Glossary

**4G**: Short for fourth generation, is the fourth generation of mobile telecommunications technology succeeding 3G. A 4G system, in addition to usual voice and other services of 3G system, provides mobile ultra-broadband Internet access, for example to laptops with USB wireless modems, to smartphones, and to other mobile devices.

**Advertising**: Advertising is a very powerful tool in a hand of companies to impart the communication about their products and services to their existing and potential customers. Advertising is used to persuade an audience to purchase their products and services.

**Allopathic Medicinal System**: Mainstream medical use of pharmacologically active agents or physical interventions to treat or suppress symptoms or pathophysiologic of diseases or conditions.

**Analytical Hierarchy Process (AHP)**: Multiple-criteria decision-making technique for analyzing and solving complex decision making problems.

**Ancient Wisdom**: Knowledge based on history, philosophy, mythology and folklore that are part of culture of people handed down from generation to generation.

**Artificial Neural Network**: Computational models inspired by human nervous system that are capable of machine learning and pattern recognition.

**Artisanal Fishery**: This kind of fishery promotes small-scale, low-technology, commercial or subsistence fishing practices, using traditional techniques and tools and traditional fishing boats.

**Batinah Coast**: This coast in Oman occupies an important location in the Gulf of Oman and is home to most of Oman’s population, because of the green plains.

**Bhagavad-Gita**: The most popular Indian philosophical text based on recorded conversation between Krishna and Arjuna before the war, a part of great epic of Mahabharata.

**Business Ethics**: A field of study that examines ethical principles and moral or ethical problems that arise in a business interaction.

**Capitalism**: An economic system in which trade, industry and the means of production are controlled by private owners with the goal of making profits in a market economy. Central characteristics of capitalism include capital accumulation, competitive markets and wage labor.

**Change**: Defined as ‘an act or process through which something becomes different; or out of which something new emerge’.

**China**: China has penetrated in European strategic sectors; investment increases.
**China Automaker:** A carmaker in China. The carmakers have their own factories to complete the production process of automobiles, including China-brand automobiles (BYD, GREATWALL) and joint venture automakers (Volkswagen, General Motors).

**Chinese Characteristics:** Political and cultural statement applied by the Chinese government to different areas, including science and technology.

**Chinese-Brand Automobile:** Automobile that is self-designed and developed by China, and has its own controlled core technologies and trademark.

**Cognitive Conflict:** The conflict among members in a team due to their difference in individuals’ value originated from different culture or education.

**Cold War:** The Cold War was a sustained state of political and military tension.

**Commercial Fishery:** This kind of fishery usually employ huge fleet of trawlers processing tons of fish every day, using advanced fishing gears purse seine, seine nets, dredges, hooks and lines.

**Cross Entropy:** Distance between two densities.

**Customer Behavior:** Performance of customers when they acquire, use, consume, and dispose of the product.

**Customer Capital:** Customer capital is an essential component of intellectual capital and it based on the customer loyalty and satisfaction. Loyalty and satisfaction of customer is very important for the success of the organization.

**Customer Intention:** An idea or a plan of a consumer’s conduct or action. Customer intention is the best predictor of consumer behavior.

**Decision Support System:** A computer-based information system that supports business or organizational decision-making activities.

**Direct To Consumer Promotion:** Direct promotional effort of the pharmaceutical companies to the patients (Bypassing the physicians).

**Dynamic Capabilities:** Capabilities that an organization must possess to achieve flexibility at strategic level.

**Employee Satisfaction:** Defined as degree to which individuals feel content and fulfilled their desires and needs at work.

**Employees Participate in Innovation:** Knowledge needed for innovation may originate from all employees besides the scientific elites. Salesman, front-line employees, R&amp;D personnel and service personnel can all be excellent innovators. Innovation should be the responsibility of all employees but not the task of a few scientists and engineers. In the process of innovation, try to embed innovation into each part of the organization and make all employees feel responsible for generating new ideas.

**European Union (EU):** Main source of technology to China.

**Financial Forecasting:** An estimate of future financial outcomes.

**Fishery:** The activities consummating in the harvesting of fish. It may involve capturing fish from the sea or raising them through aquaculture.
**Fuzzy Set Theory (FST):** Technique used for solving problems related to sets that have vague or fuzzy boundaries.

**GDP:** Gross domestic product (GDP) is the market value of all officially recognized final goods and services produced within a country in a year, or other given period of time. GDP per capita is often considered an indicator of a country’s standard of living.

**Genetic Algorithms:** A search heuristic that mimics the process of natural selection.

**Geographic Proximity:** We endow firms with dynamic characteristics of geographical location through calculating longitude and latitude. Proximity can be measured by distance. The closer the distance is, the greater the geographical proximity will be. We define the distance as the sum of square of the distance among three nearest firms in the geographic location.

**Government Policy:** Government policies are the one which mainly shape the industrial developments of a country.

**Gulf Cooperation Council (GCC):** GCC is a political and economic alliance of six Arab states, namely Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates.

**Huawei:** A Chinese telecommunication giant.

**Human Capital:** Human capital is the most important component of intellectual capital. It refers the skillful, educated, experienced, knowledgeable and motivated employees of the organization. Human capital is a backbone of the organization it cannot be owned, it can only be rented.

**Hybrid Systems:** A dynamic system that exhibits both continuous and discrete dynamic behavior.

**Importance Sampling:** Make the occurrence of rare events more frequent by changing probability density function which determine simulation result through change of measure.

**India:** Geographical scope of the research work.

**Indian Ethics:** Based on the Vedic literatures and have great influence in many parts of Asia such in the North East Asia, the Middle East and South East Asia.

**Industrial Development:** All nations need well-developed industries to provide the amenities (clothes, shelter, electricity, machinery and numerous other things of life) to its citizens.

**Innovation:** New battlefront in the assertiveness of China; the Chinese government wants to move from imitation to innovation.

**Innovation:** Defined as the process of introducing new ideas and creating something new in the field of product, process, organisation and market, and consequently putting them in productive practice.

**Innovation Network:** It is a innovative organization form, which formed by a variety of formal and informal contracts involved in innovation cooperation members. Firms are the main subject of innovation commercialization. Organizational cooperative partnership includes contractual strategic alliance, equity strategic alliance and joint venture. Firms cooperate with many different firms in order to achieve the purpose of innovation, making direct or indirect association among other firms, and then create innovation network in this paper.

**Innovation Performance:** Innovation performance is the results of the implementation of new technologies or new products development. It will
usually increase the value of the enterprise. The ratio of new product sales to firm’s total sales is generally regarded as a reliable indicator reflecting firms’ innovation performance.

**Innovation Performance:** It is the dependent variable. Because new invented patents in Communication equipment industry can determine the core competitiveness, we use patents to measure the innovation output.

**Intellectual Capital:** Intellectual capital consists of all intangible assets of the company including employees and intellectual property and relationship with the stakeholders.

**Intellectual Capital:** Intellectual capital is mainly represents the soft or intangible assets of the organization. It is the main source of the organization to create value added products and services in order to stay in a competitive business environment. Intellectual capital is playing a critical role to enhance the performance of the organization.

**IT Sector:** Sector related to information technology and related services.

**Key Intangible Performance Indicators (KIPs):** Defined as strategic qualitative measure, based on intangible factors that help an organisation define and measure progress toward organisational success.

**Key Performance Indicators (KPIs):** Defined as the strategic quantitative measure, based on tangible factors that operationally guide organisations toward long term organisational success.

**Kinked Exponential Growth Rates:** Kinked exponential growth rate is a method to obtain growth rates for the sub-periods.

**Knowledge Sharing:** A group of people, teams or organizations exchange their knowledge including information, skills, technologies or plans. In the knowledge sharing process, all members will contribute to the sharing activity and get benefits from it.

**Leadership:** Defined as ‘the action of guiding or directing a group of followers or people of a nation or employees of an organization to achieve a common goal. A person demonstrating an ability of leadership is called a leader’.

**Leadership:** Defined as the process of building interpersonal influence by the leader to motivate, inspire and lead followers to meet specific objectives.

**Leadership:** Art of or a process of influencing (also inspiring, transforming, motivating, etc) a group of people towards a common goal.

**Management:** Defined as ‘the process of dealing with or controlling both physical and human resources’.

**Market Valuation:** It is the market capitalization of shares.

**Multi-Cultural Virtual Team:** A group of members usually come from different cultures who work together for certain tasks or as a working group through virtual tools such as a standard forum or instant messenger.

**NBN:** National Broadband Network.

**Negative Behaviour of Patients:** Behaviour of patients that harms, interferes with or complicates their process of recovery from illness.
**Network Density:** Network density means the overall level of the interaction among all members in the innovation network, which determines the rate and scope of information diffusion. Generally speaking, in the high density of network, companies have a good network link, thus they have better innovation performance.

**Nobel Prize:** Top priority for China which has never won a Nobel Prize for Science.

**Oman:** Oman is one among the six prominent gulf countries in southwest Asia. Bordered by the United Arab Emirates to the northwest, Saudi Arabia to the west, it carries a long coastline that has attracted majority of the population to fishing for a long time.

**Online Shopping:** Online shopping or e-shopping is a form of electronic commerce which allows consumers to directly buy goods or services from the supplier by using internet.

**Open Door Policy:** Describes the economic policy initiated by Deng Xiaoping in 1978 to open up China to foreign businesses that wanted to invest in the country. This policy set into motion the economic transformation of modern China.

**Open Innovation:** “Open innovation” was brought forward by Henry Chesbrough in 2003. Open innovation means that companies can and should use external ideas as well as ideas and take internal as well as external paths to market. Open innovation emphasizes the role of other departments besides the internal R&D department, emphasizes R&D collaboration with outside organizations, emphasizes integration of internal and external knowledge, and emphasizes outside distribution to market.

**Organizational Success:** Defined as the state of achievement where an organisation attains excellence in both profitability and market share.

**Organization:** Referred to ‘a business firm, company, corporation or institution such as university or government agents that have a particular purpose and objectives’.

**Participation:** Referred particularly to ‘people taking part in some action or attempt, such as employees taking part in organizational decision making; or people’s involvement in making contribution to their ideas and suggestion for organizational improvement’.

**Patents:** China plans to register patents at a rate of two million per year by 2015.

**Pharmaceutical Products:** Products intended for use in the medical diagnosis, cure, treatment, or prevention of disease.

**Physician:** A professional who practices medicine, which is concerned with promoting, maintaining or restoring human health through the study, diagnosis, and treatment of disease, injury, and other physical and mental impairments.

**Portfolio Credit Risk:** The risk for any default of multiple obligors.

**Prescription Drugs:** Medicines sold only to consumers possessing a valid prescription.

**Proactive Structure:** By effectively using some collaborative technology capabilities, the positive aspects of diversity can be leveraged while the negative aspects can be limited.

**Product Performance:** Product performance is a generic term. Despite the fact that, it refers as the satisfaction of consumers need. If the customers are satisfied from the utility or attributes of products and services which are offered by seller we can say that the products or services have good performance.
**Productivity:** It the measure effectiveness of a person, machine or system to convert inputs into outputs.

**Profitability:** It the condition in which the organisation yields financial profits.

**R&D Collaboration:** With the fast pace of the change of technology and market, resources that technological innovation needed are diversified. Even the best companies with the most extensive internal capabilities can’t undertake technological innovation activity alone. Therefore, it is important for enterprises to set R&D collaboration with users, suppliers, firms in other industries, competitors, universities and research institutes to break out the restriction of resources.

**Rare Event:** The probability of event is very small, say smaller than.

**Reform:** The improvement or amendment of what is wrong, corrupt, unsatisfactory, etc.

**Regional Location:** In order to study the effect of firm standing in the several regional economy circles on innovation performance, we use a dummy variable to represent whether a company is located in three major economic circles, which are about Yangtze River Delta, Pearl River Delta and the Bohai Rim, in the alliance innovation network.

**Reputation:** Defined as perception and image built over time and held by people in public about a person, organisation or product characteristics.

**Research and Development (R&D):** Strong commitment of the Chinese Government; investment increases 20% per year.

**Responsibility:** Referred to as the state or fact of being accountable for something. In the organizational context, responsibility refers to the state of having a duty with something or of having authority to control over physical, human and natural resources.

**Science and Technology:** China wants to be a powerhouse in science and technology and in 2006 launched a plan for the medium and long term.

**Security:** Security is defined as the degree of resistance against potential threats. In internet domain computer security refers cyber security. The security of online computers requires to covers all processes and mechanism and to protect it from unauthorized access.

**Security:** The degree of resistance to, or protection from harm. In this chapter it specially refers to sensitive information of countries in the telecommunication sector.

**Security Risk:** Referring to the possibility of the degree of resistance to, or protection from harm.

**Simulation:** The process that research into physical system by modeling system.

**Social Networking:** A social networking refers a platform to build social network among the people to exchange their point of view, mutual interest, etc. Internet provides a best platform to establish social networking among the people.

**Socialism:** A social and economic system characterised by social ownership of the means of production and co-operative management of the economy, as well as a political theory and movement that aims at the establishment of such a system.
**Strategic Flexibility:** Ability of a firm to proact, react, reposition quickly or to adapt to highly volatile market environmental conditions, with the help of its resources and capabilities, so as to maintain its competitive advantage.

**Structural Capital:** Structural capital is a skeleton or glue of the organization. It mainly, based on the database, procedures, guiding principles, rules etc. this capital helps to perform the organizational functional smoothly.

**Sustainability:** Being less intensive and less stressful on fish populations than modern industrial fishing, traditional fisheries in Oman has given its population a means of subsistence and sustainability by conserving fish resources and ecology.

**Task-Oriented Conflict:** The conflict among due to their disagreement on task-related questions, such as task objectives, task plan, and progress.

**Technological Capabilities:** Ability of an organization to adopt or upgrade technology in an effective manner in response to the changing market and customer requirements.

**Techno-Nationalism:** “Chinese characteristics” applied to technology through nationalism.

**Telecommunication:** Communication at a distance by technological means, particularly through electrical signals or electromagnetic waves.

**The HKNet Project:** A project held by universities to help students experience a real project by working in a virtual team.

**Theory of Planned Behavior (TPB):** A theoretical model that explains the determinants of intended behaviors in psychology and marketing studies. TBP helps people understand the reasons or motivations for human behavior.

**Trust:** Defined as ‘having faith in or putting one’s confidence and belief in someone or something. In the organizational context, trust refers to mutual confidence and reliance of employer and employees, or of managers and subordinates’.

**User Innovation:** Good ideas come from observations and listening to users respectively. Most new products originated from the ideas put forward by users. In order to develop successful products, manufactures must understand users’ needs correctly and make new products be accurately responsive to user needs. Therefore, inviting users to participate in the process of new product development, letting users be designers of new products, which will speed up the innovation and reduce the market uncertainty of the new products.

**Value Added Intellectual Co-Efficient (VAICTM):** It is the model developed by Ante Pulic to measure intellectual capital efficiency in any organisation.