Learning Parks: New Approach to Designing New Millennium's Parks

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Abstract:

Science-technology parks were first made in industrial countries for these purposes: help the growth of SMEs, help the local economy and support the emerging organizations, science transition from universities and science centers to the industry and commercialize it. Gradually this kind of science parks were made in developing countries, the difference is that in developing countries, parks are not independent and are supported by their government. Since the policies of governments of these countries are changing very fast, their policy of supporting is not predictable and so it seems necessary for parks to be independent from the government's supports.

In this turbulent world that is based on non-linear changes and opportunity exploitation, learning organizations are successful in defeating the external threads and environmental changes. Learning or knowledge-creating organizations are those, that rather than the staff the organization itself, increases it's ability constantly to meet it's final goals. In fact a learning organization is skillful in science creation, acquisition and transition, and uses it's new acquired knowledge in changing and promoting. One of the most important characteristics of these organizations is double-loop learning. It means that they can learn constantly from their environment and update their norms simultaneously, so they will be coordinated with environment and can promote themselves. They sense the need of learning and want to learn. they are aware. Whenever they find a problem, they do not hesitate to solve it, so they won't be accustomed to the problems. They have innovative and learning staff. They use their experience and science simultaneously and look for the problems origin from the inside. By these characteristics, learning organizations could be coordinated with environment and in spite of fast changes of industry and technology, new inventions and discoveries, they could stay permanently.

This article reviews the principles of the learning organizations and science parks in developing countries and suggests a model for science parks to be changed into a learning park, so they could sense and track the environmental changes and put these changes into their norms and improve their function and continue to live in this turbulent world.

Keywords: Learning Parks, Learning Organization, Science and Technology Parks

Learning Organizations

1. Organizational learning

Though academic interest in how organizations learn dates back to at least the 1950s (see Argyris, 1992), it was only in the 1990s, through the work of writers such as Senge (1991) and Pedler, Burgoyne, and Boydell (1991), that the topic has attracted significant attention in recent years. In part, this is because there are two overlapping and competing concepts: organizational learning and the learning organization (West, 1994). As Tsang (1997) notes, the tendency to use these two concepts interchangeably complicates our understanding of how learning takes place in organizations. Tsang also points out that, despite the volume of publications on the subject, there is a scarcity of rigorous empirical research in the area. He argues that one of the main reasons for this is that many of those writing on organizational learning are practitioners seeking to prescribe rather than describe or analyze. He believes that, as well as promoting the concept, they are trying to promote themselves and the organizations for which they work. A similar point is also made by Easterby-Smith (1997, p.1107): 'much of the existing research into learning organizations is based on case studies of organizations

that are said to be successful, and these sometimes seem to rely more on public relations than on any grounded studies'. Examples of successful learning organizations are Motorola, Shell, Xerox, Honda, Sony, Kodak, land Rover Group UK and the case studies reflect only a picture of the 'best practices' in a limited period of time. For example, one of the best examples of a learning organizations in the literature is Rover Group, UK which has not been performing well financially and the 'learning organization image' of the company was based on the compliments of the ex-workers or stakeholders of the company (Bayraktaro&glu, 2001).

Despite this confusion, promoting learning within organizations is increasingly seen as vital to sustaining and creating a competitive advantage (Easterby-Smith, 1997). However, if organizations are to successfully adopt the learning approach to competitiveness, they need to understand both the theory and practice of organizational learning. In turn, taking Tsang's (1997) point into account, the evidence on practice must be based on rigorous empirical research. This paper seeks to address these issues by discussing how hotels (as examples of hospitality organizations) can transform themselves into organized learning environments to improve their competitiveness. The focus of this paper will be the Turkish tourism sector's strengths and weaknesses in the adventure of becoming a learning organization. To explore the specific circumstances of organizational learning in a service sector, the different characteristics of the service sector will be summarized

to enable us to move into the Turkish Tourism scene. This paper aims to discover a direction for the Turkish Tourism Sector, which is perceived as a model for the sustainable development of the Turkish Economy as a whole. The inclusion of learning organizations on sustainable tourism development arose from recognition that the tourism sector is very labor-intensive and in today's business world the most valuable assets are 'information and knowledge' and 'the human factor'. Thus, the coming together of these concepts creates an undeniable logic. As a result, this study is an attempt to bring two human-centered settings together: 'learning organizations' and hotels' as examples of service sector organizations. This paper will conclude by identifying fundamental issues when building organizational learning

(especially in the hospitality industry) and it is hoped that this study will contribute towards an advanced understanding of how to enhance competitiveness and the success level of the tourism sector.

2. Organizational learning and the learning organization

Before moving onto further theoretical issues, it would be useful to differentiate between two frequently-mixed concepts. The term 'organizational learning' is often used interchangeably with the term 'learning organization'. The difference, as Tsang (1997, pp. 74–5) points out is that: 'Organizational learning is a concept used to describe certain types of activity that take place in an organization while the learning organization refers to a particular type of organization in and of itself'. In effect, the difference appears to be between 'becoming' and 'being'. Organizational learning describes attempts by organizations to become learning organizations by promoting learning in a conscious, systematic and synergistic fashion which involves every single person in the organization. In other words, 'a learning organization is the highest state of organizational learning, in which an organization has achieved the ability to transform itself continuously through the development and involvement of all its members (Argyris and Sch.on, 1978; Burgoyne, Pedler, & Boydell,

1995; West, 1994). The term 'learning organization' was much promoted in the late 1980s and early 1990s; however, because very few appear to have achieved this status, 'organizational learning' now seems to have been adopted as a more appropriate concept.

Even if consensus has emerged on what to call it, there is still much disagreement as to what organizational learning means. Stata (1989) offers a simple definition, stating that learning means 'getting everyone in the organization to accept and embrace change as an ongoing process'. However, Stata (1989, p. 64) then goes on to argue that organizational learning occurs 'through shared insights, knowledge and mental models and builds on past knowledge and experience, that is, on memory'. So, organizational learning is about 'organizational memory' as well as its members' cognitive and mental models. Garvin (1993) views organizational learning as a complex and multi-dimensional process that unfolds over time, and which links the acquisition of knowledge acquisition to improved performance;

while Fiol and Lyles (1985, p. 803), who are among the most influential and the earliest commentators on organizational learning, state that 'organizational learning means the process of improving actions through better knowledge and understandings'. Argyris (1977), a
Pioneer of the conceptualization of organizational learning, makes a similar point by suggesting that 'learning is a process of detecting and correcting error'. Lastly, Huber (1991, p. 89), taking a systematic approach, argues that 'an entity learns, if, through its processing of information, the range of its potential behaviors is changed'. The main difference between writers in the area appears to be those taking prescriptive approaches, who consider that behavioral change is required for learning, and those focusing more on descriptive or analytical studies, who suggest that new ways of thinking are sufficient (West, 1994).
Synthesizing both the prescriptive and descriptive approaches, Garvin (1993) suggests that, while a variety of phenomena contribute to the organizational learning process, unless there are adjustments to the way in which work is organized and performed, significant change and learning is unlikely to occur. Following on his analysis, he (1993, p. 80) offers the following definition of a learning organization: A learning organization is an organization skilled at creating, acquiring and transferring knowledge, and at modifying its behavior to reflect new knowledge and insights. New knowledge creation can occur as a result of insight or inspiration from within the organization; additionally it can also be provoked from external influences by expanding and/or relaxing organizational boundaries. Whatever their source, such new ideas form the foundation for organizational improvement and learning. Nevertheless, they alone cannot create a learning organization unless there are accompanying changes to the manner in which the organization and its members behave.
In other words, Garvin (1993) indicates that, while many organizations can develop skills in acquiring and creating knowledge, few are successful in applying that knowledge to their own activities and behavior. This draws attention to the importance of understanding the processes by which an organization can develop and change itself, rather than being forced to change by outside forces. The implication of this is that if an organization recognizes that it is an open system operating in a dynamic environment, then, through the application of organizational learning, it can exercise a degree of control over its own destiny (Morgan, 1997; Stacey, 1996). The emerging trend in the literature, therefore, is to argue that those responsible for plotting an organization's strategy should be less concerned with how to react to a given set of environmental constraints, and more concerned with influencing and shaping the environment in which their organization operates through the development of organizational learning (Burnes, 2000). On a practical level, many writers (Senge, 1991; Garvin, 1993; Coopey, 1996) argue that learning organizations are skilled at a range of activities that enable them to develop and integrate their learning. These include their capacity for:

1. Systematic problem solving, which underlies notions of quality and is focused on transformations in management and organizational activity,
2. Experimentation: actively seeking and testing new knowledge and the ability to learn from mistakes,
3. Drawing upon memory and past experience,
4. Learning from and with others,
5. Communicating effectively within and beyond the organization,
6. Systematic thinking and developing shared ideas/ models of the current organizational position.

In connection with this final point, as Hendry, Arthur, and Jones (1995) note, the importance of groups and teams in the organizational learning process seems, surprisingly, to have been neglected. This neglect is even more surprising given the growing popularity of team based structures within contemporary organizations. They argue that, in any discussion of the learning process, it is important to highlight the role of groups and teams. In order to facilitate this, Hendry et al. (1995), construct a three-stage model which describes the transition from individual learning to group learning and the accompanying organizational support necessary for this transition to take place. Hendry et al. argue that the transition from individual learning through group learning to organizational learning is dependent upon an individuals' readiness to learn and a person's enthusiasm for joining in shared learning efforts. They also maintain that group or team learning is translated into organizational

learning through the development of organizational 'routines'; the translation of 'learning by doing' to 'remembering by doing' (Hendry et al., 1995, p. 184). Their assertions are supported by Huber's (1991) analysis of organizational identity and memory, and Zemke and Zemke's (1995) assertion that adults are pragmatic in their approach to learning and do so only when they are convinced that it is in their own best interest. Underpinning the work of Hendry et al. and most others who have examined the topic is the view that organizational learning is not a fixed state or a finite goal, but a continuing process of adaptation and evolution, whereby groups within an organization are encouraged to develop skills, knowledge and a common sense of purpose in order to pursue shared goals and targets.

Parks and Their Environment

Funding the Establishment Of A Science And Technology Park

The Science and Technology Park movement emerged partly in response to the failure of the conventional property market to provide suitable accommodation for high growth knowledge-based businesses. This market's lack of response is understandable, initially due to Parks being a new concept that was both unfamiliar and commercially unproven.

The STP concept involves a combination of physical accommodation, tenant policies, on-site services, a layer of institutional missions and operational priorities, and many other factors that would not be considered in the design or operation of a traditional industrial property development. It also involves the infusion of public good objectives into the mission of a Park which may reduce the operational latitude of management. These factors may be seen to represent risk and an unsupportable overhead on the balance sheet when compared with a more commercially viable (or predictable) traditional industrial Park development.

As the STP concept has become better defined, it is apparent that in relatively few cases would any single entity – property developers, universities and research institutes, or government – assume a stand-alone role in the successful financing, development or operation of a STP. As a result, various types of collaborations and partnerships among stakeholders are usually formed to progress Park developments.

Public agencies and institutions are often the main financial drivers for STP projects, particularly in the early stages of the developments. Public funds have been used at least in part to establish 70 percent of the North American STPs. These public organizations are more likely to be accustomed to long term investments and are generally not driven by the need to achieve immediate returns. Their continuing involvement anchors the long-term vision for the Park as few STPs are capable of providing commercial returns in their early years. However, it is highly desirable if the private sector takes an active role in the establishment phase, perhaps in a consortium arrangement with public sector partners. As the development proceeds and the perceptions of risk diminish, private sector interests tend to become increasingly involved.

One of the essential goals for a successful Science and Technology Park is to be self-sustaining in its operations after an appropriate start-up period. The financial plan should be based on the assumption that the Park will be a long-term multi-stage development and that when the Park is fully built out and occupied, expenditures and revenues will be balanced, and any surplus distributed to the investment partners or reinvested in Park facilities.

To help meet this goal, a Park's start-up package should include sufficient funds to support operations through the early ramp-up period, and property assets against which the governing body can raise further development funds. Typically, a start-up package might support:

- A professional management team;
- The development of infrastructure to the point where it can accommodate the first wave of core assets and resident companies;
- The marketing activities needed to recruit these assets and companies to the Park; and,
- The development activities required to create the Park's initial offering of unique services.

The extent to which a newly established STP is exposed to commercial-rate debt service is a significant issue. Initial debt should be limited or structured in a way that gives a young STP enough financial breathing room to build a tenancy and site amenity package that is consistent with its vision and door policies.

The Role of Governance

The founding stakeholders have the responsibility to establish a sound governance and management structure in which they can confidently vest control of the Park's destiny. They also need to ensure that:

- The achievement of the Park's mission remains at its core. As a consequence, this may often preclude direct management by another entity, for example a university council or local government body or a private sector developer;
- There is the capacity to secure sufficient funds, land and core assets to make the achievement of the Park's mission a reality;
- The Park is set up at arms-length from its stakeholders; this may often be as a not-for-profit, self-sustaining, public good entity, with appropriate accountability and reporting mechanisms in place;
- The Park's initial debt needs to be limited or structured in a way that allows the Park time to develop, implement and adhere to an effective mission and operational plan.
- A large, initial debt load is a recipe for disaster for a young STP trying to build a tenancy and site amenity package that is consistent with its vision and door policies.
- Under these high debt circumstances, missions and other good intentions can be quickly jettisoned under pressure of interest-driven cash flow requirements; and,
- A master plan and strategy for the Park's development are adopted, including a timetable for balancing the level of public and private sector engagement with the project.

The critical interests of the Science and Technology Park stakeholders need to be reflected in the composition of the Park's governing body. When public investment forms a major part of a Park's initial endowment, the governance requirements are probably best achieved by establishing a not-for-profit membership (e.g. a charitable trust) rather than a shareholder-based company. If private sector interests are leading the development of the Park, one of the most convenient legal formats for the Park's governing body is likely to be a company limited by guarantee. The core business of such a company is the development and operational management of the Park.

The governing body's primary responsibilities usually include:

- Accountability to the various stakeholders that brought the Park into existence;
- Maintaining the vision of the Park, and to re-align the mission with that vision as circumstances change;
- Developing and communicating policies that govern the evolution of the Park and the activities of management; and,
- Acting as custodian of the public and other resources vested in the Park.

The organizational performance of the Park is generally the responsibility of the management entity reporting to the Board. In such cases, the management entity should have executive authority for the operation of the Park.

When the STP is owned by a single research organization, it is most likely the host will have voting control of the governing board. If research organizations are key stakeholders, rather than taking an owner/operator position, they should still be be well-represented on the governing body. It can often be difficult to achieve a balance in the integral relationship between a research organization and a Science and Technology Park. When they are in an ownership or controlling position, research institutions tend to play three different and often simultaneous roles, as:

- Generators of new knowledge which can rapidly enter the public domain;
- Educators of the labor force of scientists, engineers, technicians, philosophers, managers, etc.; and,

- Entrepreneurs in their own right, supporting the spin-off of their research into the Park's network of companies.

The traditional culture of research organizations may also not fit with the governance and management requirements of a Science and Technology Park. The core role of research organizations in promoting innovation depends on them remaining autonomous, with their own research agendas, and their own criteria for scientific excellence. An "arms-length though intimate" relationship may be preferred. This means that a given research organization neither drives nor is driven by the Science and Technology Park with which they are linked.

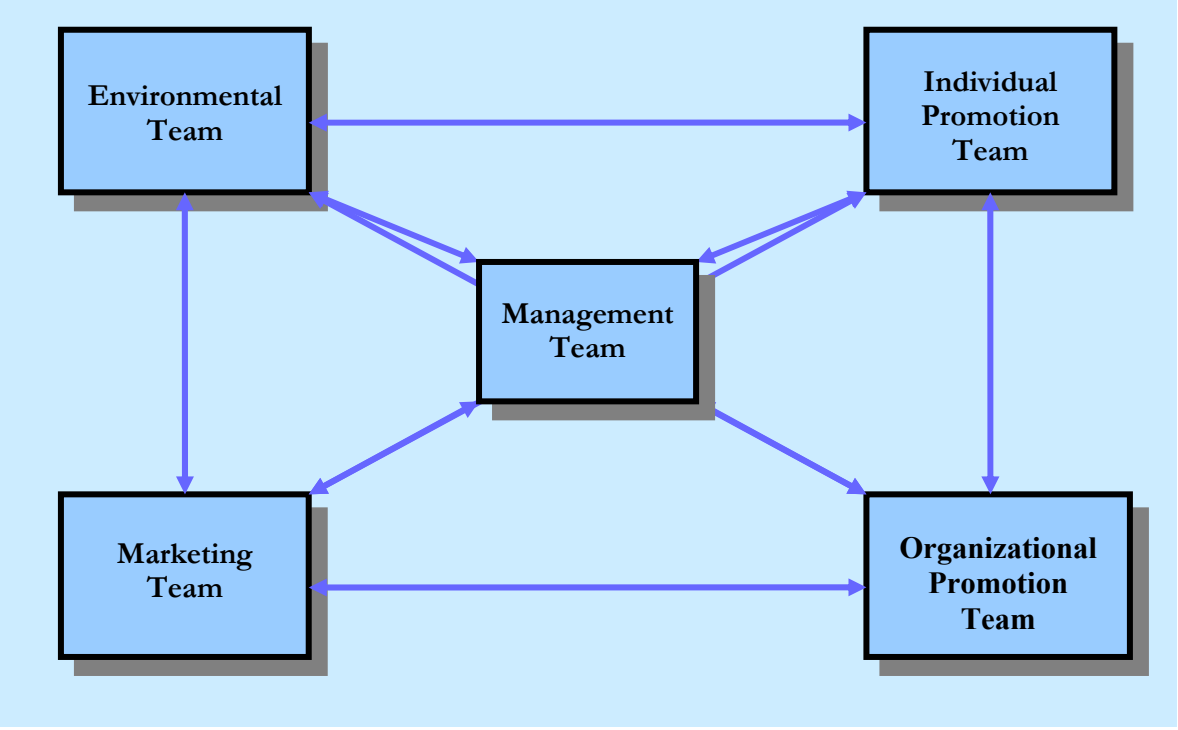
A critical issue for governance will be how the controlling entity or consortia choose to operate the Park. Do they operate it themselves or contract for its entire or partial operation? If the core management functions are contracted out, there is the risk of separation from the institutional vision for the facility. On the other hand, direct control requires that the controlling organization(s) hire and develop considerable in-house expertise to run an effective and competitive Park operation, and this is likely to be an unfamiliar role for a tertiary institute, research centre, or other public entity.

Model

Considering the content mentioned above, these days parks need new organizing forms to adapt these environmental changes and neutralize them not only to survive and but also to grow. In this purpose, we develop a model, joining park's characteristics and environment, and new type of organizations (learning organization and team based organization): *"learning parks"*

This model includes five separate teams that each has their own specialized task. These teams are connected together to work as an integrated organization and help it perform in its best way.

Members of team are selected from different departments of parks. This selection is for some reasons; by this selection, collaboration between departments increases and coordination will be enhanced; each team can employ a variety of professions and skills to work effectively. And also, by this selection, outcomes of teams can be delivered directly to department and by involvement of them in decision making process, their commitment to results enhance and whole park work coordinated and effectively. This structure helps sharing information among park and makes it easier and faster to adapt with environmental changes.



Following text describe elements of this model more detailed.

Organizational promotion

Each organization to perform better and in an efficient way has to identify its internal processes and to promote them in a correct way.

One of the key factors of staying alive in the turbulent environment is to identify the competitive advantages of the organization and strengthen them. To identify this factor, the organization has to thoroughly inspect its strengths and compare it to the environmental CSFs to find the competitive advantages. After finding this, the organization has to promote these competitive advantages in order to sustain them and make it more difficult for competitors to reach.

One of the common ways to design the internal processes is to benchmark them from the best practices of the successful organization in the industry. Finding these organizations and analyze their processes, they can design a customized model and employ them for their own organization.

Each Science and Technology Park is unique. It's success depends on a complicated mix of local factors relating to its location, stakeholders, history, business model, and ownership structure.

Successful Science and Technology Parks have strong and ongoing local support, commitment, and leadership. They are founded on a clear vision and realistic expectations, and are developed as long-term projects in a multi-phase manner with adequate resources. Each STP development should be guided by a master plan.

Recognizing that not even the most successful STPs perform to "best practice" in all key performance areas, key success factors that are commonly recognized in successful Science and Technology Parks include:

- Clarity of vision and purpose amongst all stakeholders, with a consistent emphasis over time, translates as a clear 'door policy';
- The central involvement of at least one major research organization that:
  - ✓ Understands that STPs are a unique engine for high technology economic growth;
  - ✓ Has strong knowledge transfer capabilities; and,
  - ✓ Takes a collaborative approach that accommodates the needs of industry.
- A high value placed on the research institution connection in branding the Park and shaping its culture;
- Strong interaction between the host academic/research campus and Park. This is often distance sensitive and tends to work best when the sites are nearly adjacent;
- An project champion (individual/group) with a clear and practical understanding of the Park's purpose and the benefits it will bring;
- A STP Manager with strong leadership skills and a background in R&D rather than property management;
- The effective economic and social integration of the STP with the community and region;
- Government playing a key leadership, facilitation and enabling role;
- Sufficient capitalisation to ride out any adverse effects of the business and property cycles without having to compromise the 'door policy' or other mission elements.
- Financial self-sufficiency over time;
- A multi-phased, development period of 15 or more years;
- Phase one is critical to long term success, related issues include:
  - ✓ Park development is usually of modest proportions so that it will fill quickly and provide an early "success";
  - ✓ The starting point typically involves a multi-let building of modest size with incubator-type accommodations;
  - ✓ Early-stage project underwriting almost invariably involves the public sector, parent research organization, or both; and,
  - ✓ Existing companies (rather than newly-formed spin-outs) are the most important source of tenants.

By knowing these factors, parks can benchmark them to employ for their own organization.
To accomplish these tasks, parks develop organizational promotion team. This team continually checks these best practices working models and benchmarks them to their organization. as well, this team keeps in touch with organizing consultants to be informed about superior and well-run organizing models of the …….
Every park has its own capabilities and limitations. To be successful in acting their role in the economy as parks and economy developers, they have to enhance their capabilities and take away their weaknesses. Organization (in this case, parks) may have different capabilities and strengths, but the ones can help it act more effective are the ones that are more compatible with key success factors in that industry and more important from these ones, the ones that are difficult to acquire by other competitors in the environment. Parks must discover their competitive advantages and empower them by investing on.
Finding these competitive advantages, and benchmark industry's best practices, this team can forecast industry's future requests and create capacities in their parks to satisfy these needs.

Environmental Team

This team consists of two sub teams that each does its own task. These two teams can be named as below

- Resource Team
- Rival Monitor Team

1. Resource Team

One of the most important concerns, organizations facing nowadays, is resources and gaining them. Finding proper resources in their fields is critical to survive for each organization today. Therefore parks, need this team to find environmental resources and facilities that can help park live and grow to its considered mission and goal.
In developing countries usually the government is responsible for main and major resources of science and technology parks. Considering rivals, accessing limited resources (like budgets) is critical point in these kinds of countries.
Also, there are other kinds of resources and facilities exist in task and general environment of these countries. Something like university laboratory facilities, research budgets in some governmental organizations, R&D resources of companies or corporations. These resources need to be identified and negotiate to gain for parks.
This team, inspect and monitor the environment to find and identify these kinds of resources and go for them. After finding allocated resources from environment, these team can negotiate favorable organization and gain access to these resources. These parks can inform their tenants about these facilities and tenants can make use of these facilities to reach and gain their own organizational goals and missions. In this way parks can help and provide their tenants with proper facilities and parks mission can completely accomplished.

2. Rival Monitoring Team

in working environment of developing countries that government play key role in some organization's survival, gaining resources are critical as mentioned above. In this environment, competing between rivals is so severe. One organization living in this environment, need to identify its rivals and monitor them to develop suitable strategy to maintain in this competing environment.
This team is developed to perform this task and monitor rivals to react appropriately to their actions. This is so critical to organization's survival because resources are restricted and each organization has to be better to gain more and more resources and weak performance can lead to fewer resources.
This team also track environmental changes and deliver them to organization to help it adapt environment better and faster. This mechanism assists organization to adjust essential changes to its structure and processes. And can hold on to the edge of development and be the leading organization.

Marketing Team

Every organization has its own business model and in industries, individual organizations often have similar business models. In parks case, their major revenue is from charges that their tenants pay them and the governmental support to their organization.
Also, as a park, their main job is to attract and help SMEs to grow up .this job require a strong marketing team to promote park's reputation and attract more SMEs to them.
To reduce this dependency on governmental support and to somehow, modify their business model, parks can do some projects for other organizations (like for industry or for university).
To be notified about these projects, this team has a sub team, entitled as "Project Attracts Team". This team does some marketing projects and jobs among industry to attract some projects to park to earn profit. After attracting project to parks, this team decides how to accomplish these projects. Projects can be done by park's team, itself, or by outsourcing them. This outsource can initially be made to tenants of the park to help them grow faster, in next step it can be delegated to a qualified external team.
Subsequent to outsourcing these projects, park should follow and monitor their carrying out to be assured them done well. And after finishing, this team must audit and control these projects.
The other sub team is "Marketing Team" that does some marketing tasks to attract new tenants to park. This team can benchmark other parks, and industry's best practices to enhance its marketing effectiveness, and attract more residents. This marketing can have different approaches; to be more efficient, they may attract prestigious, well known companies to enhance its reputation, and the other one, and they can attract local SMEs to promote local economy. Parks could choose between two choices. By studying these approaches, this team decides on way of their marketing. This team plays a key role in park's successful performance because this is a park's main operation and succeeding in it means being a successful park

Individual Promotion

Individual learning is the base of organizational learning that, in advanced steps can lead to learning organizations. Knowledge of each individual can collectively increase organization knowledge content. Sharing this knowledge content among organization's staffs can create synergic environment in organization and help it be more responsive.
To meet this goal, creating a team for educating and promoting staffs is inevitable. Considering different tasks of each individual in organization, there is a variety of educational needs that have to be fulfilled in an appropriate mode. This team gathers and analyzes these requirements to find correct and qualified educator to educate these people. Regularly, these needs are unique or few people need it, or on the other hand, educating these courses may be money consuming. In these cases, this team decides how to satisfy this need efficiently (for example to choose between send few people to external courses or inviting educators to hold a workshop or training course).
In the case of expensive courses, staffs that were sent to be educated must transfer their learning to other members to promote organization's knowledge and facilitate organizational learning.

Management Team

In this model of parks, other teams each have their own specialized task that is to be done on their own specific method. This kind of specialization is necessary to assure that each task is done efficiently but also have some negative aspects. The most important of them is the problem of coordinating and integrating between these teams.
Communication between teams and departments in today's organizations in a well-organized form is an essential key to their desired performance. In this model, these communications between teams are mainly in horizontal structure. In management and organizing science we use horizontal communications as a tool for coordinating between teams.
Also, rather than coordinating, integrating is other critical purpose of these communication. Strategy scientists say that integrating among strategies is essential to success of strategies. There are several

horizontal communication tools in organizing science. In this model we employ and use a team called "management team" to do this.
Management team acts as effective tool to coordinate and manage these teams. This team is like system's brain and check and control system's performance to make sure of its effectiveness and efficiency.
This team holds some coordinating sessions and meetings among other teams. For example when individual promotion team holds courses for some of the staffs, if other teams need these ones, they can organize some classes for other ones to use these educated peoples knowledge. By designing and controlling the information sharing process in the organization, this team can coordinate other teams well.
Also this team decides on parks development plan, its strategic direction and whole park's performance measurement.

Conclusion

Changing environment of developing countries need some organic and flexible organizations that can adapt these environmental changes. These organizations and besides surviving in such an environment, grow and become leading organization.
This model is one of many possible models that can be applied to parks to make them more organic and flexible. Like other models and concepts of organization structure, implementing model in organizations has some challenges. One of key factors is management support; researches show that until management didn't believe in this model and didn't support it, it is to be failed. So, first of all in implementing and applying this model is managers, to somehow they can guarantee its success or failure.
The other important factor is organization's culture. Some cultures encourage innovation, creativity, new concepts, new forms, and some do not. Culture is an effective element in organizations that is ignored in evolving projects. To successfully apply new models to organizations, first you should develop its culture to your organization's body. By creating suitable culture in STPs, managers make it easier to employ model and use it properly.
Applying this model to parks in not the only factor of making them successful and outstanding among others, but using it beside other modern and tested theories and models help organizations accomplish their mission and achieve their goals.
Using this model can help parks survive in turbulent environment of today's business by giving flexibility and organic spirit to them. They can learn from environment, sense its changes and respond them in a timely and effective manner to make their organizations one of the leading and best practices in their industry and region.
Implementing this model effectively need knowledge about evolve science in management practical theory. It must be done gradually in parks to reduce resistances that will be raised during implementing session.
Other models also can link this model to help science and technology parks work superior, and survive in environment of developing countries and decrease their dependency on government and give some extra independency and flexibility to them.

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