

Permaculture approach: linking ecological sustainability to businesses strategies

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approach

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Abstract

Purpose – The purpose of this paper is to discuss the concept of ecological sustainability is attracting attention of global business community as neoclassical approach continues to fail in delivery. There is now an emerging need to explore new approaches towards balancing ecological and economic returns. The paper extends the philosophy of Permaculture into business domain and explores its compatibility to be integrated with strategic management perspectives.

Design/methodology/approach – The study primarily conducts a review of Permaculture and Strategic Management domains and uncovers the compatibility between the two domains while arguing that the integration of Permaculture philosophy in business strategy would achieve sustainability.

Findings – Permaculture philosophy is compatible with Strategic Management process for developing business strategies. It can incorporate ecological and social aspects for developing integrated strategy process for sustainability in organizations.

Research limitations/implications – Focusing on financial and non-financial value addition contributed by organizations towards community would lead to long-term sustainability of the organization and the community which supports it.

Originality/value – The study extends the emerging philosophy of Permaculture into the established domain of Strategic Management. Arguing that simultaneous equilibrium of capacities, resources and demands of stakeholders must be maintained for sustained economic success in business world.

Keywords Sustainable development, Business strategy, Strategic management, Permaculture, Resilient communities

Paper type Research paper

1. Introduction

The concept of sustainability is one of the vital concerns of global business community. Efforts around the world are focused on improving management approaches for attaining sustainability in businesses. In 1987 the Brundtland Commission gave a brief definition of sustainability as the “ability to make development sustainable – to ensure that it meets the needs of the present without compromising the ability of future generations to meet their own needs” (Kates *et al.*, 2005). Sustainability has various wide dimensions values dealing with managerial, financial, legal, societal, scientific, ecological, spiritual and cultural features correlated with business organizations. In business world the policy makers give more importance to the financial assets



protection to satisfy economic and societal requirements of human beings and ignore the ecological requirements in businesses (Buchdahl and Raper, 1998). Choosing single-value objective, i.e. economical parameter over the others may lead to debate and confusion and result in the failure of business strategies. Thus the search for balance between social, economic and ecological perspectives of sustainability in businesses is a challenge for business managers and scientific community. Permaculture approach when integrated with Strategic Management philosophy can radically modify management system, and restructure the basis for greater benefits for economic, ecological, social and political aspects. The paper extends the philosophy of Permaculture into business domain and explores its compatibility to be integrated with Strategic Management perspectives.

Strategic Management comprises of the analysis, decisions and actions that an organization undertakes in order to create and sustain competitive advantages. It is the comprehensive collection of ongoing activities and processes that organizations use to systematically coordinate and align resources and actions with mission, vision and strategy throughout an organization (Rohm *et al.*, 2013). The purpose of Strategic Management is to deal with problems and crisis that may be alleged through the level of its importance, its difference from required situations and harmonization in consumption and exploitation (Belak, 1993). Therefore, Strategic Management activities transform the static plan into a system that provides strategic performance feedback to decision making and enables the plan to evolve and grow as requirements and other circumstances change. Thus, Strategic Management is comprehensive, future-oriented dealing with the lifelong endurance of systems and connects business and long-term capital management.

In the business system economic scarcities are reflected by market prices. Social and ecological scarcities are, however, only partially reflected in financial dealings, although they are equally important for business system (Figge *et al.*, 2002). To the degree that social and ecological issues are reflected in economic dealings and with the increasing significance of social and ecological issues several organizations have executed specific social or ecological management approaches during the last decade (Akhtar *et al.*, 2014). These approaches have, though, hardly ever been incorporated with the conventional management system of an organization. As a result, issues of ecological and social management are often not allied to the financial achievements of the business unit and the economic contribution of ecological and social perspectives therefore remains ambiguous. In attaining business sustainability, the vital function of corporations has been stressed and converse on the strategic level (Hart, 1995, 1997; Schaltegger and Synnestvedt, 2002; Bennett and James, 1999). If organizations want to achieve sustainability in businesses, they have to synchronize social, economic and ecological performance (Figge *et al.*, 2002).

2. Permaculture as an approach for sustainability management

Mollison and Holmgren (1978) defined Permaculture as a philosophy of functioning with, rather than against nature; of prolonged and solicitous observation rather than extended and inconsiderate labour; of looking at flora and fauna in all their functions, rather than care for any vicinity as a single-product system. There are three guiding principles on which the Permaculture paradigm is based. First, each component of the system carries out various functions. Second, each preferred function of the system is maintained by multiple components. Third, everything in the system is interrelated to

everything else. The foundation of Permaculture is based on three ethics and is the basis of sustainability:

- (1) care of the earth;
- (2) care of people; and
- (3) fair share and economy

Permaculture is a developing phenomenon. New system design Permaculture that refers to permanent agriculture and culture, has developed to deal with more than its original farming practices to sustainable (permanent) culture (Holmgren, 2003). It is perceived as philosophy of life style ethic as much as design instrument. The strategy doctrines are broad enough to apply to several cultural structures such as legal, economic and commerce (Hopkins, 2008). Permaculture recommends strategies to explore for other skills and knowledge that work with natural system (nature and cultural). The viability of this approach in the current world is promising because though it needs a paradigm change, the fundamentals of our modern world view are not discarded. Basically Permaculture implement a sustainability standpoint signifying that human being must be ready to give back what is taken from environment to conserve it for upcoming generations.

The key aim of Permaculture is to provide quality of life by designing the natural eco-systems through the principles of ethics; effort to decrease workload through planning and organizing social organizations which allocate people to work collectively. This allow people to function without an over exploitation of resources, with no returning to a structure of lofty workloads. Sustainability has to be evaluating as a holistic approach in the light of the ethical system that connect ethical standards to both living and non-living organisms. Such an ethically accountable approach will not overlook potential consequences for other organisms in a sustainability management process. Therefore, Permacultural organizations initially look more exertive than traditional organizational systems, but after some times exertion diminishes when the initial structures are in place and the system becomes self-organize and self-regulatory (Mollison and Holmgren, 1978). Permaculture alleges that alternative ways of living and thinking only become feasible if they are operating in our daily life. The innovative characteristic of these ideas is that “small is attractive and the compilations of several small activities go near altering the entire”. These ideas would not be imposed from above by decision makers or legislators, but performed by individuals effective to progress their own vicinity. Self-awareness and self-sufficiency is encouraged throughout the realization of pattern in nature, not through following an organized management plan of how to survive to be sustainable in our own lives, and in our society, that required dedication and more endeavour – an innovative manner of living, resulting as of a vision of individuality in perspective within a system of interactions and of individual development in service to humanity, as our own resilience (Bellacasadia, 2010).

3. Methodology

The basic philosophical approach used in this research is post-positivist, while it can also be classified as exploratory and interpretive in nature. The concept is grounded in theory as qualitative method has been adopted for exploratory purposes. Qualitative methods are generally inductive and theory tends to be generated rather than tested and are used to dig up information. These types of researches are developed in social sciences to

enable researchers to gather an in-depth understanding of various perspectives, and explain social phenomena (Marshall and Rossman, 2006; Brokington and Sullivan, 2003). The study primarily conducts a review of Permaculture and Strategic Management domains and uncovers the compatibility between the approaches.

The conventional business management systems are generally based on one sided approach (economic approach) which reduces the capacity of management and is not capable to adapt the philosophy of sustainability. The objective to integrate Permaculture and Strategic Management is to gain social, economic and ecological sustainability in the business management. The research is engaged in effort to stipulate an understanding of sustainability. In this context to gain an in-depth understanding of the issues and challenges faced by the business community, the study critically analyzes the Permaculture and Strategic Management approaches and incorporates the two philosophies. The Spiral Integration process of Permaculture and Strategic Management philosophies have seven steps in common, which we have named as: analysis, development, implementation, revisions, time dimension, resources utilization and balanced interaction. The Spiral Integration strengthens the research to efficiently handle the issues and challenges in designing sustainability management flow.

4. Parameters for Spiral Integration of Permaculture and Strategic Management

There are several varied techniques and frameworks for Strategic Management but the majority follow a similar model and have common features. Starting from evaluation or analysis, where an awareness of the existing inner and outer environment is developed followed by strategy development and implementation where the policies are transform into more operational planning and finally the feedback loop of constant modification and evaluation of performance (Rohm *et al.*, 2013). Thus, Strategic Management deals with the endurance of systems and connects business for long-term capital management, efficient use of available resources and balanced interaction between consumption and exploitation. Similarly, Permaculture is a comprehensive, self-motivated approach and it can be exercised in various domains and can also be exercised at diverse levels as an integrating technique (Holmgren, 2002). The Methodological implication flow of Permaculture is divided into seven steps analyze the site or observe and interact, create the site design, implement the site design, redesign process, sustainability, equity/redistribute the surplus. Therefore philosophy of Permaculture deals not only about pollution control or carbon sequestration, eco-centred and sustained plentiful living but it is a dynamic universal network that have classify and ethical orientation, it focus on the restricted and small-scale variation, confine potential for large-scale management and promote sharing, escort by a lack of concern with market recognized certification, are the principle features that distinguish Permaculture from other management systems (Holmgren, 2002, 2007). The conscious design of Permaculture can retain the dynamic ecosystem, which has the flexibility, sustainability and diversity of natural ecosystem. Therefore, it is an ethnically based design system which can easily be integrated with Strategic Management of business organizations. The Parameters of the Spiral Integration of Permaculture and Strategic Management showing process synchronizing is shown in Figure 1.

4.1 Process 1 – analysis

Analysis is the first step in integrating process of Permaculture and Strategic Management where we incorporate evaluation (Strategic Management) and analyze the

site or observe and interact (Permaculture). In Strategic Management evaluation is a first step and it depends on gathered information and data. The gathered information and data will shape the progression of the next stages. The process of Strategic Management is a philosophical approach than just a set of rules to follow. It can be achieved by first think strategically then apply these thought as a process. The analysis and evaluation process focus on understanding the sustainability requirements of the business entity; it observe every external or internal elements that effect the aims and objectives of the organization, identify both the strong and weak points of the organization as well as any intimidations and prospects that can occur along the path. Strategy evaluation and control actions include performance measurements, consistent review of internal and external issues and making corrective actions when necessary. Any successful evaluation of the strategy begins with defining the parameters to be measured. These parameters mirror the goals set in Stage-1, i.e. Determine the progress by measuring the actual results vs the plan. Monitoring internal and external issues will enable the organization to react to any substantial change in business environment. If the strategy is not achieving the required goals, take corrective actions. If those actions are not successful, then repeat the Strategic Management process. Because internal and external issues are constantly evolving, any data gained in this stage should be retained to help with any future strategies.

Similarly, in Permaculture, “site” is a selected area where to incorporate Permaculture strategies. The “site” or physical space may be a business organization, home, urban or rural area, woodland, etc. The procedure of integrating Permaculture’s ethics and principles is referred to as “site design”. Each site is unique and has dissimilar social, economic and ecological conditions. Observe and analysis of site conditions includes the specific ecological characteristics of the site, social factors, evaluate the economic factors, analyze according to zones, examine consumption and production of the site’s elements. The key to develop an effective, balance and self-sustain system without a lot of human intercession requires extended periods of observation and analysis of the specific site conditions. Permaculture accentuates the interrelation among all social, economic and ecological elements in a system. It is not something that is created in isolation, but through constant and shared collaboration with the site elements. For effective functioning of a management system components must be placed in the right place (Mollison and Slay, 1991).



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Figure 1.
The Spiral Integration of Permaculture and Strategic Management

4.2 Process 2 – development

The second stage of spiral synchronizes strategy development and site design. The second step in strategy management is to review the information gathered from completing the analysis. It set priorities, focus energy and resources, strengthen operations, ensure that employees and other stakeholders are working towards achieving common goals, establish agreement around intended outcomes/results and assess and adjust the organization's direction in response to a changing environment. It is a disciplined effort that produces fundamental decisions and actions that shape and guide the organization how to achieve the targets, with a focus on the future. Effective strategic planning articulates not only where an organization is going and the actions needed to make progress, but also how it will know if it is successful. It determines what resources the business currently has that can helpful in achieving the defined goals and objectives. It also identifies the areas in which the business needs to seek external resources.

To develop a socially acceptable, economically viable and environmentally sound Strategic Management plan; social, economic and ecological indicators will be selected after observe and analysis phase. The findings form the analysis of zones, social, economic and ecological conditions will be utilized to develop a site design by representing the proper placement of diverse elements. A good design depends on a harmonious relationship between social (care for people), ecological (care for earth), economic (fair share) aspects and considerate interaction offer the strategy motivation, repertoire and arrangements. To employ Permaculture for the sustainability in management plans, first of all its three "ethics of care" (care for earth, care for people and fair share) which are the philosophical core, provides the motivation, strength and are the basis for a management plan. Apparently these ethics could emerge to be obvious but their collective occurrence in a management plan has a radical capacity for self-maintained, sustainable culture, natural eco-systems and social revolution. As Permaculture is embedded in indigenous values and environments, so the methodology is suitably functional in all areas of the globe.

4.3 Process 3 – implementation

Implementation is the third step of Spiral Integration and successful strategy implementation is critical to the success of the business venture. This is the action stage of the Strategic Management process. If the overall strategy does not work with the business' current structure, a new structure should be installed at the beginning of this stage. Everyone within the organization must be made clear of their responsibilities and duties, and how they fit in with the overall goal. Additionally, any resources or funding for the venture must be secured at this point. Once the funding is in place and the employees are ready, execute the plan. Strategy was tightly linked to the changing goals that come along the way in the organization. Similarly, strategy was linked to an outstanding degree of consumer satisfaction. If strategic decisions have been implemented supremely well it can recover quickly from occasional stumble in a swiftly changing business environment.

The site designs will be implemented in according to the Permaculture zones system. A zoned design system of Permaculture separates elements in a human environment according to frequency of utilization and needs. Frequently manipulated vicinity nearby to the centre of a design in zone 0 and vicinity required minimum attention further rest away lies in zone 5 (Holmgren, 2003; Morrow, 2006). The implementation of site design can come about over a period of time. Start with small solutions and slowly extend the operation as time. Changes generally take place gradually over time. The Permaculture

site design would not map everything, but would basically try to direct transform in situation of insatiability and to encourage sustainability.

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4.4 Process 4 – revisions

Fourth level of Spiral Integration incorporates revisions and modifications for attaining sustainability management. A Strategic Management plan offer practical, assessment-based strategic initiatives for an understanding of stakeholder requirements, prospect for external and internal environment. To endorse long-term development, it also integrates continuous learning, evaluation and monitoring of management issues such as performance, infrastructure, data reporting and feedback. The established Strategic Management plan can be reviewed in the light of provided feedback. A resource and “check list” is endow with managers where they can modify and redevelop strategies to improve their organization’s systems.

In Permaculture, the established site design can be re-viewed in the light of the provided information to deliver new strategies to improve the operation. The Permaculture-based Strategic Management process encourage sustainability and are well-managed system to monitor or asses sustainability of natural resources if these policies are reviewed or monitored continuously it will improve the competence and effectiveness of the designed tool. A cycle of analysis, design, implementation, evaluation and re-planning is utilized to achieve sustainability management.

4.5 Process 5 – time dimension

In the context of a vision of the sustainability prospect long term and sustainability are incorporated at fifth step, i.e. time dimension, Strategic Management establishes the long-term directions for the organizations. It aligns culture and strategy, incorporates existing institutional systems and involves a set of choices about what to do, why to do it and how to do it. In strategic planning a precise set of goals, objectives, ongoing refinement, evaluation of strategic issues, policies developed in response to consumer, internal and external business requirements are focus on results, therefore clear and measureable concepts, steps, and techniques that promote realistic, long-term benefits for better decision making are required.

The Permaculture advocate the need for a holistic, nature-centred approach which is based on balanced interaction of nature and human and equally incorporate the social, economic and ecological aspects of sustainability in businesses. The Permaculture promotes the new ways of thinking and patterns of behaviour through ethics of care and equity and strategic thinking via consolidating the scientific aspects. These ethics can act as influential dynamic forces to provide the motivation and limitations required to attain the targets and long-term success of business management.

The new concept of Permaculture’s sustainability that integrates social, economic and ecological aspects has considerably extended the field of sustainable management by giving the answers to the subsequent questions – How should resource management be understood? And what should be sustained (society, economy or ecosystem)? How should the management procedure be planned to attain the new concept of sustainability? What kind of approaches makes it feasible to get sustainability? How should resources sustainability be assessed? In context of the where, when, what and how, issues underneath sustainability management, Permaculture prospective accustom counter to these issues through personal development, articulated in ethics of care. In Permaculture, these ethics of care describe consideration to personal accountability in the perspective of liaison. This, in turn, revisits to the thought of holistic interrelatedness which basically

becomes conversant with Permaculture equally as an idea a strategy for sustainability management and has theoretical lashes to society. Ethics of care can be perceived as a prospect to open space for individual development and improvement through the development of behaviour and thinking. Permaculture supports society to plan their own milieu and create more self-sufficient human settlements (Morrow, 2006).

4.6 Process 6 – resources utilization

The process of resources utilization combines efficient use of available resources and redistribute the surplus. An effective strategic plan lists organization's critical issues and then examined that how the organization's strengths and skills can be utilize to deal with the critical issues. First available tangible and intangible resources (human, financial and intellectual capital) are evaluated, second strengths and skills of the institution are assessed and then seeking the ways to synthesize the two investigating and selecting the best strategies for the organization to address the challenges or critical issues.

Similarly, Permaculture recognizes that human being had to share all renewable and non-renewable natural resources with all other living organisms and protect the resources for future generations. There is no tip in designing a sustainable society as others suffer without clean air, water, food, protection, significant employment and that awful inequity is acknowledged by Fair Shares – a call to limit population and consumption, particularly of natural assets. Permaculture basically seeks to design fairer, impartial systems that take into relation the limits of the natural assets and improve quality of life for all living organism to continue and multiply (Holmgren, 2007).

4.7 Process 7 – balanced interaction

Balanced interaction is last step of the spiral. Current transitioning economy needs such strategies that stab equilibrium and refining the efficiency between their existing resources and skills (strategy of exploitation), whereas organizing for the upcoming situation through a strategy of exploration and experimentation. Strategic exploitation is intended to retort present environmental settings by modifying current technologies. Strategic Management aimed at reducing the use of resources through maximizing return as Permaculture follows the concept of minimum effort, more effect.

Permaculture is a coherent and explicit set of design and is an ecological development system that mingles aboriginal awareness with suitable technology and supports the concept of "the Spiral of Intervention" (Bell, 1992). This concept deal with the inspiration that nature should sprint its itinerary and minimum human intrusion is best course of action. It is a dynamic philosophy that expands the idea of "minimum effort, more effect" besides western-industrial culture is wedged with the approach that the more physical work and control over milieu that the worker commences; the more proficient and productive that work will be (Bell, 1992). Basically Permaculture is about producing valuable interaction between individual rudiments. It recommends strategies that work with natural system and inquires about environmental doctrine to identify valuable interactions while diminish harmful relations. Permaculture as: a philosophy of functioning with, rather than against nature; of prolonged and solicitous observation rather than extended and inconsiderate labour; of looking at flora and fauna in all their functions, rather than care for any vicinity as a single-product system. Everything in the system is interrelated to everything else. It is imperative, as the weakness and productivity of a system depend not on the amount of components it restrains, but relatively how many interactions take place within the system. Permaculture identifies that all living organisms have particular niches of space, time

and actions. Within these niches exists a subtle equilibrium and relation between living organisms. We should toil within the specific niches. After a comprehensive argument of Permaculture as sustainability management approach the paper takes a closer look at the similarities between Permaculture and Strategic Management for formulating a sustainable strategy for an organization. A brief summary of the Spiral Integration of Permaculture and Strategic Management is shown in Table I.

5. Linking sustainability to business strategy

From the functional point of view, management is deemed as a system, pertaining managers in guerdoning systems towards required situations (Belak, 1993). So, the procedures embrace an anthology of tasks, stages and levels, which in turn consist of a number of actions. According to the sequential perspective and complexity of system, management theories differentiate three categories of management, i.e. strategic, operational and tactical. Tactical management organizes different levels for operational behaviour, whereas operational management deals with tangible problems of the production progression itself (Belak, 1993).

The description given by WCED (1987) for sustainability enhances the idea by integrating many other parameters of sustainability and placed it at universal centre stage; and now this idea has amplified many folds over the last three decades. On the contrary, it has specifically separated the global vista of sustainability into the contentious anthropocentric and eco-centric debate. The possible conflicts and difference between the two approaches are now observed as an important feature of the sustainability (Hoffman and Sandelands, 2005; Brouckerhoff, 2008; Sarvestani and Shahvali, 2008; Horsthemke, 2009; Ingwe *et al.*, 2010). To gain sustainability the tangible assets of a business are not restricted to tangible resources only. New social and ecological parameters are of prime importance for the comprehensive presentation of business organization's resources that include – quality of life, lifespan, literacy rate, administration quality, use of information technology, expenditure of development and research, etc. (Bontis *et al.*, 2000;

Strategic Management	Permaculture
<i>Process 1 – analysis</i> Evaluation	Analyze the site or observe and interact
<i>Process 2 – development</i> Strategy development	Create the site design
<i>Process 3 – implementation</i> Implementation of strategy	Implement the site design
<i>Process 4 – revisions</i> Modifications	Redesign process
<i>Process 5 – time dimension</i> Long term	Sustainability
<i>Process 6 – resources utilization</i> Efficient use of available resources	Equity/redistribute the surplus
<i>Process 7 – balanced interaction</i> Harmonization in consumption and exploitation	Balance in nature and human interaction

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Table I.
Summary of the
Spiral Integration
of Permaculture
and Strategic
Management

Malhotra, 2003; Bontis, 2004). Consequently a holistic picture of organization's capital could be the sum of organization's intangible and tangible resources (Lodhi and Ahmad, 2008).

In conventional sustainability oratory, to some level, severance of social institute equity and fairness from economy, which completely advocate economy, is neither an individual construct nor a type of communal institute; equity and welfare are exclusively public concerns and are not linked to economy. This severance of society from economy is sign of the inequality between sustainability strategies which accentuate the need for social impartiality and egalitarianism in development, however not succeed to relate these in some realistic sense to structural reasons of growing injustice, such as discriminatory global trade accords, unfettered fiscal markets and asymmetrical access to capital (McMichael, 2009). Although society is conceptual to some extent, the Permacultural ethic cares for people bring society to individual level, highlighting self-organization accountability and responsibility. The significance of care for people direct logically into interrelated notions of society and vicinity and games. Individual and society are equally important, and consequently contain the equal basic status – the individual and societies build each other and need each other (Etzioni, 1967).

Social and ecological aspects and scarcities are not yet completely incorporated in the market exchange practices through assigned market costs and often signify externalities. Usually, it is considered that basically these aspects originate from non-financial structures as social constructs. Conversely, according to the Hill's model of socio-economic rationality, organizations do not function entirely in the economic sphere. They relatively interact with the socio-cultural or the legal sphere too (Hill, 1985). As organizations do not exist in vacuum but in a specific socio-cultural environment therefore social and ecological perspectives as social constructs can emerge in all spheres and can become strategically significant for organizations through other system than the market exchange practice. Environmental and social aspects can be included under the business strategy like all other potential strategically relevant aspects (Deegen, 2001). The integration of strategically relevant ecological and social aspects from outside the market system can impact a firm's performance in all three (social, economic and ecological) perspectives. This means that they can be relevant both directly and indirectly. The indicators of strategically relevant social and ecological perspective can also be identified and reproduced through respective measures. These measures are then linked towards the financial perspective by means of hierarchical cause-and-effect chains. Consequently, strategy-linked management is guaranteed for the strategically relevant social and ecological aspects, too.

Due to the globalization which resulted in extremely competitive, business environment has made it compulsory for "policy makers" economists to find out new and novel ways that induct sustainability factors in business management. Permaculture as an approach present an eco-centric, place based, perspective of human relation with each other and with environment, through ethics of care and equity, and have potential to promote authentic sustainability business management system (James and Joshua, 2008; McEwan and Goodman, 2010). System thinking of Permaculture is more systemic than systematic. Permaculture inquires about ethical doctrines to identify and make best use of valuable interaction while diminish or eradicate harmful relations. Permaculture confers equal worth to the links between social, economic and ecological essentials of a system as to the essentials themselves. Such an approach to plan can be useful for sustainability management and can be applied in any field. Therefore, Permacultural organizations can originally be more effort than traditional organizational systems, but this reduce following the early organizations are in place and the system is able to self-sufficient and self-regulate.

The integration of Permaculture and Strategic Management offers the possibility to incorporate the identification and the management of environmental and social perspectives into mainstream business activities. An integrated sustainability management approach has to be explicitly taken into account the simultaneous progress of all three aspects of sustainability of the organization. It can fulfil the essential requirement of the sustainability concept for a sustainable development of the firm's performance in economic, ecological and social terms. Another significant suitability of the Permaculture is that sustainable business that is economically sound is not endangered by financial crisis because it is not only carried out as long as the organization is successful. Generally, if companies find themselves in economic crisis, first of all they cut down those overheads that are supposed as not contributing to the economic success. Economically sound business management that is, however, will also be practiced in times of crisis and not only as long as firms are successful. Therefore organizations that strengthen have their social and environmental management often acclimatized to themselves towards competitors. As a result, sustainability that also contributes to economic goals aid to disseminate the idea of sustainability management in business, as it serves as a suitable paradigm for other businesses. Basically Permaculture rejects the industrial development model of the Global North, which is at the centre of its ethics, and seeks to generate a new equitable management system that takes into relation the confines of the assets and the requirements of all living organisms. Permaculture promotes conniving human system on social, human and market capital. It is a potential, dynamic, living philosophy which is continuing to evolve and ideal for long-term Strategic Management.

Conceptually, sustainability management in business with the Permaculture seeks to deal with the issues of economic contributions to sustainability in an integrative way. It posits that for corporations to contribute to sustainability, it is enviable that organization's performance improves in all three (economic, ecological and social) aspects of sustainability simultaneously (Figge *et al.*, 2001). Although conflicts between the three performance perspectives of sustainability may possibly arise, from a pragmatic business perspective, therefore, sustainability management in business should first identify and recognize prospects for synchronized progress in all three aspects in order to achieve strong economic contributions to sustainability. In an integrated sustainability management approach, all pertinent components for attaining a stable viable benefit should be incorporated. Consequently, the firm's activities critical for sustainable business achievements are built-in and causes are allied to effects. The objectives and measures in all three perspectives (economic, environmental and social) are deduced from the integrated Permaculture and Strategic Management as directed top-down, both in its contents and its development as a sustainability management system. Therefore, to be able to clarify and translate the strategy top management must agree on the strategy. The goal is to create common and comprehensible strategic bases through integration of Permaculture and Strategic Management. Because of this the verbally formulated strategy should be translated and linked in terms of objectives and measures of sustainability. The hierarchical system of the sustainability management in business guarantees that all business activities of organization are associated to the successful execution of the sustainable business strategy (Figge *et al.*, 2002; Schaltegger and Burritt, 2000).

The utmost challenge facing mainstream in sustainability management is that the current economic reproduction cannot be continued, as economic growth has already threatened environmental/social services on which richness and survival of business

organizations depends. Rising economies, therefore, will not achieve something unless original trade model are planned that not only increase a better consideration of but deal with social, ecological and economic objectives (Lambacher, 2007; WBCSD, 2010). Solving old and new challenges, Permaculture makes better and greater use of resources, increases the resilience and diversity of production systems, and provides for broader sharing of economic wealth. In business management Permaculture is uniquely positioned in contributing to a sustainable future that will address the needs for both sustainable economic growth and social fairness.

6. Conclusion

The Permaculture as system design is a sustainability management approach that supports the successful implementation of business strategies. As organizations does not exist in vacuum but in a specific socio-cultural environment. In the business management the equity and ethical issues are being raised whether the strategies for sustainability management should be clued-up by a concern for nature for human purposes or for the innate milieu for itself (Horsthemke, 2009). Conventional sustainability management approaches adopt instrumental values systems and provide a strong ground to exploit resources to satisfy human material needs and ignores the needs of other species. Therefore, it is inclined that without developing the ethical dimension and codes that attach moral values to both living and non-living organisms progress towards sustainability management, will not be possible. For instance, business organizations have complex socio-economic systems, which in turn are implanted in complex eco-systems. Business organizations that claims to be part of the global economy needs to view the socio-economic system as a sub-set of nature (Buchdahl and Raper, 1998; Gasparatos *et al.*, 2009). In contrast, a human-centred socio-economic management disrespects the interaction across scales (Folke *et al.*, 2005). Sustainability management, therefore, needs to integrate the ethical dimension and system in strategies and decision making. The Permaculture approach incorporates environmental and social aspects into the main management system of an organization and takes into account non-monetary, non-financial business activities strategic success factors that significantly impact the economic success of a business. Therefore by integrating the three pillars social, economic and ecological/environmental factors of sustainability into a single and overarching Strategic Management, Permaculture approach will overcome the shortcomings of conventional approaches in business management systems by its ethical codes. The approach proposed in this paper can enhance both effective and efficient environmental and social management and sustained economic success in business world. Overall the Permaculture provides a strong base for an integrated sustainability management.

References

- Akhtar, F., Lodhi, A.S. and ShahKhan, S. (2014), "Permaculture: an ethical and valued based system for sustainable management", *Journal of Business Strategies*, Vol. 8 No. 2, pp. 113-126.
- Belak, J. (1993), *Podjetnistvo, politikapodjetja in management*, Zalozba Obzorja, Maribor, p. 507.
- Bell, G. (1992), *The Permaculture Way: Practical Steps to Create a Self-Sustaining World*, Thorsons, London.
- Bellacasa, M.P.D. (2010), "Ethical doings in nature cultures", *Ethics, Place and Environment*, Vol. 13 No. 2, pp. 151-169.

- Bennett M. and James P. (1999), *Sustainable Measures: Evaluation and Reporting of Environmental and Social Performance*, Greenleaf, Sheffield.
- Bontis, N. (2004), "National intellectual capital index: a united nations initiative for the Arab region", *Journal of Intellectual Capital*, Vol. 5 No. 1, pp. 13-39.
- Bontis, N., Chua, W. and Richardson, S. (2000), "Intellectual capital and the nature of business in Malaysia", *Journal of Intellectual Capital*, Vol. 1 No. 1, pp. 85-100.
- Brockington, D. and Sullivan, S. (2003), "Qualitative research", in Scheyvens, R. and Storey, D. (Eds), *Fieldwork and Development Studies: A Rough Guide*, Sage Publications, London, pp. 57-74.
- Brouckerhoff, J.J. (2008), "Giving nature constitutional protection: a less anthropocentric interpretation of environmental rights", *Texas Law Review*, Vol. 86 No. 3, pp. 615-646.
- Buchdahl, J.M. and Raper, D. (1998), "Environmental ethics and sustainable development", *Sustainable Development*, Vol. 6 No. 2, pp. 92-98.
- Deegen, T. (2001), *Ansatzpunkte zur integration von umweltaspekten in die balanced Scorecard*, Centre for Sustainability Management, Luneburg.
- Etzionis, A. (1967), "Mixed scanning: a third approach to decision-making", *Public Administration Review*, Vol. 27 No. 5, pp. 385-392.
- Figge, F., Hahn, T., Schaltegger, S. and Wagner, M. (2001), "The sustainability balanced scorecard – A tool for value oriented sustainability management in strategy focused organizations", *Conference Proceeding of the 2001 Eco-Management and Auditing Conference, ERP Environment, Shipley*, pp. 83-90.
- Figge, F., Hahn, T., Schaltegger, S. and Wagner, M. (2002), "The sustainability balanced scorecard – linking sustainability management to business strategy", *Business Strategy and the Environment*, Vol. 11 No. 5, pp. 269-284.
- Folke, C., Hahn, T. Olsson, P. and Norberg, J. (2005), "Adaptive governance of social-ecological systems", *Annual Review of Environment and Resources*, Vol. 30, pp. 441-473, doi:10.1146/annurev.energy.30.050504.144511.
- Gasparatos, A., El-Haram, M. and Horner, M. (2009), "The argument against a reductionist approach for measuring sustainable development performance and the need for methodological pluralism", *Accounting Forum*, Vol. 33 No. 3, pp. 245-256.
- Hart, S. (1995), "A natural resource based view of the firm", *Academy of Management Review*, Vol. 20 No. 4, pp. 986-1014
- Hart, S. (1997), "Beyond greening: strategies for a sustainable world", *Hazard Business Review*, Vol. 75 No. 1, pp. 66-76.
- Hill, W. (1985), "Betriebswirtschaftslehre als managementlehre", in Wunderer, R. (Ed.), *Betriebswirtschaftslehre als Management- und Fuhrungslehre*, Poeschel, Stuttgart, pp. 111-146 as cited in Figge et al. (2002).
- Hoffman, A.J. and Sandelands, L.E. (2005), "Getting right with nature: anthropocentrism, eco centrism, and theo centrism", *Organization and Environment*, Vol. 15 No. 2, pp. 141-162.
- Holmgren, D. (2002), *Permaculture: Principles and Pathways Beyond Sustainability*, Holmgren Design Services, Hepburn.
- Holmgren, D. (2003), *Permaculture: Principles and Pathways Beyond Sustainability*, Holmgren Design Services, Hepburn.
- Holmgren, D. (2007), "Holmgren design system", available at: www.holmgren.com.au (accessed 25 September 2014)
- Hopkins, R. (2008), *The Transition Handbook Creating Local Sustainable Community, Beyond Oil Dependency*, Green Books, Totness.

- Horsthemke, K. (2009), "Learning for the natural environment: the case against anthropocentrism", *US-China Education Review*, Vol. 6 No. 10, pp. 22-30.
- Ingwe, R., Ebegbulem, J.C. and Ikeji, C. (2010), "Ecocentric and anthropocentric policies and crises in climate/environment, finance and economy: implications of the emerging green policy of the Obama administration for Africa's sustainable development", *African Journal of Political Science and International Relations*, Vol. 4 No. 1, pp. 1-12.
- James, R.V. and Joshua, L. (2008), "environmental anthropology engaging permaculture: moving theory and practice toward sustainability culture & agriculture the", *American Anthropological Association*, Vol. 30 Nos 1 and 2, pp. 47-58.
- Kates, R.W., Parris, T.M. and Leiserowitz, A.A. (2005), "What is Sustainable Development Goals, Indicators, Values, and Practice", *Environment: Science and Policy for Sustainable Development*, Vol. 47 No. 3, pp. 8-21.
- Lambacher, J. (2007), "Beyond anthropocentrism and eco centrism? Social Justice critiques of conservation and implications for biodiversity protection", paper presented at the Annual Meeting of the Western Political Science Association, Las Vegas, NV.
- Lodhi, S. and Ahmad, M. (2008), *A Framework for Developing National Poverty Eradication Policy in the New Economy. Poverty Reduction: Policies and Global Integration*, Islamic Countries Society of Statistical Sciences, Lahore.
- McEwan, C. and Goodman, M. (2010), "Place geography and the ethics of care: introductory remarks on the geographies of ethics, responsibility and care", *Ethics, Place and Environment*, Vol. 13 No. 2, pp. 103-112.
- McMichael, P. (2009), "A food regime genealogy", *The Journal of Peasant and Studies*, Vol. 6 No. 1, pp. 139-169.
- Malhotra, Y. (2003). "Measuring national knowledge assets: conceptual framework and analytical review", *Ad Hoc Expert Group Meeting on Knowledge Systems for Development, United Nations Department of Economic and Social Affairs, New York, NY, 4-5 September*.
- Marshall, C. and Rossman, G.B. (2006), *Designing Qualitative Research*, 4th ed., Sage, Thousand Oaks, CA.
- Mollison, B. and Holmgren, D. (1978), *Permaculture One: A Perennial Agriculture For Human Settlements*, Tagari Publications, Sisters Creek, TAS.
- Mollison, B. and Slay, M.R. (1991), *Introduction to Permaculture*, Tagari Publishers, Tyalgum.
- Morrow, R. (2006), *Earth users Guide to Permaculture*, 2nd ed., Simon and Shuster Ltd, Roseville, NSW.
- Rohm, H., Wilsey D., Perry, G.S. and Montgomery, D. (2013), *The Institute Way: Simplify Strategic Planning & Management with the Balanced Scorecard*, 1st ed., The Institute Press, Cary, NC.
- Sarvestani, A.A. and Shahvali, M. (2008), "Environmental ethics: towards an Islamic perspective", *Journal of Agricultural and Environmental Science*, Vol. 3 No. 4, pp. 609-617.
- Schaltegger, S. and Synnstedt, T. (2002), "The link between green and economic success. Environmental management as the crucial trigger between environmental and economic performance", *Journal of Environmental Management*, Vol. 65 No. 4, pp. 339-346.
- Schaltegger, S. and Burritt, R. (2000), *Contemporary Environmental Accounting: Issues, Concepts and Practice*, Greenleaf, Sheffield.
- WBCSD (2010), *World Business Council for Sustainable Development. Business and Development: Challenges and Opportunities in a Rapidly Changing World*, WBCSD, Geneva.
- WCED (1987), *Our Common Future Oxford*, Oxford University Press.

Further reading

- Beckmann, S.C., Kilbourne, W.E., Van Dam, Y. and Pardo, M. (1997), "Anthropocentrism, value systems and environmental attitudes: a multi-national comparison", Working Paper No. 10, Department of Marketing, Copenhagen Business School, Copenhagen.
- Brockington, D. and Sullivan, S. (2000), "Qualitative Methods", in Scheyrens, R. and Storey, D. (Eds), *Development Fieldwork: A Practical Guide*, Sage Publications, London, pp. 57-74.
- Bruyninckx, H. (2004), "The convention to combat desertification and the role of innovative policy-making discourses: the case of Burkina Faso", *Global Environmental Politics*, Vol. 4 No. 3, pp. 107-127.
- King, C.A. (2008), "Community resilience and contemporary agri-ecological systems: reconnecting people and food, and people with people", *Systems Research and Behavioural Science Syst. Res.*, Vol. 25 No. 1, pp. 111-124.
- Marshall, C. and Rossman, G. (2011), *Designing Qualitative Research*, 5th ed., Sage Publications Inc., Thousand Oaks, CA.
- Mogen, E. (2006), "Permaculture: origins, philosophy and goals", *Hortscience*, Vol. 41 No. 4, pp. 933-933, From Wikibooks, open books for an open world.
- Smith, T., Willetts, J. and Mitchell, C. (2007), "Implications of the synergise between system theory and permaculture for learning about and acting towards sustainability", paper presented at the ANZSEE Conference, (Conference of the Australia and New Zealand Society for Ecological Economics (ANZSEE), *Reinventing Sustainability: A Climate for Change*, July 3-6.

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