

ASSIGNMENT

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1. Discuss the role of technology at the enterprise level in a nation. List out the factors which may affect the management decisions concerning technology.

TECHNOLOGY STRATEGY FOR ENTERPRISE

THREE LEVELS

- 1.replacements of obsolete techniques with newer ones, and continuous modernization of existing technologies for improving productivity and competitiveness.
- 2.development and introduction of new products with a view to diversify.
3. Setting up of new units.

TECHNOLOGICAL CHANGES AT THE ENTERPRISE LEVEL SHOULD TAKE COGNISANCE OF THE FOLLOWING:

1. Country's changing economic scenarios
2. Changing cultural and living standards
- 3.government policies including those with respect to import and export their effect on cost.
- 4.global changes taking place in the range of products affecting the economic scene and living standards.
5. Intensity in competition.
- 6.economic and sociology of conservation and pollution control consciousness created

As a result of government policies and pressures.

TECHNOLOGY GAPS AND ENTERPRISE NEEDS IDENTIFY THE GAPS IN THE ENTERPRISE LEVEL.

- 1.feedback data on the performance of existing equipment and failure analysis report –comparing productivity , cost of production and quality vis-à-vis acceptable standards.
- 2.feedback data on basic product parameters vis-à-vis other competitors and keeping watch on their plans and activities.
3. Technology scanning by product group.
4. Interaction with customers, foreign companies, consultancy organizations, institutions etc
- 5.mapping the international technological status through tendering , obtaining quotations, engaging foreign consultants and evaluating the same in terms of domestic / exports environment for the enterprise.
- 6.clearly defining the technology life cycle of new products as a consequence of technological change by means of cost benefits analysis and with reference to time frame for implementation.
7. Energy conservation and pollution control policies and strategies.

THE PLAN OF ACTION TO IMPLEMENT THE STRATEGY MAY INCLUDE

A] resource analysis of the company in terms of availability of technological expertise , finance, skills and equipment.

B] analysis of the customer needs and the time frame of validity.

C] analyze the global data regarding the state of the art of the technology group carries out an evaluation of available options and the cost benefits analysis to arrive at an investment decision.

D] Identify the route: technology acquisition v/s in-house development.

EVALUATION OF TECHNOLOGY OPTIONS AND ROUTES.

The technology evaluation has the following 3 critical parameters.

- A] Resource analysis by the enterprise.
- B] techno-commercial considerations of the customers.
- C] techno-commercial considerations of the enterprise.

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THE TECHNOLOGY PROPOSED TO BE ACQUIRED FROM OUTSIDE MAY BE EXAMINED WITH RESPECT TO THE FOLLOWING

- adaptability and reliability of operation and maintenance of the proposal product / process/ equipments in the Indian conditions.
- suitability of indigenous raw materials and other local endorsement for the technology.
- major technical features/ parameters of the product/ process such as performance / efficiency / productivity , inputs like power consumption , fuel consumption etc
- Performance and reliability indicators of the products and processes.
- Government guidelines for import of technology.
- up gradation guidelines and the costs involved
- participation by foreign collaborators
- competitiveness and reputation of the licensor's products in the Indian and world market together with market share and back up service.
- willingness on the part of the collaborator to assist the licensee in attracting the site problem , removing generic defects in the equipment and debugging other operational problems.
- capability with regard to other product range , types, models etc not covered, in the original agreement.
- possibilities of engineering and other back up support within the country and potential for indigenization as fast as possible.
 - cost analysis for enterprise and its comparison with global and domestic competition.

AFTER EVALUATION OF THE TECHNOLOGY PROPOSAL , IT IS ESSENTIAL TO CLARIFY THE SCOPE OF TECHNOLOGY.

- MANAGING TECHNOLOGY TRANSFER / ABSORPTION
- MANAGING RESOURCES
- MANAGING TRAINING AND DEVELOPMENT.

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2. Explain the concept of Information Technology Revolution citing relevant examples.

IT (information technology) is a term that encompasses all forms of technology used to create, store, exchange, and use information in its various forms (business data, voice conversations, still images, motion pictures, multimedia presentations, and other forms, including those not yet conceived). It's a convenient term for including both telephony and computer technology in the same word. It is the technology that is driving what has often been called "the information revolution."

This surge in the availability of more timely information has enabled business management to remove large swaths of inventory safety stocks and worker redundancies. Stated differently, fewer goods and worker hours are now involved in activities that, although perceived as necessary insurance to sustain valued output, in the end produced nothing of value.

Those intermediate production and distribution activities, so essential when information and quality control were poor, are being reduced in scale and, in some cases, eliminated. These trends may well gather speed and force as the Internet alters relationships of businesses to their suppliers and their customers, a topic to which I shall return in a moment. The process of information innovation has gone far beyond the factory floor and distribution channels. Computer modeling, for example, has dramatically reduced the time and cost required to design items ranging from motor vehicles to commercial airliners to skyscrapers.

In a very different part of the economy, medical diagnoses have become more thorough, more accurate, and far faster. With access to heretofore unavailable information, treatment has been hastened, and hours of procedures have been eliminated. Moreover, the potential for discovering more-effective treatments has been greatly enhanced by the parallel revolution in biotechnology, including the ongoing effort to map the entire human genome. That work would have been unthinkable without the ability to store and process huge amounts of data.

The advances in information technology also have been an impetus to the ongoing wave of strategic alliance and merger activity. Hardly a week passes without the announcement of another blockbuster deal. Many of these combinations arise directly from the opportunities created by new technology - for example, those at the intersection of the Internet, telecommunications, and the media.

It is not possible to know which of the many new technologies will ultimately find a firm foothold in our rapidly changing economy. Accordingly, many high-tech companies that wish to remain independent are hedging their bets by entering into strategic alliances with firms developing competing technologies. In addition, the new technology has fostered full mergers that allow firms to take greater advantage of economies of scale and thus reduce costs. Without highly sophisticated information technology, it would be nearly impossible to manage firms on the scale of some that have been proposed or actually created of late. Although it will be a while before the ultimate success of these endeavors can be judged, information technology has almost certainly pushed out the point at which scale diseconomies begin to take hold for some industries.

The impact of information technology has been keenly felt in the financial sector of the economy. Perhaps the most significant innovation has been the development of financial instruments that enable risk to be reallocated to the parties most willing and able to bear that risk. Many of the new financial products that have been created, with financial derivatives being the most notable, contribute economic value by unbundling risks and shifting them in a highly calibrated manner. Although these instruments cannot reduce the risk inherent in real assets, they can redistribute it in a way that induces more investment in real assets and, hence, engenders higher productivity and standards of living. Information technology has made possible the creation, valuation, and exchange of these complex financial products on a global basis.

At the end of the day, the benefits of new technologies can be realized only if they are embodied in capital investment, defined to include any outlay that increases the value of the firm. For these investments to be made, the prospective rate of return must exceed the cost of capital.

The Information and technology driven strategy structure of a (IT) technology strategy

The following are typically sections of a technology strategy:

- This is a summary of the IT strategy
 - High level organizational benefits
 - Project objective and scope
 - Approach and methodology of the engagement
 - Relationship to overall business strategy

- Resource summary
 - Staffing
 - Budgets
 - Summary of key projects
- Internal Capabilities
 - **IT Project Portfolio Management** - An inventory of current projects being managed by the information technology department and their status. Note: It is not common to report current project status inside a future-looking strategy document. Show Return on Investment (ROI) and timeline for implementing each application.
 - An inventory of existing applications supported and the level of resources required to support them
 - Architectural directions and methods for implementation of IT solutions
 - Current IT departmental strengths and weaknesses
- External Forces
 - Summary of changes driven from outside the organization
 - Rising expectations of users
 - Example: Growth of high-quality web user interfaces driven by Ajax technology
 - Example: Availability of open-source learning management systems
 - List of new IT projects requested by the organization
- Opportunities
 - Description of new cost reduction or efficiency increase opportunities
 - Example: List of available Professional Service contractors for short term projects
 - Description of how Moore's Law (faster processors, networks or storage at lower costs) will impact the organization's ROI for technology
- Threats
 - Description of disruptive forces that could cause the organization to become less profitable or competitive
 - Analysis IT usage by competition
- IT Organization structure and Governance
 - IT organization roles and responsibilities
 - IT role description
 - IT Governance
- Milestones
 - List of monthly, quarterly or mid-year milestones and review dates to indicate if the strategy is on track
 - List milestone name, deliverables and metrics

Relations the important components of information techno-strategy are information technology and strategic planning working together.

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METHOD OF CONSUMER PRODUCT PROMOTION OVER THE INTERNET USING UNIQUE PRODUCT PACKAGE NUMBERS.

A method for consumer product promotion through the Internet. A consumer purchases a package containing a consumer product identified by a universal product code and having a package identification number unique to the package. The consumer can access to a Web site to play an Internet game offered therein upon presentation of the package identification number to the Web site if the package identification number satisfies the following two conditions: the format of the package identification number matches a predetermined format, and the package identification number has not been presented yet.

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3. What do you understand by relevance trees? Develop a “problem relevance tree” for a solar car.

RELEVANCE TREE

A relevance tree allows you to map out your initial ideas on a topic, in this case 'demand for transport', and think through various sub-topics in order to help you identify a specific area to research. Here, TWO key factors are suggested as affecting 'demand for transport': 'the individual's ability to pay' and the 'need to travel'. Although a number of ideas are considered in response to the overall topic of 'demand for transport', the sub-topic of 'work journeys' as a branch from 'need to travel' appears to offer the best focus for a research project (this is placed in a circle). Thinking through a relevance tree, and perhaps adding notes regarding possible sources of information for each topic, can help you see whether your topic is too broad or too narrow to work as a dissertation project.

Demand for transport

Individual's ability to afford travel----- Need to travel

-----Work journeys

Cost of travel/ Income/ Leisure journeys -----Location of people Work activities Location of work Visits to places Holiday visits Day trips Visits to people Friends Relatives

SEE THE CHART "SOLAR CAR"

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4. Think of a technological innovation which has changed the world. List out the major attributes of this innovation and how these attributes can be used to develop a communication strategy for the target market.

Solution: **Internet/broadband/WWW (#1)**

Coming in at #1 is the Internet. Our slavery to Google, our addiction to Twitter, our ability to keep up-to-date on any given news topic, our ability to send and receive far too many e-mails...The Internet enabled so many other phenomenon that it's starting to realize the Internet as we know it only arrived in the '90s. But it didn't take long to change our lives forever.

The World Wide Web "WWW" or simply "Web" is an information space in which the items of interest, referred to as resources, are identified by global identifiers called Uniform Resource Identifiers (URI). It is often confused as being analogous to the entire Internet, whereas in fact it is a major subset of it. The purpose of the WWW is to allow users to view or make use of more than just text"

The internet / IT technology has made a significant contribution/BENEFITS to most businesses.

- Helps the business with speedy information to and from the customers. [SAVES TIME/SAVES MANPOWER/SAVES POSTAL CHARGES/TOTAL COST SAVINGS.]
- Provides almost a 24 x 365 service. [SAVES TIME / UNLIMITED COMMUNICATION= TOTAL PERFORMANCE IMPROVEMENTS]
- customers can book ORDERS anytime.[NO LOSS OF ORDERS/ TIMELY DELIVERY HELPS TO IMPROVE PERFORMANCE]
- provides auto response.[NO LOSS OF CUSTOMERS/ HENCE BUSINESS]
- Provides security with information. [NO LOSS OF INFORMATION/IMPROVES EFFICIENCY/HENCE PERFORMANCE]
- Provides privacy to the individuals. [MAINTAINS CONFIDENTIALITY AND HENCE RETAINS CUSTOMER BUSINESS AND HENCE BUSINESS]
- enables payment thru credit card [EFFICENCY /EFFECTIVENESS IN MONEY TRANSACTION AND SAVINGS/AVOID WASTAGE]
- provides 24 hour INFORMATION FOR CUSTOMERS ON PRODUCT/PRICES [IMPROVED SERVICE/ MORE BUSINESS/IMPROVED PERFORMANCE]
- can video conference with customer [single/group] [BETTER COMMUNICATION / IMPROVE BUSINESS RESULTS]

- can enable video clips for various PRODUCTS//SERVICES for the benefits of CUSTOMERS. [VIRTUALLY SELLS PRODUCTS FEATURES/BENEFITS AND HENCE IMPROVED SALES PERFORMANCE.
- Can provide site maps of BUSINESS LOCATIONS, IF YOU HAVE A SHOP. [ADDS STRENGTH TO YOUR BUSINESS PRESENCE]
- can enable YOUR BUSINESS TO manage YOUR PROCUREMENT programs [BY SETTING UP B2B E-COMMERCE AND IMPROVED BUSINESS EFFICIENCY]

The Impact of the Internet on Business

The Internet has a wide variety of uses. It provides an excellent means for disseminating information and communicating with other people in all regions of the world. While the greatest use of the Internet has been sharing information, other sources of use are rapidly developing. For instance, chat rooms, a space where people can go to discuss an assortment of issues, and Internet Commerce, which connects buyers and sellers online. The following are other examples of current Internet uses:

- 1. Technical Papers**
- 2. Share Company Information**
- 3. Product Information**
- 4. Advertising**
- 5. Business & Commerce on the Net**
- 6. Magazines**
- 7. Newspapers**
- 8. Employment Ads**
- 9. Stock Quotes**
- 10. Country Investment Information**
- 11. Order Pizza**
- 12. Software Distribution**
- 13. Traffic Information**
- 14. Tourism**
- 15. Movie Previews**
- 16. Chat Rooms on AOL**
- 17. Interactive Computer Games**
- 18. Real Estate**
- 19. Process Mortgages online**
- 20. Buying stocks**
- 21. Ordering products.**
- 22. Live Video**
- 23. "Chat" Internet Telephone**
- 24. Video Conferencing**
- 25. Auto manufacturing**
- 26. COMPUTERS manufacturing**
- 27. MODERN DISTRIBUTION**
- 28. PROCUREMENT FUNCTION**
- 29. FINANCIAL SERVICE**

30. PRODUCT SEARCH

31. ELIMINATION OF INTERMEDIARIES

32. AIRLINES INDUSTRY

33. AUCTION ONLINE

34. E-LEARNING

35. DISTANCE LEARNING

IMPACT ON BUSINESS MODELS

New possibilities on value creation and value appropriation do not only lead to a redefinition of the price equilibrium due to lower transaction costs, search costs, and customization opportunities, increased transparency and its impact on industry rivalry. More and more, the Internet is fundamentally affecting the market structure, as the offering of a firm may fundamentally change, thus affecting competitive dynamics. Entering e-channels with the appropriate strategy can create an enormous competitive advantage for traditional and dot.com companies, although the net effect for a particular firm depends on how its competitive positioning is impacted as Internet comes to the stage. Hence, while sometimes the Internet has allowed firms to simultaneously increase the willingness to pay of customers, and, because of the significant jump in volume, reduce the cost of providing these products and services, value appropriation might be impossible, as rivalry and transparentization of markets may make it impossible to establish a pricing scheme that allows companies to capture the created value. In this sense, we have highlighted the importance of taking into account that on the value creation side, both supply and demand are affected, be it through the reduction of transaction costs, in form of motivation or coordination costs, or the triggering of new organizational forms and work processes on the supply side, or through the reduction of search costs and new customization opportunities. On the other hand, value appropriation and pricing strategies depend on rivalry and new entry possibilities, increases in market transparency, and new products and price among others. The changes that the Internet provokes on the value creation and value appropriation sides will define how overall competitive dynamics are going to change the industry structure

Internet business models

The Internet offers numerous opportunities for the small entrepreneur. A number of these are:

- The Web as a shop window for goods and services, either
 - to inform prospective clients/customers of product lines, or
 - To enable products to be purchased online.
- The sale of high quality content delivered through the web.
- Offering high quality content free of charge, and
 - accepting banner ads, and/or
 - Acting as an affiliate for relevant businesses.
- Operating a portal, or one stop gateway to sources of valuable content, and
 - accepting banner ads, and/or
 - acting as an affiliate for relevant businesses, and/or
 - Charging a commission on sales resulting from traffic delivered via the portal.
- Operating an online community, and

- accepting banner ads, and/or
 - acting as an affiliate for relevant businesses, and/or
 - offering a facility for members to sell content (for a commission), and/or
 - Allowing selected corporate partners, for a fee, to provide valuable content alongside links to their products.
- Offering Web-related services, e.g. visual design, navigational design, information structure design, programming, multimedia production, server hosting/administration, consultancy.
 - Offering other services, e.g. secretarial, translation, accountancy, graphic design, and publishing.

THERE ARE MANY TOOLS AVAILABLE TO IMPLEMENT AND ENABLE THE PARTICIPANTS TO FULLY EXPLOIT.

- **After action review**
- **Balanced scorecard**
- **Benchmarking**
- **Best practice (or: Good practice)**
- **Coaching**
- **Double-loop learning (or: Generative learning)**
- **E supply chain failures in an organization.**
- **E-Learning**
- **Organisational learning**

Single-loop learning involves using knowledge to solve specific problems based on existing assumptions, and often based on what has worked in the past.

Etc

5. List out the options available for financing new technology projects. Explain each of them in brief.

BASIC TYPES OF FINANCING

Debt

Debt financing involves taking a loan or issuing a bond to provide capital and require repayment of both the amount of money borrowed and the interest charged on that amount. In contrast to equity investors, lenders who provide debt financing to a project do not own shares in the project. They provide capital for the purpose of earning interest. Because lenders must be repaid before distributions can be made to shareholders, lenders bear less risk than equity holders.

For this reason, the potential return to lenders is limited to risk-adjusted market interest rates.

Loans are a very common financing vehicle for development projects because they continually replenish the development fund from which they are drawn. Loan payments usually must be made on a specific schedule, and if they are late or if the loan is defaulted, the borrowing organization may have an extremely difficult time accessing financing in the future.

The major sources of debt financing are international and national commercial banks. Other sources of debt financing include multilateral development banks

(MDBs) and the International Finance Corporation (IFC), debt/equity investment

Funds, equipment suppliers, and private investors. These banks can play a major role by syndicating the debt financing of a major project among several banks so as to minimize their own risk exposure on any given project.

International funds dedicated to development projects will often create loans with generous repayment terms, low interest rates and flexible time frames. Such loans are called "soft-loans," and precisely because of their lower interest rates

and flexible terms, they are generally preferable to commercial loans.

An additional consideration with loan funding is that foreign loans are subject to foreign currency oscillations, risking that the principal amount borrowed and the interest owed could increase dramatically if exchange rates fluctuate. The

Economies of many developing countries tend to be unstable, and the costs of labour, goods, or equipment could fluctuate during the course of a long-term project, while the loan currency might fluctuate as well.

2. Equity

Equity investors provide capital in a project in return for a share of the equity of the project. It involves high-risk financing that expects high returns and therefore requires finding interested investors, who are willing to buy into the project,

And matching the investors with the project and the risks. It entails sharing ownership and/or revenues with the investment partner(s) through ordinary or preferential shareholding, including those equity investors maintain the right to get

Involved in the decision-making process of the project or company in order to protect their investment. The expected return on equity is generally two or more

Times greater than return on debt. In return for the higher expected yield, equity investors bear the greatest risks and have rights to distributions from the

Project only after all other financial and tax obligations are met.

Common investment channels to acquire equity financing include project developers, venture capitalists, equity fund investors, equipment suppliers, multilateral development banks, and institutional (banks, insurance companies) and

Individual investors. Because venture capitalists invest in new companies in their earliest and riskiest stages, they expect to earn even higher returns.

3. Grants and guarantees

Grants do not require repayment: they are essentially “gift” money with specific requirements or terms for use. Governmental and international organizations offer grants to promote environmental and development policies. Usually they include a statement of the work that will be performed using the money, including restrictions on how the money can be spent and the time frame during which it can be spent. Grants will often be directed towards the purchase of hardware and equipment required for a project. These financing vehicles often originate from private foundations, but can sometimes be procured from international development organizations such as the World Bank (WB), the Global Environment Fund (GEF), bilateral funding organizations, or through national renewable energy funding divisions as well. Guarantees are a contractual promise from a financing or otherwise well-capitalized organization to take responsibility for payment of a debt if the primarily liable organization fails to pay. For example, when an individual purchases a house, the house is secured as collateral. If the individual defaults on the loan, the house may be claimed by the lender to offset the incurred losses.

TYPES OF FINANCING MODELS

Thus far most of the financing for RE and EE projects in developing countries has been in the form of development assistance focused on providing technology in demonstration projects, and usually initiated and managed by the national government or external donor programmes. In recent years new financing models have been developed based on local capacity and higher involvement of consumers. The best known are micro credit consumer programmes for small-scale RE systems, and seed capital provision for small and mid-size enterprises (SMEs) to assist local entrepreneurs in starting up new businesses in clean energy products and services. The rationale behind these deal structures is to prepare young enterprises for later growth capital from more commercial sources.

1. Government-led model

As mentioned earlier, most of the financing programmes are still managed by a government body or donor organization, although the actual model can take on several different forms and include different market players.

For example in the PRONASOL6 project financing programme in Mexico, the over- all management and allocation of funds remained under federal government control, but it also involved some form of private sector participation, as a vendor of goods and services (not as the owner-operator) and a high degree of Participation from the communities. Approved projects were reviewed and technically approved by the utility Commission Federal de Electrician (CFE) in order to guarantee quality, before being let to Tender to get the lowest prices.

2. Market-based models

Due to the perceived high risk and low return on investment for RE and EE projects, few success stories using a market-based model are available. However, international aid agencies have been developing several market-based business models, especially for rural electrification programmes. To become economically viable with less or ultimately no governmental or donor support, RE and EE projects should strive to get embedded in conventional economic activity, by integrating more private actors in the process, by gradually increasing income through the delivery of energy services and the differentiation of the client base.

3. Consumer finance

The consumer financing (CF) approach implies consumers purchase their system from a dealer on credit by making a down payment and financing the balance with a loan, making periodic payments of capital and interest. The customer gets (gradual) ownership of the system. The loan plan is generally funded by a Separate, small-scale and unregulated financial institution. Successful programmes have kept the down payment at or below 25-30 per cent of the cash cost. By maintaining a high volume of installations, dealers can also reduce the price because fixed costs are spread over a larger number of units. The flexibility of interest rates is limited. Sustainable CF programmes can only reduce rates by seeking affordable financing, controlling operating costs, minimizing loan defaults, and ensuring timely recovery of capital and interest.

Finally, adequate after sales service and end-user education are important since they prevent poor system performance and therefore maintain cost recovery and achieve financial stability.

4. Leasing

In the leasing model, the leasing company procures systems on a wholesale basis, and then offers them to households through retail lease agreements. In contrast to the CF approach, the leasing company retains ownership of the system, although it is often gradually transferred to the customer. The leasing company usually is a dealer or a related financial or development institution. The payments from the customer cover the equipment costs of the leasing company minus a slight residual value, interest costs and a return on capital. Most programmes also allow the customer to purchase the system when the lease expires.

The main advantages of this model are the increased affordability for households thanks to the leasing option and the decreased transaction costs. Since the leasing company retains ownership of the system, it may be easier for the leasing company than in the case of consumer financing to secure capital and to disconnect delinquent customers.

5. EXISTING POLICIES AND REGULATIONS

Private investment occurs when investors can recover the investment made over a reasonable period of time with a profit. Since the financial sector perceives RE and EE projects as involving high risks, high transaction costs and often low returns, there is a need for specific policy intervention to stimulate private sector investment and financing by financial institutions. The major policy instruments to stimulate financial institutions to play a greater role in RE and EE projects have focused on decreasing the investment costs for project developers and investors, by adopting tax and subsidy schemes favoring RE and EE projects, and more sophisticated market-based support instruments such as quota and feed-in systems. Furthermore multilateral and regional development banks are dedicating specific funds to clean energy investments.

6. Quota and feed-in systems

Two main types of government policy instruments have been initiated in recent years to create incentives for investment in RE projects: those in which the government guarantees prices or provides a fixed level of subsidy and the market determines the quantity of renewable energy supplied (e.g. feed-in tariff systems);

and those where the government guarantees or mandates a given market share or quantity of renewable energy and the market sets the price (e.g. renewable obligation, renewable portfolio standard, mandated market share). Feed-in systems and similar pricing policies were adopted in Austria, Brazil, Canada, China, France, Germany, South Africa, Spain, and Switzerland.

7. Energy audits and feasibility studies

The lack of RE and EE investments is partly due to the limited information on specific energy consumption data in a given organization and a lack of awareness of the technical solutions available. Energy audits are conducted by energy experts for any industrial, office or household environment and result in a suggested ranking of the main energy savings measures and renewable energy investments that can be taken to reduce energy bills, based on technical and economical criteria. To increase awareness and activate this potential, energy audits are often funded or even offered free by governments and public agencies, especially for small-scale enterprises and households, which often have a limited understanding of their energy consumption profile. In other cases, energy conservation laws impose the mandatory use of energy audits for specific sectors. Once an audit has pointed out the main sources of energy consumption in the organization and measures are suggested, a feasibility study is conducted to provide a detailed insight in the pros and cons of a considered measure. Feasibility studies are generally carried out for measures requiring substantial investments and a revision of the technical and organizational set-up. The feasibility study evaluates the likely costs and benefits of the proposed project and helps to justify both company funds and investments from local, national or international banks or institutions. Enterprise expects to repay any lending institution involved) and a sensitivity analysis to determine how possible changes for key parameters could affect the rate of return.

8. Institutionalizing clean energy policies

On the institutional side, RE and EE policies and their implementation should be formalized through laws or national programmes approved by the government. Secondly, public RE and EE agencies should be established to implement national policies, the mission being to:

- Design, implement and evaluate programmes and measures;
- Contract a range of stakeholders, such as companies, local authorities, or Non-governmental agencies (NGOs);
- Ensure coordination with higher or lower levels of authorities (international,

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