the closest definition of philanthropy would be the one by Alexis de Tocquevillewhi[27] who defines it as, "voluntary associations" — which is to say, "private initiatives for public good, focusing on quality of life".[8] Able people in terms of money, skill, knowledge, creativity and access need to come forward. Monetary donation alone will not help. An overall climate for inclusive growth needs to be created and inculcated wherein each entity can foresee not only its self growth opportunities but also its safety and satisfaction in the growth of the economy as a whole. In the pursuit of such a vision it is not difficult to believe that any model which is entirely based on charity will find itself difficult to sustain. A profit driven system serves the drive needed to run and inspire a system in the long run. However, it is felt that profit should have important but limited role in the functioning of a system designed to realize the vision of creating employment for all. Combination of motives; social, moral and economic along with policy and financial support from the government would create a sound economic system which can create local employment and increase per capita income.

The proposed framework rests on three pillars namely (Figure-1):

1. Social Intent
2. Voluntarism
3. Policy Support

5.1 Social Intent: All the entities in the framework need to have social intent. The term social intent used here is an integrated approach towards the well being of self and society as a whole. Agencies with social intent are not devoid of profit motive but their approach towards making profit would be different. For them profit/growth is not a mere monetary measure but is long-term and a multi-variate dimension. It includes growth and gain in financial position, social security and self satisfaction. An entity with social intent perceives contribution to the society not only as a deed of generosity but also as a way of serving for his long-term survival and sustenance.

5.2 Voluntarism: Voluntarism is the act of implementing one's social intent. It calls for the conversion of intent into specific actions. It involves making contributions towards the implementation of ideas involving social intent. These contributions as said earlier are not necessarily monetary in nature. For the blue print of any feasible project idea finance would mean the blood supply however, such an idea would involve many other aspects right from its inception and till its execution. The people who are going to make wise use of the funds using their knowledge, skills and hard work are equally important. When we mentioned about Indian culture being generous, it was also based on our experience of coming across people from different income strata that always look to do their bit for the society. They look for agencies which can channelize their resources for the social purpose. We also experienced that people normally associated monetary contribution

with charity and social work and when informed about other non-monetary ways, they felt social work to be more affordable. An agency working for rural upliftment needs to capitalize on different resources of willing contributors however, will is important. One can go about spreading information and awareness before soliciting the required contribution but at the end of it, it has to come voluntarily.

5.3 Policy Support: A well designed policy framework will be detrimental in creating the overall climate inducting 'growth for all'. It would act as catalyst to mobilize the voluntary contributions full of social intent. Support through subsidies, tax relaxations, speedy project approval and credit advancement would be looked upon. Though the framework is not entirely free of profit motive, these policies should be made in light of the specificities of the project and its beneficiaries. It means that the policy framework needs to be flexible enough to incorporate the creativity in ideas and variance in local situations. It necessarily needs to be a flexible and customized support process and will differ according to the project nature and requirements.

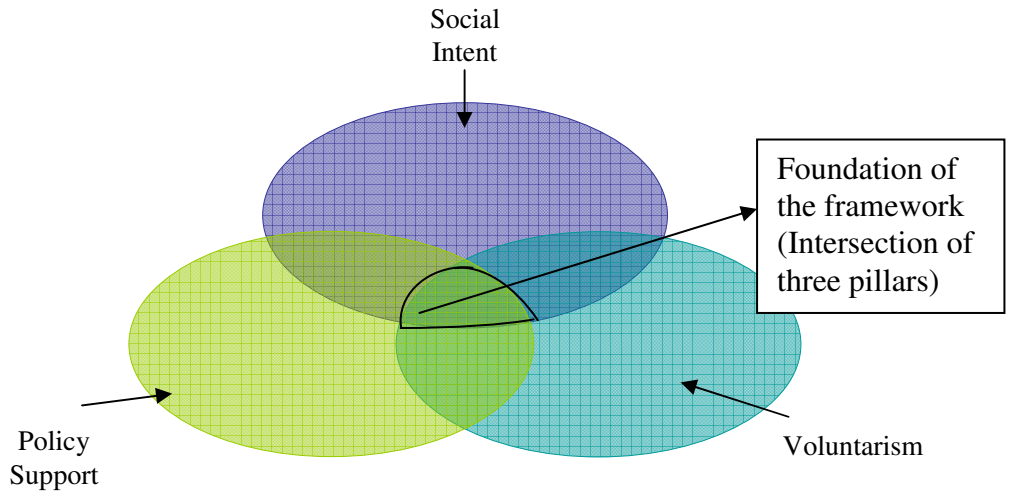

Figure-1: Foundation of the Framework

5.3 The Framework

In the process of building a local economic/business unit, the first step would be a proper analysis of the targeted area with a view of identifying possible income generating opportunities given the local conditions. A typical rural economy will have abundant manpower but with low education levels, lack of employment skills and lack of awareness about the sources and various uses of finance. The positive side would be the availability of young lot with at least basic level of education and with high training potential. These young individuals can be trained for specific skill set needed to carry out various core and subsidiary functions in any planned business unit. A planned business unit will comprise of certain core functions and other subsidiary functions. Both of these functions will be carried out by the local man force. A core function will be defined as those that deal with producing the core product/s of the business unit. The supporting functions which enable the unit to find demand and reach to the customers in the desired form will constitute

subsidiary functions. For instance, if a business unit has four core divisions dealing with manufacturing of bakery products, poultry products, textile, and readymade garments; it will have its subsidiary divisions such as packaging and labeling, sales and transportation, accounting and finance management, human resource management etc. The subsidiary division will be common for all the core divisions. For instance, packaging division can package the produce of all the core divisions.

The nature of the work would be such that it requires only basic education and specific skills that can be imparted through training. Also, the unit should not be capital intensive, at least not for the initial years.

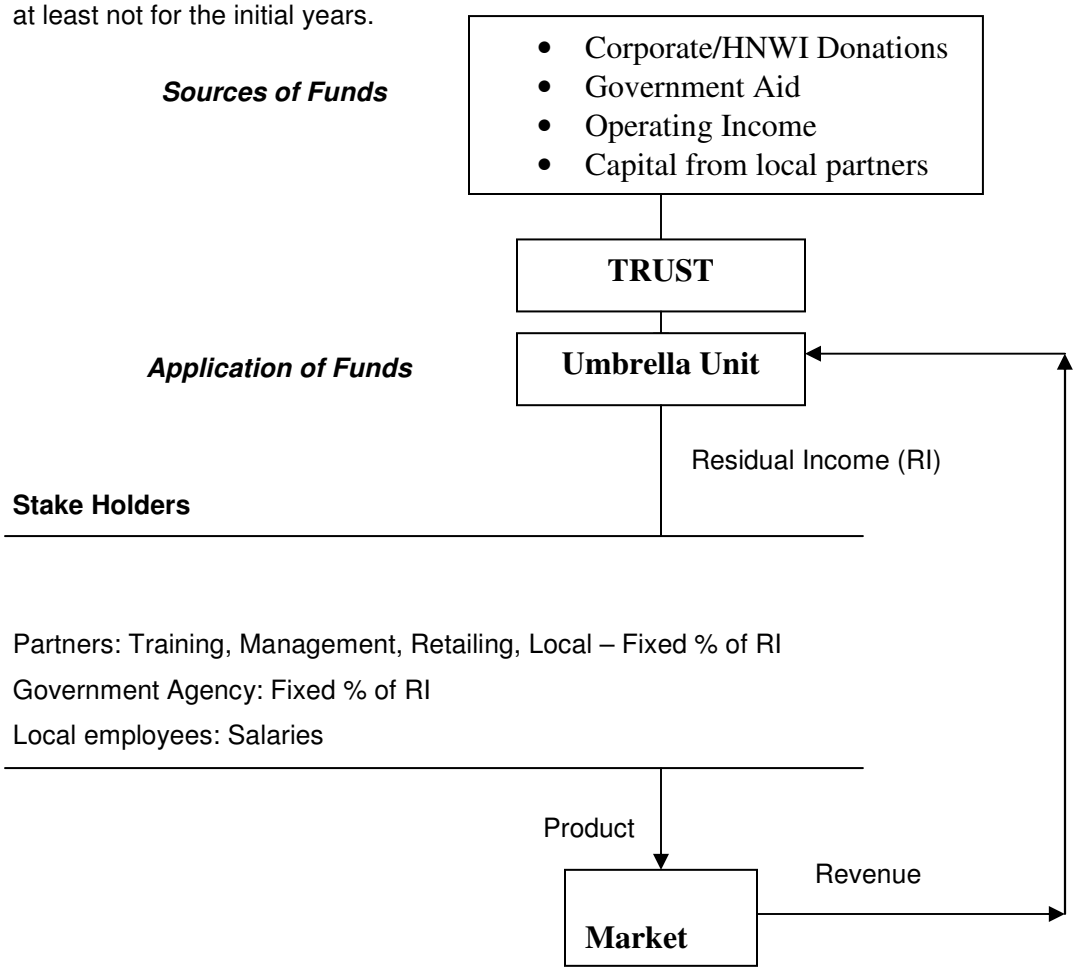

Figure-2: Conceptual Framework for rural employment generation in India

The organizational structure (Figure-3) would be functional and designed to be simple and as flat as possible for a planned level of performance. It would be build around public and private partnership. Though the essence of this structure would be partnership and profit sharing, the subsidiary function would constitute of only salaried employees. This is in order to provide opportunity to those villagers who have nothing to offer for a stake holding. These employees will be necessarily locally employed and will carry out the

subsidiary functions after receiving proper training. The profit percentage for each partner will be defined by the proportion of his investment. This would be measured as the total value invested by the specific partner in proportion to the total capital needed for the unit. The value of investment becomes important here since the partners can not only invest monetary capital but also their services. Determination of the monetary equivalence for such capital will be important and can be done taking the market prices of such services into account.

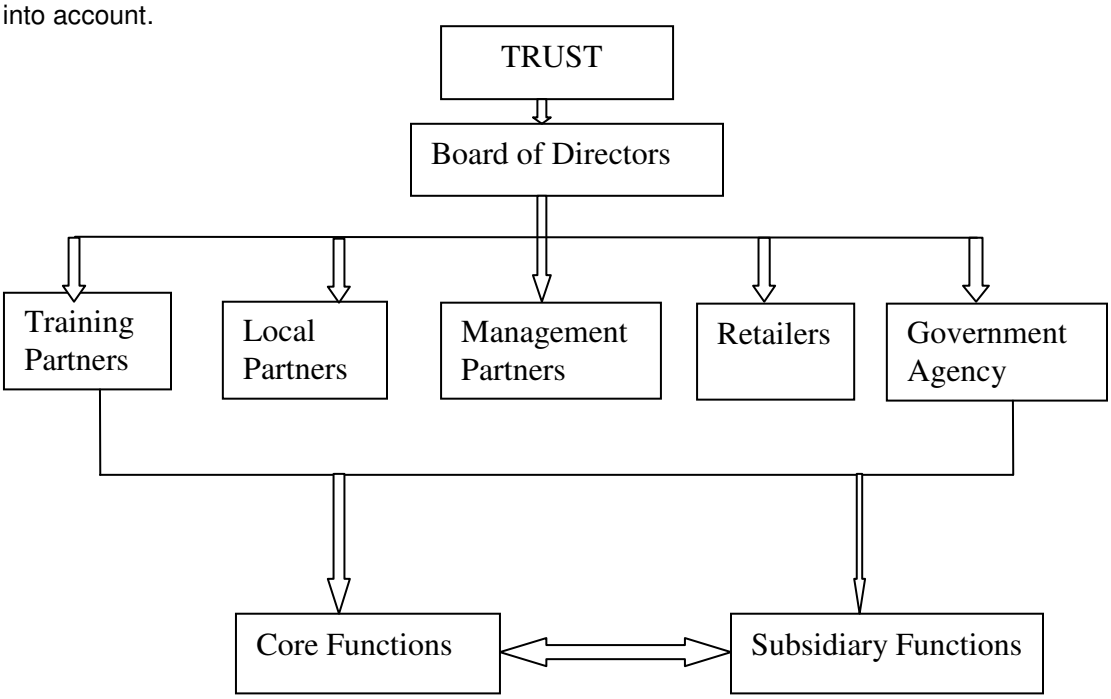

Figure-3: Organizational Structure

The proposed framework has five key partners namely, management partners, training partners, retail partners, state partners and local partners. The partnership will be in the proportion of the invested amount. These partners will not be the owners of the enterprise but would be partners in its operations. The first four of these partners will hold experience and expertise in their respective areas of management, training, retailing and, project monitoring and approval. Each of these partners will have their roles and responsibilities clearly defined without any overlapping. The management partners with their expertise and knowledge in the area of setting up and running of a business enterprise will be preparing the detailed business proposal integrating various core and subsidiary functions into one umbrella enterprise. They would also establish the feasibility of the business plan through various pilot tests designed by them for this purpose. After establishing the feasibility of the plan, the proposal would be shared with the state partners which would be a government agency or officials representing the government. This agency will be further evaluating the process for its feasibility and economic viability. Once a proposal gets approval from the government agency it would be further needing policy support. A trust would be formed under the Indian Trusts Act to implement the proposal. An official trustee may be appointed by the court and the trust can be administered. An executor of a will may become a trustee by his dealing with the assets

under the provisions of the will. The property or enterprise assets from which income would be derived would be held under this trust. This property/enterprise would be held wholly for charitable purpose of creating and promoting employment in the target rural area. The enterprise would not work to benefit of any particular religious community or caste. Separate books of account would be maintained by the trust/institution of this proposed business unit. No part of the income would directly or indirectly be for the benefit of any specified persons.

The government agency would provide a grant of funds to the trust to finance some part of the total project cost and will further partner in the operations of the proposed enterprise by contributing some percentage of the working capital cost.

The remaining fixed capital would be sought in terms of donations from the corporate houses and HNWI's. The enterprise being run by a trust and having partnership from government in its functioning will be worthy enough to attract donations. Donations would be pooled from various corporate houses having social intent and discharging it as a corporate social responsibility activity. Since the enterprise would be charitable in nature and will have government participation and approval, donations to this trust fund would be government related and therefore they should be covered under The Income Tax Act, section 80G. It means that unlike 50% deduction for donations to non-governmental charities, donations to this fund will entitle the donor to a 100% deduction from his taxable income. Tax exemptions according to the provisions of section 11 should apply to the income of such enterprise since it would be run by a trust with a charitable purpose of providing and promoting economic relief to the poor. The business would be carried on by the enterprise wholly for income generation for the rural unemployed and the work in connection with the business will be mainly carried on by the beneficiaries of the enterprise who are belonging to low economic strata.

The produce of such business units should be certified by the government agency after a thorough quality testing done by experts from the related field. It will build the product's credibility in the eyes of the customers and help find initial demand in the markets.

Such items should be free of sales tax for the initial years after which it can be subject to normal tax laws. This would help the unit sell at competitive/aggressive prices and penetrate the markets. Though the enterprise would meet most of the conditions for exemptions, there might be some specific factors which will have to be accommodated in the policy keeping the larger scheme of things in mind.

The partnership role of training and management partners would be based on their social intent and would be reflected through voluntarism in their knowledge investments. The training for skills needed to carry out the core as well as subsidiary functions have to be highly specific, qualitative, cost effective, and meticulous and result oriented. A trainer on salary or contract of service is thought of lacking the quantum of zeal needed for this purpose. Since, training is the backbone of this framework, suitable interest of the training institutes/partners at all stages has to be sustained. Profit sharing in the framework is to ensure the due sustenance of this voluntarism. Social intent however, would be the strongest motivational force for them to partner in such an enterprise.

Training partners will comprise of different resource persons/agencies accountable for training the identified local talent on the identified skill. Management partners would be consisting of participants from the management institutions/industry who are experienced and capable of teaching and managing the practice and implementation of various business activities concerned with different functional areas in the enterprise. They will be the ones to initiate the proposal and to take it through various stages. The profiling of each partners in the framework is utmost important since the performance of each is detrimental to the success of the proposed employment unit.

Retailers are businessmen. It's hard to influence their profit making approach. To expect them to stock the produce with social intent in mind could be possible in the short run but without a proper incentive they would lack in their efforts to promote its sales. In a market full of established products, this becomes important. Therefore, partnering with them would be more useful a strategy. Also, their inputs can be very useful in product and product related decisions. It is suggested that the goods manufactured by rural units can be either a convenience or shopping good however, if they are made from organic substance, it would increase their salability.

Additionally, media channels can be explored for the promotional activities of such an enterprise. The role of media would be a good example of voluntarism with embedded social intent wherein it gets no stake in the unit but still would help the unit reach its audiences. The framework to be implemented needs coverage through awareness programs and not advertisement. Such awareness programs would appeal to the social intent of the people/potential customers and urge them to exhibit voluntarism by subscribing to those products.

6. CONCLUSIONS & RECOMMENDATIONS

If public policy for upliftment of rural population works in isolation with few staggered schemes, there is very little hope for rural transformation. Also, emphasis only on agriculture and its allied forms of employment will corner these areas into traditional segments. There is a need to uplift the capacities of these areas by supplying what it lacks and by building further on what it already has. It is recommended that policies should recognize each rural location in terms of its own unique economic and production difficulties. Rural employment generation should be seen as a shared responsibility and should draw on the competitive skills of various sectors of the economy for the cause. Rather than devising programmes for poverty alleviation, government should partner with different private agencies of the urban economy and facilitate the building of complete economic units which can involve and absorb local citizens in the value chain. It should facilitate new institutions based on alliance between various stake holders (local citizens being one of them). In order to empower the rural sector and make it self-managed and self-governed in the long-run, it is not only important that economic activities are initiated locally but also that they are sustained and grown in future. Therefore, the framework for rural employment creation must have certain inbuilt motivators for enhancing the competitiveness and performance of such employment units. Those who assume stakes in such units must be rewarded through creation of economic profits for them. However, the policy must ensure the supremacy of institution's social character. It is recommended that the operational functions should work for creating economic profit while the ownership of the assets should lie with a trust form of organization. Local rural residents should be one of the stakeholders in such an institutional framework for creating employment and income in the rural economy. In order to ensure strong alliance between individual and collective interests, partnership is recommended as the form of association between different stakeholders in the framework. The basis of partnership could be the proportion of contribution made by each stakeholder. Since this new institution will mobilize both tangible as well as intangible resources of different agencies of the society, the contribution should be measured as the monetary market value of those resources.

Local rural citizens will undoubtedly be the largest beneficiaries of a rural employment generation unit. With the opportunities created locally, there will be fewer chances for their dislocation from the families and financial distress. Creation of wealth through such opportunities will raise the living standards of the entire local economy through multiplier effect. Government by facilitating the mobilization of resources from different members of

the society will face far less cost of creating growth in rural economy. It will not only ease out financial burden of the government but also the procedural, and operational. If such units operate successfully in the long-run, they will eventually benefit the national economy and will work towards filling the gaps in economic growth across the country.

Management institutions can take active role in the design, implementation and management of such institutions. They can equip the socially motivated students with powerful tools required for establishing and running such units. These will include principles of finance, marketing, strategy, economics, and management science. Such socio-economic pursuits could be part of their summer projects and areas for faculty research. Management institutes can also initiate short-term programmes on rural employment opportunities and skills. They can help in the creation of region specific proposals and can offer consultancies to the policy makers. Management education is quintessentially professional education however, one of the criticisms of management education has been that the industry is irrelevant because it is full of abstract noodling and is hardly close to practice and real world. Focus in this direction can help the industry make undisputable impact in the economy and prove that it has never been priesthood and scholarly, but is relevant and practical. Such pursuits are also important since proliferation of management education globally has put pressure on the industry to either adapt or shrink. In the quest of finding a differentiator for survival, such pursuits could be very useful and will provide the industry a meaningful existence in the society.
Investments in such units will help other stakeholders like Corporates, training firms, and retailers find a more meaningful way of discharging their social responsibilities. It will also serve their core business objectives by providing them opportunities to expand their operations and markets and make profits through operational efficiencies and synergies. Media houses can provide impetus to such initiatives by bringing awareness at all stages. They can be the binding agent in the system and can greatly help in finding an initial demand for rural produce. Coverage of such pursuits' ideally should be a part of their duty which entails educating and informing the public. However, there have been increasing instances where media has been accused of sensationalizing news and focusing only on programmes that increase their TRP ratings. Though commercial viability of such reporting is understandable, alongside coverage of social information such as rural employment issues and efforts would help them establish a sensible and socially responsible image.
The study concludes that policy makers should make efforts to create a state of employment in the rural areas because that would ultimately give them the status of being a self-managed economy. The subsidized credit based schemes or injection of capital in these areas through various financing models can create the thrust for growth and income but this seems to be not enough. These areas are under cultural conditioning and lack the essential skills to develop on their own. They would therefore, along with the initial thrust, need the right direction to grow and develop. This would definitely call for an integrated effort by a larger section of the society as proposed in the framework.

A logical extension of the present work in the future would be to implement the model and test its performance in order to explore and highlight the anomalies if any. This will require great amount of funds necessitating the need for research grants. In addition, it would require mobilizing the resources of people who can assume stakes in this endeavor. The effort would be time-consuming and demanding but, for the results envisaged, it is worth investing.

REFRENCES

1. National Informatics Center, "Economic Survey." Available: http://indiabudget.nic.in/survey.asp [Mar. 10, 2011]
2. CIA World Fact Book. (2007). "Population Below Poverty Line." Available: https://www.cia.gov/library/publications/the-world-factbook/fields/2046.html [Mar. 11, 2011].
3. Index Mundi. (2010). "India Unemployment Rate." Available: http://www.indexmundi.com/india/unemployment_rate.html [Mar. 11 2011].
4. Labor Bureau of the Government of India. (2010). "Report on Employment and Unemployment Survey". Available: http://labourbureau.nic.in/Final_Report_Emp_Unemp_2009_10.pdf [Mar 20, 2011]
5. Indian Brand Equity Foundation. (2008). "Rural Market". Available: http://www.ibef.org/Archives/ViewArticles.aspx?art_id=20071&cat_id=937 [May 11, 2011]
6. R. Bijapurkar & R. Shukla (2008) "Spotlight on rural consumers." Available: http://www.ncaer.org/downloads/MediaClips/Press/RajeshShukla-Spotlight%20on%20rural%20consumers.pdf [Mar. 11, 2011].
7. Associated Chambers of Commerce and Industry of India. Available: http://www.assocham.org/prels/printnews.php?id=2689 [Mar. 11, 2011].
8. R. Fabella. "Rural Nonfarm Employment in the Philippines: Composition, Growth, and Seasonality." In R. Shand, ed., *Off-farm employment in the Development of Rural Asia*. National Centre for Development Studies, Australian National University, Canberra, 1986.
9. D. Coppard. "The Rural Non-farm Economy in India: A Review of the Literature." Report No. 2662, Natural Resources Institute, University of Greenwich, London, 2001.
10. D. Van de Wall. "Is the Emerging Non-Farm Market Economy the Route Out of Poverty in Vietnam?" *Economics of Transition* 12(2), pp.237–74, 2004.
11. M. Rosegrant and P. Hazell. *Transforming the Rural Asian Economy: The Unfinished Revolution*. New York: Oxford University Press, 2000.
12. P. Hazel and S. Haggblade. "Farm-nonfarm Growth Linkages and the Welfare of the Poor." In M. Lipton and J. van der Gaag, eds., *Including the Poor*. World Bank, Washington, DC, 1993
13. C. Manning. "The Green Revolution, Employment, and Economic Change in Rural Java: A Reassessment of Trends Under the New Order." Institute of Southeast Asian Studies, Singapore, 1998.
14. M. Khmana. *Agricultural Development and Employment Patterns in India.* New Delhi: Concept Publishing, 1992.
15. C. David and K. Otsuka, eds. *Modern Rice Technology and Income Distribution in Asia*. International Rice Research Institute, Los Banos, 1994.
16. T. Reardon, K. Stamoulis, A. Balisacan, M.E. Cruz, J. Berdegue, and B. Banks. "Rural Nonfarm Income in Developing Countries." Special Theme, State of Food and Agriculture, Food and Agriculture Organization, 1999. Available: http://www.fao.org/docrep/w9500e/w9500e12.html [Oct. 16, 2011]
17. A. Saith. "Asian Rural Industrialization: Context Features, Strategies." In J. Breman and S. Mundle, eds., *Rural Transformation in Asia*. Walton: Oxford University Press, 1991.

18. J. Estudillo and K. Otsuka. “Green Revolution, Human Capital, and Off-farm Employment: Changing Sources of Income among Farm Households in Central Luzon, 1966–1994.” *Economic Development and Cultural Change* 47:497–523, 1999.
19. L. Zhang. “Off-farm Employment in Relation to Small-scale Livelihoods and Natural Resource Management in China.” In Saxena, K., L. Liang, Y. Kono, and S. Miya, eds., *Resources Management in Marginal Areas: Case Studies in Monsoon Asia*. Proceedings of an international symposium sponsored by the United Nations University, Center for Southeast Asian Studies, and Japan International Research Center for Agricultural Sciences, October, Tokyo, 2003.
20. M. Hossain, D. Lewis, M. Bose, and A. Chowdhury. Rice Research, Technological Progress, and Impacts on the Poor: The Bangladesh Case (Summary Report). Discussion Paper No. 110, Environment and Production Technology Division, International Food Policy Research Institute, Washington, DC, 2003.
21. T. Wandschneider. Determinants of Access to Nonfarm Employment: Evidence from Africa, South Asia, and Transition Economies. Report No. 2758, Natural Resources Institute, University of Greenwich, 2003.
22. R. Som, U. Kleih, Y, Kumar, and S-K. Jena. Rural Nonfarm Employment in Madhya Pradesh: Findings of a Participatory Rural Appraisal in 8 villages. Report No. 2694, Natural Resources Institute, University of Greenwich, 2002.
23. D. Yang. “Education and Off-farm Work.” *Economic Development and Cultural Change* 45(3):613–32, 1997.
24. L. Zhang, S. Rozelle, and J. Huang. “Off-Farm Jobs and On-Farm Work in Periods of Boom and Bust in Rural China.” *Journal of Comparative Economics* 29(3):505–26, 2001.
25. E. F. Fern. “The use of focus groups for idea generation: The effects of group size, acquaintanceship, and moderator on response quantity and quality.” *Journal of Marketing Research* 19, 1-13, 1982.
26. R. A. Krueger, and M.A. Casey. Focus Groups: A Practical Guide for Applied Research. 3rd ed. Thousand Oaks, CA: Sage Publications, 2000.
27. Alexis de Tocquevillewhi. “Philanthropy.” Available: http://en.wikipedia.org/wiki/Philanthropy [Feb. 11, 2011]

The Diffusion And Implementation of Innovation

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Abstract

In their efforts to try and meet the requirements of the 'new economy', corporations would be helped with a conceptual framework in which their innovative business models are combined with new perceptions of knowledge creation, the diffusion and implementation of innovations and change management. To come up with adequate problem analyses and (business) solutions for the complex issues they address, corporations need not only technological knowledge, but also have to gain insight into how technologies relate to the values of people, and how they can be implemented successfully. Action research set up in the form of reciprocal Human Resource Management projects is particularly designed to create solutions and implement strategies that cover this whole spectrum. In a corporate effort of academic researchers and experts in the field, technological and practical knowledge and skills are integrated in a mutual learning and knowledge creation process aimed at the implementation of innovative solutions. With that, it provides an answer to the call for a new knowledge and innovation paradigm that serves to support the 'new economy'.

Keywords: Knowledge Creation, Diffusion of Innovation, Technology Implementation, Change Management.

1. INTRODUCTION

In this era, in which we are faced with complex global issues that challenge our hopes for a long-lasting and prosperous future on earth, the need for innovative solutions is evident. To achieve these solutions, we are in demand of sustainable technologies which enable us to enter new avenues. Promising technologies only form the start of the transformations that have to take place though. In order to guarantee the diffusion of these technologies, we need to expand the academic research field and take issues such as politics, economics, planning, and communication into consideration too. For only when the whole chain that is involved in the actual implementation of new technologies is adequately aligned, can we expect technologies to be put into practices successfully. Companies and organisations operating in fields where people, planet and profit convene, are becoming more and more aware of the fact that we are in need of new models for the transfer and use of knowledge, in which this chain is taken as point of departure. In this article, I try to put forward an approach that can be helpful in building bridges between science and society, by offering a methodology in which academic researchers and practitioners work together go not only come up with useful innovative technologies but also make sure that they find their way into concrete societal and business practices.

2. FROM KNOWLEDGE GENERATION TO KNOWLEDGE CREATION

Innovative solutions usually address complex problems, which are often described as 'wicked problems' ([1] Brown et al., 2010) because of their unstructured character, unclear and discipline-transcending boundaries ([2] Mason & Simmons 2011, p. 162) and the lack of consensus regarding the question what strategies or solutions would be adequate to tackle them. The issues

are so complex, because they imply questions that not only relate to technological matters of fact (truth), but also to motivations and norms (values), and power factors (influence) (cf.[3] Nonaka, 1994, [4] Toulmin, 2001).

Traditionally, universities concentrate on the first aspect: the truth and nothing but the truth ([5] Habermas 1968, [6] 1969/1974, [7] 1981a). Their goal is to produce objective, value free and universally valid knowledge with which new models and technologies can be designed. Gibbons et al. ([8] 1994) and Nowotny et al. ([9] 2001) refer to this type of knowledge as mode one knowledge. It is a highly valued type of knowledge and rightfully so, since it is an important potential source for innovations in business, industry, and society at large. But this type of knowledge has its limitations and can only to a certain extent be expected to be useful outside the controlled environment of academic research settings. The obvious lack of the presumed 'trickle down' effect, resulting in the at least in Europe often quoted 'knowledge paradox', is illustrative in this respect. Universities and public research institutes generate an impressive innovative potential, but the pipeline perspective which assumes that knowledge flows from university research to industrial practice ([10] Laursen & Salter 2004, p. 2 in OECD 2002) seems too optimistic, for the science-to-industry spill-over is relatively low ([11] Ebersberger et al 2012).[i] This is rather unfortunate, in a situation where the transfer represents such a strong asset of our knowledge-based economies ([3] Nonaka, 1994, [12] Nicolopoulou, 2011, p. 526) in which the knowledge broker role of universities could play such an important role ([10] Ebersberger et al 2012, p. 74).

2.1 The end of the pipeline perspective

The 'fault' for this lack of transfer of knowledge form universities to companies lies neither with the universities nor with the corporations. Rather, it is the character of mode one knowledge production that causes the gap. First of all, we must realize that mode one employs a kind of knowledge that pertains to only a limited range of the actually broad rationality spectrum. It is specifically designed to produce cognitive-instrumental knowledge (facts and new technologies) and wishes to refrain from normative aspects and power factors that are also inherent in any rational learning process, but are much more 'messy' ([5] Habermas 1968, [6] 1969/1974, [7]1981a, [4] Toulmin, 2001). Secondly, mode one knowledge falls short where the aspect of implementation is concerned. Focused as it is on the task to produce knowledge that is generally true, it leaves business companies and society empty handed with regard to the question how this knowledge can be successfully used and implemented in concrete practices ([8] Gibbons et al, 1994, [9] Nowotny et al, 2001). Mode one clearly coheres with the component or element view of knowledge management (what facts are true, what technological knowledge do we have?), but has little to say about the architectural aspects and process of knowledge and change management (how do we diffuse this knowledge in society and how can we use it?) ([13] Balogun & Jenkins 2003, [14] Preuss & Córdoba-Pachon, 2009).

2.2 Enter corporate creative processes

Thus, the traditional approach to knowledge production does not form an adequate approach to help answer innovative questions ([3] Nonaka 1994), which have an economic background or are related to consumer issues, policy matters and politics. Instead, these issues ask for an approach that helps corporate actors to use technological, scientifically legitimated solutions to address the challenges they face in the modern economy. Quite recently, we have seen the rise of such an approach, in which academic and practical experts share their knowledge, experiences and skills in cooperative projects in an effort to analyse the problem together and subsequently try to come up with innovative (business) solutions. Gibbons et. al ([8] 1994, p. 11) refer to this relatively new approach as mode two knowledge creation. Mode two builds upon the mode one knowledge produced by disciplinary experts. But it also relies on the practitioners from the particular work field under study, who bring in their own expertise. This can be experts from every layer of the company or the broader network, e.g. managers, employees, users or other stakeholders. As mode two problem-solving approaches transcend not only boundaries between academic disciplines, but also between the academic and the non-academic world, these processes of co-creation ([3] Nonaka 1994, [12] Nicolopoulou, 2011, p. 529) can be regarded as transdisciplinary research practices ([15] Repko 2008, p. 15, [1] Brown, 2010).

2.3 From tunnel vision to a broad rational approach

In mode two, the rationality concept that is used will not remain confined to the cognitive-instrumental rationality that reigns mode one. For in the rational learning process implied in the practice-oriented knowledge co-creation, not only issues concerning how things work (causal explanation and technological solutions), but also issues concerning norms and power relations will need to be addressed. Surely, the problem analyses will be based on scientific explanations that have been extensively tested and proved. But they will also incorporate the motivations and values of potential customers, just as the solutions that are contrived will take into consideration existing legislation, power blocks and other factors that may enhance or hinder a successful introduction of the innovative technologies and strategies. It wouldn't be particularly rational to leave these aspects out during the learning process. In the same way, the question of how to apply the available technological knowledge is explicitly subject of attention in mode two. It might even be said that the implementation of the innovative technology is at the heart of the knowledge creation process. And it is here, of course, where the knowledge and experience of the practitioners, be it management, employees or customers, is of great value.

3. DIFFUSION OF INNOVATION – FROM CREATION TO IMPLEMENTATION

3.1 … And action!

Within the transdisciplinary methodology of action research, academics and practitioners work closely together to find knowledge, formulate solutions to a particular problem, develop action strategies, and to implement, monitor and evaluate these strategies. As such, it can be regarded as an approach that shows a remarkable resemblance to the process of co-creation typical for mode two ([16] Greenwood & Levin 1998, p. 50 & pp. 109-110). What is more, it also closely corresponds to the needs that incited mode two knowledge co-creation. Those needs being, first of all, that the generated knowledge covers the whole range of the rationality spectrum, and not just the technological, cognitive-instrumental aspects (cf. [3] Nonaka 1994, [13] Balogun & Jenkins 2003). Secondly, and closely related to the first one, it means that the knowledge creation does not stop in the generation phase, but also stretches to the phase in which these new-found technology is applied and tested on its effectivity in real-life practices.

Though the original sources of inspiration lay elsewhere (see [16] Greenwood & Levin, 1998; [17] Reason & Bradburry, 2001; [18] Boog et al., 2003), action research is intended and designed to generate knowledge that enhances the realisation of innovations and social change, just as mode two knowledge is meant to do. Breaking with the traditional role division, academic researchers share brains and join hands with those of the people in the work field. Action research projects are preferably situated within organisations, as organisations have communal and, ideally, shared frames of reference. These frames of reference usually contain a future vision and explicit mission statement regarding the core values and/or core business of the organisation (depending on whether they are profit, not-for-profit or non-profit organisations).

3.2 Innovation as an iterative problem-solving process

At the start of an action research project, both parties declare a mutual commitment to the challenge at hand. Though their interests may differ – the academics being mainly interested in technological or theoretical knowledge, the company in useful practical knowledge – the project can be mutually beneficial and serve both objectives. After that, they will make an inventory of the issues that need to be addressed and formulate a collaborative problem definition (inventory phase). In the next phase, the academics and practitioners jointly discuss what are the main issues within the defined problem cluster (diagnostic phase). At the end of this phase, they try to develop an action strategy that entails an answer to the problems and ideas for possible solutions, e.g. a new technology. Subsequently, they work on the implementation of that strategy (action / implementation and evaluation phase), meanwhile carefully monitoring the process and evaluating both its intended and unintended effects (cf. [19] Moser, 1975; [20] Coenen, 1996; [16] Greenwood & Levin, 1998, p. 116 & p. 163; [17] Reason & Bradburry, 2001).

The co-creative project forms an iterative problem-solving process, so the different phases must not be viewed as strictly separated compartments. In all likelihood, only in the diagnostic phase will the problem definition develop from preliminary ideas into more definite research questions and objectives. And the action or implementation phase will hardly ever be spared from unintended negative effects, which will give reason to review and adjust the planned strategies that were the result of the crystallisation phase. This way, action research projects will take the form of iterative, cyclic processes in which knowledge creation and learning takes place as the parties go along.

In action research, the quest for new knowledge and technologies is combined with an investigation into the norms, values and motivations of the corporate actors, their partners and customers, and of existing power structures that might hinder a efficacious implementation of the designed technologies and strategies. And it does not stop after charting those factors. In a continuous process, it tries to adapt to these factors as best as possible. If this does not prove successful, the research parties join forces again to reflect upon the findings, make the necessary adjustments to the technologies and strategies, and try again. The fluid transfer, i.e. the transition from the generation of new knowledge to the implementation of technologies makes this approach particularly interesting for business companies, whose predominant interest lies in the actual fruitfulness of the proposed innovation strategy in their specific situation.

4. CHANGE MANAGEMENT

4.1 Reciprocal value creation

As said, the sources of inspiration of action research are not quite the same as that of mode two knowledge creation. First and foremost, action research developed as a political and socially engaged form of research, intended to employ scientific knowledge to enhance democratization and emancipation (cf. [19] Moser, 1975, [18] Boog et al., 2003). Originating in the domain of the social sciences, the emphasis was put more on social improvement than on technological innovations. In proposals for innovative business models, the focus still mainly lies with technology ([21] Chesbrough & Rosenbloom 2002, [22] Chesbrough et al, 2006, [23] Chesbrough 2007). But in the 'new economy', where the focus is shifting from products to service-based value creation (cf. [24] Kindström, 2010), traditional boundaries seem to vanish or at least give cause to renewed reflection. If companies really want to develop sustainable innovative solutions, it seems wise that they think of ways to effectively combine the social and the technological aspects of the solutions.

In innovative business models the emphasis lies no longer solely with the company and the question what new product or technology it can bring to the market. Storbacka ([25] 2011), for instance claims that firms must move beyond selling and delivering ad-hoc solutions, and must start viewing solutions as processes, instead of as mere combinations of goods, services and knowledge elements. More and more, the company has to think about its place in a broader chain or network, how it can commit a customer to make use of a service within that chain, and stay in that network. From this perspective, the sustainable performance of the new develop technology and its value as it is perceived by stakeholders becomes highly importance for modern businesses ([26] Svensson et al, 2010, [27] Svensson & Wagner 2011, [24] Kindström, 2010, [28] Bilgin, 2012).

So, besides knowledge approaches, business approaches are in need of transformation too. In the new model, the relations between business and customers, and between businesses and the broader network become the core business. To be successful at that, companies need to adapt to the motivations, needs and values that drive the customers' behaviour (cf. [24] Kindström, 2010).

4.2 Innovation and the need for cooporative learning processess

Set up as a cooperative learning process that is fundamentally based on mutual respect for each other's competencies and builds on a relation of trust between the academic researchers and the non-academic co-researchers ([20] Coenen,1996, [29] Smaling, 1998, [18] Boog et al, 2003),

action research forms an inspiring approach for such innovative businesses. It clearly coheres with the definition of innovation as "a process in which the organization creates and defines problems and then actively develops new knowledge to solve them" ([3] Nonaka 1994, p. 29). As action research makes use of the broad range of available knowledge, expertise and competencies, it can also be viewed as a model for Human Resource Management. Whether it is theoretical knowledge or practical knowledge, subtle social skills or refined technical skills, all kinds of expertise and experienced are employed in the process of co-creation. Moreover, it appreciates the motivations, needs and other drives of those who are part of the company as important value sources, and tries to match these with the core values of the business. Particularly when sustainable value creation in the new business context is concerned, Human Resource Management can play an important strategic function ([2] Mason & Simmons 2011, [30] Sharma et al. 2009). Still, knowledge and change management often remain top-management driven activities, devoid of effective participation from the employees ([3] Nonaka 1994, pp. 29-33, [23] Chesbrough 2007, [30] Sharma et al. 2009, [31] Inyang 2011, p. 121, [32] Høgevold 2011).

But just as traditional approaches to knowledge production and business solutions fall short in meeting the requirements of the 'new economy', so do more conventional types of Human Resource Management. In a rough but hopefully illustrative characterization, we could say that 'hard' variants focus mainly on the needs related to the core business of the company and *manage* human resources strategically accordingly ([2] Mason & Simmons, 2011, p. 167, [33] Salaman et al, 2005, [34] Becker & Huselid, 2006), whereas 'soft' variants emphasize the knowledge and competencies of its expert workers and take their motivations and expectations as central point of departure in the *development* of the human resources ([2] Mason & Simmons, 2011, p. 168, cf. [35] Garavan, 2009). What seems most needed though, in the new business situation, is to cover the middle ground. In the new service-based economy, it seems crucial to find out what the core value of the company is or can be, what this entails, technologically, socially and economically, and how this can be matched – in a continuous process - with the available and potential knowledge and competencies of the corporate actors. Action research set up in the form of reciprocal Human Resource Management projects may be able to help cover this ground and restitute the missing link.

Defining a corporation as a body of people acting as one individual for business purposes, a company can be viewed as the result of the daily (re)production of the meanings, visions, norms and power relations within the corporation ([36] Coenen-Hanegraaf et al., 2001, p, 66, cf. [37] Giddens 1979 & [38] 1984). Taking as point of departure an innovative, reciprocal outlook on Human Resource Management, sustainable business practices can be developed in which the individual motivations and competencies of management, employees and customers are matched to the future vision and mission of the corporation. Mason and Simmons ([2] 2011, p. 168) view such a reciprocal approach, that transcends the dualism of 'soft' versus 'hard' Human Resource Management, as a precondition for any company that seriously wants to adopt Corporate Social Responsibility as a key driver of their business activities. Within this reciprocal approach, new business practices aimed at the creation of innovative, sustainable products, services and/or values are set up as projects. In the phase of value creation, the company defines a series of activities which yield a new product or service in such a way that there is net value created throughout the various corporate activities. In the phase of value capture, the challenge is to develop and operate the product and/or services in such a way that the company sees sufficient revenues from (a portion of) these activities to earn a profit ([22] Chesbrough 2006, [23] Chesbrough 2007, p. 12). The central point of departure is the aim to create a learning environment in which personal and collective learning trajectories are matched to each other so as to create an optimal fit.

4.3 A differentiated model for change management

Generally speaking, this will imply at least three steps. At the beginning of the project, the initial situation of the corporation will be assessed, i.e. the company's vision and mission are charted and its position in the broad network is sketched. The vision, mission and position are related to the primary and secondary process, which together provides a picture of the current general

outlook of the corporation. At the same time, the individual situation of the corporate actors is assessed so that relevant aspects, i.e. aspects pertaining to the future vision and mission of the corporation, can be charted. Next, there is a commitment to further develop the personal aspirations of the individual actors (from work floor to management), against the background of the companies´ intended future strategy. On the corporate level, this means that the future vision and mission are critically reviewed in light of the desired changes in (individual contributions to) the corporate strategies and that learning trajectories are developed to optimize the match. Last but not least, efforts will be made to improve the existing situation, i.e. to realize changes that are inspired by the goals and aspirations defined by the corporate actors. Subsequently, the trajectory of the company will be further developed, which means that the strengths of the individual actors are effectively deployed to jointly support and realise the corporate strategy. Finally, the attention will shift to the implementation of this developmental strategy in the daily business practices.

Kindström ([24] 2010, p. 483) states that, in order to shift towards a service-based business model, companies need to approach change in all areas of their business model. In scheme 1, I have adjusted the six common business model parameters that he uses (taking it from [21] Chesbrough & Rosenblum, 2002 and [23] Chesbrough, 2007) so as to align to the value creation that is put in a central position within service-based business models.

Phase	**Service-based Business Model parameters**	**Level of implementation**	**Implications for HRM**
Value creation	Value premises and Value proposition	Corporate vision	Defining the importance of an innovative approach for a successful future of the company
	Comparative value (Competitive strategy)	Mission and positioning of the corporation	Setting up the company as an innovative learning corporation aimed at service development and seeking for new service opportunities
	Customers of the value (Target market)	Primary process	Developing trajectories with users and/or potential customers
	Value chain	Primary process	Co-operation with other partners in the chain
	Value network (Company's ecosystem)	Primary process	Co-operation with other businesses in the network
Value Capture	Value revenue (advanced mechanisms to create profit, e.g. value-based pricing, variable value-based contracts, availability-based contracts or selling customer data)	Secondary process	Developing a learning trajectory at the company level, primarily driven by customer perceived value creation, instigating an innovation process in its culture, hierarchical structure, staff policies, reward structures, revenue mechanisms, and the planning of control of the corporate business activities

TABLE 1: The implications of a shift towards service-based business model for HRM (Based on [21] Chesbrough & Rosenblum, 2002, [23] Chesbrough, 2007,[3] Nonaka, 1994, p. 26, [24] Kindström, 2010, [36] Coenen-Hanegraaf et al., 2001).

5. THE CORPORATE UNIVERSITY – ACTION RESEARCH AS AN INNOVATIVE FORM OF RESEARCH & DEVELOPMENT

This process to aim both at an individual and collective level at learning and development trajectories, can be fed and supported by a knowledge creation process ([36] Coenen-Hanegraaf et al., 2001). In action research, this process is envisaged as a cyclic learning process in three phases. The support in the form of this alternative form of Research & Development (R&D), as action research can be understood to be, is explicitly designed to connect the individual competencies of the corporate actors to the collective actions that (re)produce the corporation, i.e. the business company as a whole. With Nonaka ([3] 1994, p. 33), we could denominate this pillar in the framework as the 'corporate university'.

To start with, a picture will be sketched of the initial situation of the corporation, i.e. in its vision, mission, and position in relation to the broader network within which the company operates. This is meant to gain insight in how the collective actions of the corporation relate to those of the other stakeholders. This insight will hopefully grow during the course of the research project. The focus and direction of the analysis will be determined by the objectives that were agreed upon at the start of the research process, and to which both the academic researchers and the corporate actors committed themselves. The shared mission and the overarching vision of the core business and/or core values form the anchor points of the individual learning trajectories and the learning trajectory of the company. They are pivotal to connecting both trajectories ánd to connecting the trajectory of the business as a whole to that of the broader network, including the customers.

This connection can be further enhanced by making explicit which definitions and interpretations are being used, which norms, needs and values prevail within the project, both for the academics and for the corporate actors. These discussions will form the basis for the problem analysis and the choice for the central problem cluster in the inventory and diagnostic phase. Different people can formulate these in various ways, but that does not necessarily need to hinder the formulation of a comprehensive strategy and implementation of innovative solutions that can be supported by all. As long as there is a shared framework, a shared vision on the direction that the corporation as a whole needs to take, the learning process can be successful. Equally, the actors need to agree on the values and norms that are leading the process, such as which ideals are worthwhile to strife for and the way people treat each other within the network. Moreover, a minimal degree of consensus is needed about the authorative power that is delegated to be able to carry certain responsibilities. Preferably, the power is not restricted to the top-management positions in the company's hierarchical structure. For promoting the creation of innovative knowledge and efficient technologies in business organizations, a 'middle-up-down management' model seems much more suitable ([3] Nonaka 1994, p. 29).

Note that this approach also allows room for diversity: the role that a person can and wants to play within the corporate process, will depend on each individual's specific trajectory, and consequently can vary to a considerable extent.[ii] Whether the whole corporation will immediately be involved in the implementation of an innovation or whether it is preferable to start with a pilot project, will depend to a large extent on the level of commitment of the various corporate actors.

When the individual trajectories are connected to the collective trajectory in a successful way, the corporation can move into the next phase: the implementation of the action plans with regard to the developed technologies and innovative strategies. As said, this process evolves in a cyclic way: evaluation of the strategies can lead to more refined insights and more elaborated strategies or to alternative solutions. Moreover, it is process that is not confined to the corporation itself, but can be expanded to include interfaces with other partners in the chain or broader network as well ([3] Nonaka 1994, p. 27).

6. SOCIETAL AND ACADEMIC RELEVANCE

6.1 Integration of theory and practice

In conclusion, I have tried to sketch an approach that provides in the demand for a new, integrated approach to knowledge creation ([3] Nonaka 1994), knowledge transfer ([12] Nicolopoulou, 2011), and organization development and change management ([13] Balogun & Jenkins 2003, [14] Preuss & Córdoba-Pachon, 2009) that contributes to the diffusion and implementation of new technologies.

Action research can be regarded as an approach in which the element view and process view ([14] Preuss & Córdoba-Pachon, 2009) or the component and architectural aspects of knowledge and change management ([13] Balogun & Jenkins 2003) are integrated within an overarching framework. Co-creative processes in the form of action research projects structurally build upon relations of trust that need to be developed between academic researchers and non-academic co-researchers if knowledge creation is ever to take off ([20] Coenen, 1996, [29] Smaling, 1998, [18] Boog et al, 2003, [3] Nonaka, 1994, p. 24, [10] Ebersberger et al, 2012). And the design of the methodology of action research is such, that these relations can be expanded to customer – business chain – network partner relations, which is a necessary precondition of the new business context ([23] Chesbrough 2007, p. 14, [134] Preuss & Córdoba-Pachon, 2009, [2] Mason & Simmons 2011, p. 167, [3] Nonaka 1994, p. 27).

In order to be able to cover the broad range of aspects related to innovative technological solutions, action research projects are set up as a corporate effort of experts from the academia, from the corporation itself and from the connected network. Besides the design of the research, the development and evaluation of the proposed action strategies form an integral part of the knowledge creation. To be able to realize this, action research makes use of the broad range of knowledge, expertise, experiences, skills and competencies that are needed to not only find new technological ánd social knowledge but also implement it. This way, it provides the transdisciplinary framework of action that is required for the fusion of mode one and two knowledge and the integration of different skills that form the foundation for innovative change processes (cf. [8] Gibbons et. al, 1994, p. 4).

To enhance a good integration of new technologies into business practices, action research can be set up as a model in which the development of individual trajectories is connected to trajectories at the corporate level. The matching takes place in cyclic, co-evolutionary learning processes that simultaneously forms a knowledge creation process. The learning and development trajectories are not confined to the level of causal explanations (the interpretation of facts), but will also take into consideration normative and power aspects that are inherently related to the issue of implementation. Thus it transcends the technological, cognitive-instrumental rationality to which mode one knowledge production remains bounded. The model covers the whole range of rationality that plays a role in the processes that drive the economy, the 'new' one probably even more than the traditional economy. As such, action research forms a means to help bridge the current gap between what traditional science is providing for and the actual challenges that business corporations are facing. Within this context, reciprocal Human Resource Management can function as a flywheel for innovation (cf. [36] Coenen-Hanegraaf et al., 2001). But if and only if the trajectories of the individual corporate actors are structurally related to that of the company as a whole; otherwise the innovative practices will remain ad hoc practices that will come to a halt soon after the projects have finished. Viewing technological solutions as processes, instead of as combinations of goods, services and knowledge elements, we must realize that effective innovative solutions require intricate coordination across all functions ([25] Storbacka 2011).

This dynamic approach takes root in concrete organizations and business practices aimed at solving problems in specific situations. Nevertheless, it can have context-transcending meaning and explanatory power, for the research process takes place on different levels, within the company and within the chain and broader network. Thus, local, national and even global perspectives can be taken into consideration to come to overarching solutions.

6.2 Towards a new knowledge paradigm

For all these reasons, action research can be considered to have the potential to meet the requirements that R&D functions need to fulfill in the 'new economy'. Stressing the dynamic dimension of knowledge creation as a result of the interaction between scientific researchers, corporate actors and other stakeholders (partners in the chain, customers et cetera), and as part of a dynamic and multi-layered learning process, action research clearly breaks away from the traditional approach to knowledge production. With that, it perfectly fits the description of the new knowledge paradigm proposed by Gibbons et al. ([8] 1994, pp. 87-88): "The older view of a linear process connecting discoveries and inventions to the production process is displaced by a more interactive one. While in the linear view, the university was distanced from the commercial process, and could still preserve its academic values, in technology interchange it must become involved at both individual and institutional levels and adapt to new rules." Answering to this call for involvement, action research set up as a 'corporate university' that helps to develop and support sustainable business projects can be viewed as a response to the needs of both science and society.

In our own 'corporate university', the approach takes the form of a learning process towards interdisciplinary research and education that has crystallized in the programme of Future Planet Studies. In a joint learning process, researchers from a diversity of expert fields within and outside the University of Amsterdam have combined their knowledge and experience to design an integrated bachelor programme that focuses on (the nexus of) energy, climate change, food, water, and the quality of life. This could only be attained because we managed to build a relation of trust in this broad network, and refrain from falling into the gap that all too often still divides the beta domain (the natural sciences) from the gamma and alpha domains (the social sciences and the humanities).

Within Future Planet Studies, theoretical and technological knowledge, research competencies and social and communicative skills are combined with vision development, including ethical and normative orientation on the complex challenges that our societies are faced with. This way, we try to do justice to the broad spectrum that a truly rational perspective entails, and which is definitely needed to come up with adequate solutions for the urgent challenges. In an effort to bring the outside in, we invite innovative companies to introduce students to new ways of thinking and new ways of doing business (e.g. sustainable entrepreneurship and green banking). We also enhance students to put their knowledge and skills into practice by encouraging them to engage in local sustainability projects (e.g. via internships). Thus, the set-up of the studies is such, that the integration between mode one and mode two is enhanced, and co-creative knowledge generation at the intersection of science and society encouraged.

We consider it crucial to discover the core motivations and technological, cognitive, social and communicative potential of our students, and find out how this can best be matched to suitable study trajectories within our flexible programme. The ultimate goal being to get them in a position where they can make their optimal contribution to the global challenges we are faced with. By attracting a sufficiently large group of students and becoming a viable, officially recognized programme that is taken up in the existing education system, Future Planet Studies has proved that the new knowledge approach manages to realize its goals with regard to value capture. As for the value creation: even during their studies, we see many of the students finding a part-time job in new businesses initiatives related to, for instance, renewable energy and climate change mitigation. Therefore, besides the value that is already realized with the development of our new programme, we trust that further results will become visible when the first cohorts of students leave the university, and find their place and prove their added value in the new, innovative business corporations.

Both managers and academics are only beginning to learn how to organize transdisciplinary processes in which they jointly analyse the problems, create knowledge, develop technological solutions and implement the proposed strategies. With all those who think we are at most only half-way the learning process ([39] Habermas 1981b & [40] 1981c, [41] Giddens 1981 & [42]

1990, [43] Bourdieu, 1992, [44] Beck 1992, [45] Beck et al. 1994, [3] Nonaka, 1994, [4] Toulmin, 2001), I would hope that by expanding on these experiences in the form of corporate action research projects, it may become possible to monitor the unintended and unwanted side-effects of the technological, cognitive-instrumental rationality that dominated the last centuries. Hopefully we will be able to repair some of the damage it has done, and offer really rational, thus innovative, sustainable solutions and strategies that help to leave earth a better place for those who come after us.

7. REFERENCES

1. VA. Brown, JA. Harris, JY. Russell (eds). *Tackling Wicked ProblemsThrough the Transdisciplinary Imagination,* Australian National University, 2010.

2. C. Mason, J. Simmons. 'Forward looking or looking unaffordable? Utilising academic perspectives on corporate social responsibility to assess the factors influencing its adoption by business', *Business Ethics: A European Review*, 2011, 20(2): 159-176.

3. I. Nonaka. 'A dynamic theory of organizational knowledge creation', *Organization Science*, 1994 5(1): 14-37.

4. S. Toulmin. *Return to reason*, Harvard: Harvard University Press, 2001.

5. J. Habermas. *Erkenntnis und Interesse*, Frankfurt am Main: Suhrkamp Verlag, 1968.

6. J. Habermas. 'Gegen einen positivistisch halbierten Rationalismus', In: Th. Adorno, AR. Dahrendorf, J. Habermas, H. Pilot, KR. Popper, *Der Positivusmusstreit in der deutschen Soziologie*, Neuwied/Berlin: Luchterhand Verlag, 1969, pp. 235-266. (Also in English: Rationalism divided in two. In A. Giddens (ed). *Positivism and Sociology*, Londen: Heinemann, 1974, pp. 195-223.)

7. J. Habermas 1981a. *Theorie des kommunikativen Handelns I & II*, Frankfurt am Main: Suhrkamp Verlag.

8. M. Gibbons, C. Limoges, H. Nowotny, S. Schwartzmann, P. Scott, M. Trow. *The New Production of Knowledge. The Dynamics of Science and Research in Contemporary Society*, London: SAGE, 1994.

9. H. Nowotny, P. Scott, M. Gibbons. *Re-Thinking Science. Knowledge and the Public in an Age of Uncertainty*, Cambridge: Polity Press, 2001.

10. B. Ebersbergen, SJ. Herstad, A. Altmann. *Knowledge spillovers to industry: Opportunities for universities of applied science*, Zeitschrift für Hochschulentwicklung, 2012, 7(3): 73-79.

11. OECD. *Benchmarking Industry-Science Relationships*, Organisation for Economic Co-operation and Development, Paris, 2002.

12. K. Nicolopoulou. 'Towards a theoretical framework for knowledge transfer in the field of CSR and sustainability', *Equality, Diversity and Inclusion: An International Journal*, 2011, 30(6): 524 – 538. DOI: 10.1108/02610151111157738

13. J. Balogun, M. Jenkins. 'Re-conceiving change management: a knowledge-based perspective', *European Management Journal*, 2003, 21(2): 247-57.

14. L. Preuss, JR. Córdoba-Pachon. 'A knowledge management perspective of corporate social responsibility', *Corporate Governance*, 2009, 9(4): 517 – 527.

15. A. Repko. *Interdisciplinary Research. Process and Theory*, Los Angeles/London etc: SAGE, 2008.

16. D. Greenwood, M. Levin. *Introduction to Action Research, Social Research for Social Change*, Thousand Oakes: SAGE, 1998.

17. P. Reason, H. Bradburry (Eds). *Handbook of Action Research: Participative Inquiry and Practice*, London: SAGE, 2001.

18. BWM. Boog, L.Keune, C. Tromp. 'Action Research and Emancipation', *Joumal of Community and Social Applied Psychology*, 2003, 13 (6): 419-426.

19. H. Moser. *Aktionsforschung als kritische Theorie der Sozialen Wissenschaft*, München: Kösel Verlag, 1975.

20. H. Coenen. 'The Model of Exemplarian Action Research'. In *Theory and Practice of Action Research*, B. Boog, H. Coenen, L. Keune, R. Lammerts (eds), Tilburg: Tilburg University Press, 1996, pp. 13-21.

21. H. Chesbrough, RS. Rosenbloom. 'The role of the business model in capturing value from innovation: Evidence from Xerox Corporation's technology spin-off companies', *Industrial and Corporate Change,* 2002, 11(3): 529–555.

22. H. Chesbrough, W. Vanhaverbeke, J. West (Eds). *Open Innovation: Researching a New Paradigm*, Oxford: Oxford University Press, 2006.

23. H. Chesbrough. 'Business model innovation: It's not just about technology anymore'. *Strategy and Leadership,* 2007, 35(6), 12–17.

24. D. Kindström. 'Towards a service-based business model – Key aspects for future competitive advantage', *European Management Journal*, 2010, Vol.28(6): 479-490. DOI: 10.1016/j.emj.2010.07.002

25. K. Storbacka. 'A solution business model: Capabilities and management practices for integrated solutions', *Industrial Marketing Management*, 2011, Vol. 40(5): 699-711. DOI: 10.1016/j.indmarman.2011.05.003

26. G. Svensson.' A corporate model of sustainable business practices: An ethical perspective', *Journal of World Business*, 2010, 45(4): 336-345.

27. G. Svensson , B. Wagner. 'A process directed towards sustainable business operations and a model for improving the GWP-footprint (CO<DN>2e</DN>) on Earth', *Management of Environmental Quality: An International Journal*, 2011, Vol .22(4): 451-462.

28. M. Bilgin. 'The PEARL Model of Sustainable Development', *Social Indicators Research*, 2012, Vol.107(1): 19-35. DOI: 10.1007/s11205-011-9824-7

29. A. Smaling. 'Dialogical Partnership - The Relationship Between The Researcher and The Researched in Action Research'. In: B. Boog, H. Coenen, L. Keune, R. Lammerts (eds), *The Complexity of Relationships in Action Research*, Tilburg: University Press, 1998,pp. 1-16.

30. S. Sharma, J. Sharma, A. Devi. 'Corporate Social Responsibility: The Key Role of Human Resource Management', *Business Intelligence Journal*, 2009, 2(1): 205-213.

31. BJ. Inyang, HO. Awa, RO. Enuoh. 'CSR-HRM Nexus: Defining the Role Engagement of the Human Resources Professionals', *International Journal of Business and Social Science,* 2011, 2(5): 118-126.

32. NM. Høgevold. 'A corporate effort towards a sustainable business model; A case study from the Norwegian furniture industry', *European Business Review*, 2011, Vol. 23(4): 392-400. DOI: 10.1108/09555341111145771

33. G. Salaman, J. Storey, J. Billsberry. *Strategic Human Resource Management: Defining the Field,* Oxford: Blackwell, 2005.

34. BE. Becker, MA. Huselid. 'Strategic Human Resources Management: Where Do We Go From Here?' *Journal of Management*, 2006, 32(6): 898-925. DOI: 10.1177/0149206306293668

35. TN. Garavan. 'A Strategic Perspective on Human Resources Management', *Advances in Developing Human Resources*, 2007, 9(11): 11-30, DOI: 10.1177/1523422306294492.

36. M. Coenen-Hanegraaf, F. Coenen, B. Valkenburg. 'Reciprocal HRM as exemplarian principle of development'. In *Action Research: Empowerment and Reflection*, B. Boog, H. Coenen, L. Keune (Eds), Tilburg: Dutch University Press, 2001, pp. 58-79.

37. A. Giddens. *Central Problems in Social Theory - Action, Structure and Contra- diction in Social Analysis*, London and Basingstoke: MacMillan Press Ltd, 1979.

38. A. Giddens. *The Constitution of Society*, Cambridge: Polity Press/Oxford: Basil Blackwell, 1984.

39. J. Habermas. 'Die Moderne - Ein unvollendetes Projekt'. In: idem. *Kleine Politische Schriften I-IV*, Frankfurt am Main: Suhrkamp Verlag, 1981b, pp. 444-464.

40. J. Habermas. 'Modernity versus Postmodernity', *New German Critique*, 1981c, 8(22): 3-14.

41. A. Giddens. 'Modernism and Post-Modernism', *New German Critique*, 1981, 8(22): 15-19.

42. A. Giddens. *The Consequences of Modernity*, Stanford: Stanford University Press, 1990.

43. P. Bourdieu. *An invitation to reflexive sociology*, Cambridge: Polity Press, 1992.

44. U. Beck. *Risk Society: Towards a New Modernity*, London: Sage, 1992.

45. U. Beck, A. Giddens, S. Lash. *Reflexive Modernization*, Cambridge: Polity Press, 1994.

[i] Ebersberger et al. (2012, p. 75) note that 13% of innovative companies highly appreciate the universities as informal sources of inspiration for their innovation process.
[ii] This applies to the corporate actors, but to their partners and potential customers as well.

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