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KNOWLEDGE-BASED, JOB CREATION ECONOMIC RESILIENCE: PRINCIPLES & PARAMETERS

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Abstract:
Economic Resilience is a knowledge-based notion, lately launched by Imam Khamenei, the Iranian supreme leader. Economic resilience is defined as the policy-induced ability of an economy to withstand or recover from the effects of internal & external shocks. (Briguglio et al, 2008) The present paper has briefly reviewed & extended the research towards the development of a conceptual and methodological framework for the definition and measurement of economic resilience to propose an index for gauging the adequacy of policy in twenty broad areas. This exploratory, GT-based study intended to delve into two basic relevant notions, whose beneficiaries were announced to be academicians in general and academic decision makers in particular to change the curriculum in favor of promoting start-ups & mega markets. The speculation needed to satisfy two basic requirements: firstly, it has been based on a faith related endeavor and secondly it has operated like the theory of the game, working in a non-adaptable system, as a mathematical operation. In addition, Nash equilibrium seems to be part of that system, with an interaction between two poles: a religious duty & a socio-cultural, economic one, pioneered by the Imam for checks and balances on the notion. Hence, it does not rely on a vicious circularity type of If X, then Y model. Concentration seems to be on microenterpreunership, which has been recently introduced, especially in form of new job opportunities with basic commonalities: informationalism & information processing, patent registration, Neoliberalism, database development, universities new missions and task-based ELF rather than EFL learning, while inputs are basically

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written in iconic language and their outputs are necessarily in English. Qualitative results, driven from an open-ended questionnaire are supportive of the research questions.

Keywords: economic resilience, knowledge-based economy, start-ups, checks & balances

1. Introduction

Iran's socioeconomic condition is swinging in a pendulum, moving from ideals, voiced by the Supreme Leader or the Imam, to realities, which coexist in the ecology of Iranian society. Voices of the Imam call for Islamatization of socio-economic, and cultural values in form of independence, national Islamic identity, calling for an economic modification in form of fresh attitudes toward educational carriers, Economic Resilience & alike on one hand and realties in form of inflation, deep dullness, stagnancy, rise of banking & financial credit institutions, which are encouraging "Haram" soaring interest rates, imports exceeding exports, oil revenue dependency, high unemployment rates, jobless undergraduates, importing luxurious goods to promote a new middle class life style, closure of traditional industries, business sectors, and factories on the other.

Although there is no generally agreed definition as to which variables should be Economic Resilience attributed to, it is reported to be a contrivance towards the formulation of policies aspired at surmounting the adverse consequences of economic vulnerability. It is also associated with actions undertaken by policymakers and private economic agents, which enable a country to withstand or recover from the negative effects of shocks. To put it differently, Economic Resilience, formerly known as "Singapore paradox" or the ability of Singapore to build its resilience in the face of external shocks, undertakes structural changes affecting the developing and transitional economies, provides an opportunity for the promotion of policies leading to robust, impartial and environmentally sustainable growth, and promotes capacity strengthening and training in the field of economic and social policy making to attain high GDP per capita. (ibid) In his hypothetical construct, Briguglio (2004) identifies four possible scenarios to that end: best case, worst case, self-made, and prodigal son. The best case scenario is appropriate to countries inherently adopting resilience-building policies; the worst-case one is applicable to those inherently running policies counter to economic resilience; self-made scenario is appropriate for the ones, which are economically resilient while they withstand the effects of their inherent vulnerability; the prodigal son category, which is based on an analogy that these countries though born in a good family waste their riches, are attributable to countries with low inherent

economic vulnerability but their policies are deleterious to economic resilience, so exposing them to the adverse effects of shocks.

Warschauer, (2000) has already referred to informationalism, the by-product of which is transnational disorganized corporations with academically-educated handymen rather than simple labors, who are constantly analyzing textual information from academic articles. In this new socio-economic world, the dominant lingua franca will be Englishes rather than English in form of ELF. The present research has reflected on the offshoots of the new society in a heuristic, analytical, exploratory, introspective, qualitative, Barney Glaser's G-theory in a multi method design. The research purpose is to disseminate job applicants with the potentials of the research-based economic laden approach & get them prepared to that end. Language instruction is part and parcel of this approach, done via an ESAP, assessment-based instruction, which is perfectly congruent with the constructionists' model of speculation. (Motamedi, 2014) Hence, job creation will lie at the heart of science & technology. Hence, familiarity with this religious conception necessitates acquaintance with key denominators: informationalism, new mode of education, future employment varieties, ELF task-based lingua franca versus linguistic hegemony, ICT in the market, globalization trait, innovation in microenterpreunership, creativity & critical thinking, commercialization of patents, start-up firms, home-grown green jobs, and Neoliberalism in a sense. Former researches have suffered from shortcomings, resulted in failure & inefficiency of the notion. The advantage of the present research is its reliance on the Imam's religious duty for checks & balances to prevent deviations.

2. Research Methodology

The Method was basically Barney Glaser's GT style of data elicitation; G-theory necessitated deep literature while participants were experts in the field; materials were key concepts extracted from their research papers, already published, tabularized and shared among them via LinkedIn platform. Consensus model appeared in the preceding taxonomy. The purpose of the present research paper is to rely on the intuitions of the cited researchers & scholars to collect their comments as checks & balances.

3. Key Concepts Characterization

3.1 Economic Resilience

A notion, recently coined by Imam Khamenei, The Supreme Leader of Iran, whose conceptual background can be traced back to qualitative rather than quantitative

enterprises; while principles & parameters of the Imam's socio-cultural notion are not delineated thus far. The study reflected on a qualitative rather than quantitative multi-model, analytical, exploratory, heuristic, Barney Glaser's GT method to crystallize this conception & make it a workable scheme. It is referred to as a perception, which connotes a religious undertaking for socio, cultural, economic amendments in the Iranian society. The modification makes it inimitable in the way that unlike Neoliberalism, the motivating force & rational behind that adjustment is originated from the religious "*Fatwa"* or verdict of the Imam for checks & balances.

Economic Resilience is an overarching umbrella term covering basic indices of gauging the adequacy of policy in four broad areas, namely macroeconomic stability, microeconomic market efficiency, good governance and social development. (Briguglio et al, 2008) Nevertheless, certain concepts necessarily tend to be included in that model of enterprise, which need deep scrutiny. Such enterprises are reported to reap informationalism, innovation, overall added value and competitiveness in the long run. (Caroline Reeg Bonn, 2013) Accordingly, enterprise growth & firm-level innovation are reported to be strongly interlinked. In an "Onion" model, several layers are reported to impinge on the concept, which upgrade such an entrepreneurship. These crucial factors are enumerated as: (1) age & gender of the entrepreneurs; (2) skills & abilities acquired through formal education, work experience, induction and training; (3) the firm's age, its location, its registration status as well as its sectoral embededness; (4) R&D, innovation system, cumulative process of economic learning. These informal modes of globalized economic governance drive enterprises, upgrading through collective efficiency and collective learning (Meagher 2010). The chisel impinges on education in general and higher education in particular. Educationalists find new roles to lead knowledge rather than information toward academic commercialization & marketization.

3.2 Education & Curriculum in the Economic Resilience

Education is undoubtedly the most influential denominator in the socio-politico-economic, cultural & technological milieu, which instigates the potentiality of innovation and critical thinking. EQ or emotional intelligence seems to help students, in general, and job-seekers, in particular, to activate their critical thinking, to utilize their attained information into knowledge, and to effectively deal with the demands of the daily life & work, while IQ end result will be logical thinking & better achievement scores. Considerable researches have been done on the impact of emotional maturity & peoples' work performance. Hence, emotional competencies are reported to be a learned capability, resulting in outstanding performance at work. (Ogundokun, 2010) In another speculation, higher-order thinking, which includes transfer, critical thinking &

research-based activities, becomes the end-product of the educational system. (Collins, 2014)

Curricula help the learners leap over the barriers of retention to making sense of and being able to apply what they have learned, applicability of the skill to out-of-school life as well as critical thinking promote the students' ability to judge the credibility of a source in addition to identifying assumptions, generalization and biases, language connotations or the hidden message, purpose, plus main idea of a text; problem solving refers to genuine solutions, not yet known; hence, education is no longer an end per se, but means to producing better, creative problem solvers, which is the rationale behind TIMSS (Trends in International Mathematics and Science Studies protocols).

Technological advancement has already paved the path for such a change. Via technology, the teacher can personalize learning, which makes it replicable to societal problems; attending to individual differences, which, altogether, will add to the advantages.

Mind maps or putting information into hierarchical system will be the next advantage. The maps make review & refreshment of the information in the mind applicable.

Sense of humor can provide a stress-free, conducive atmosphere to enhance learning. (Sachou, 2014) Use of mnemonics- key words and scenario analysis can develop a tendency to make problems learned in a task-based manner. (ibid)

Scaffolding, support before the actual lesson, or Thomas & Thorne's multi-step process, (2009) is said to be effective in activating higher order thinking skill: naming the critical (main) features of the concept, naming some additional features of the concept, comparing the new to the already known, naming some false features of the concept, giving the best examples or prototypes of the concept (what it is), giving some non-examples or non-prototypes (what the concept isn't), and identifying other similar or connected concepts are parts of this hypothetical construct. This is exactly in line with the interactionists' dynamic reciprocal mode of theorizing behavior as a function of the environment & personality, from which curriculum developers can gain a lot more. Then, commercialization of higher education with emphasis on collaborative research & prepackaged educational materials pave the path for distance education with an eye to cheaper & safer productivity, sale of patents & exclusive licenses. Hence, the educated skilled labors will be introduced into the new market.

3.3 The Future of Employment

Throughout history, market has vastly shifted the sonata of employment, from agriculture and the artisan shop, to manufacturing and clerking, to service as well as

management occupations in addition to newly tech-based employment. Adopting and acquiring demanded skills by means of education have been inevitable by human labors. Beaudry, et al. (2013) document a demand decline for skill over the past decade, even as the supply of workers while higher education continues to grow. Hence, new jobs such as: Digital Death manager, Un-schooling Counselor, Armchair Explorer, 3-D Printing Handyman, Microbial Balancer, Corporate Disorganizer, Digital Detox Specialist, the Urban Shepherd, altogether are reported to be among the top of the list jobs within the next five years. Jobs are innovative & creative; databases are SQL, No-SQL or object-oriented ones, including: text, RDMS, flat file, hierarchical, centralized, operational models.

3.4 ICT in the Future Market

Autor and Dorn (2013), cited in Frey, (2013) document how computers have caused a shift in the occupational structure of the labor market, with emphasis on "Lousy and Lovely Future Jobs". Future trend is toward creating employment in high income cognitive, technological innovative-based, automated jobs and deaccentuating low income blue collar ones. Needless to say that jobs susceptibility to technologization, computerization & artificial intelligence in form of database development, data mining, machine learning, machine vision, and computational statistics significantly affect the labor market and many of the present occupations will be easily offshorable sooner or later and access to market information will necessarily promote text & data mining. Office machines in the banking systems- bar-code scanners and cash machines- or e-commerce, which have already reduced information processing costs increase demand for more educated white collars. Such technological polarization in computing dramatically lowers the costs of leaving information-based tasks to foreign worksites, (Blinder and Krueger, 2013). Tasks computers are able to perform ultimately depend upon the ability of a programmer to write a set of procedures or rules- database development- that appropriately direct the technology in each possible contingency. Technological advances in increasingly complex data sets or Zettabyte & Exabyte data reinstate terabyte ones and algorithmic environments substitute simple traditional compilers.

Medical evidences suggest how health care tasks have been affected by datasets providing chronic care & cancer treatment diagnosis, prescriptions & medicine handling, comparing each patient's individual symptoms, genetics, family, medication history, more flexible surgical robots, etc., used for benchmarking, recognition, and diagnosis. (Cohn, 2013)

Sensor data for legal and financial services via robotics, sensing transportation, capability of human driving, autonomous vehicle navigation, machine learning tasks,

monitoring patients in CCU or ICU, in addition, have relied on sophisticated algorithms, formerly performed by parasystem tasks. (ibid)

Pattern recognition via large data sets have already affected education via interfaces, algorithms, applications, modules by detailing how students interact in the learning process, their diligence in completing assignments, viewing their ultimate grades via e-assessment tools and allowing for machine learning algorithms & datasets to serve as interactive tutors, with teaching and assessment strategies statistically calibrated to match individual student needs, more effective predictions of student performance, or their post-graduation occupations suitability. (Woolf, 2010)

3.5 Informationalism as the Key Denominator

Informationalism will bring about a new postindustrial economic array based on information management, globalized manufacturing & distribution, flexible, customized production, science application via technologization, the offshoot of which will be new meanings of productivity, economic growth- operating via financial markets & transnational corporations- and inequality among those who control hypermedia and those who lack access & know-how, (Castells, 1996). Plainly, the meanings of job & employment will be replaced with new modes of businesses, innovative forms of manufacturing and services, arising from careful application of science and technology; customized production, marketing, and distribution; access to real-time, networked information; and a high level of globalized communication strategies; workforce requirements as symbolic analysts, whose skills embrace critical analysis, evaluation, experimentation, collaboration, communication, abstraction, system thinking, argumentation and persuasion (Reich, 1991), increasingly applicable in an English language-base, known in ELF- (English as a Lingua franca) contexts.

3.6 ELF Role in the Agenda

The new millennium has already started with the fear of hegemonic linguistic imperialism, associated with professionalization, sociolinguistic integrity, and technologization, necessarily affecting classrooms, curricula and school programs. On global level, Informationalism will be a token, incorporating technological advancements into English teaching curriculum. Subsequently, English as the language of commerce, business & job creation need to be the focus of the emerging curricula reform, (Spring, 2008). Implication of the ELF use, as the main language in the globalized context, in the globalized economy will be indisputable & ubiquitous. Hack, (2015) takes one step further to introduce transdisciplinary thinking, indicating the ability to move freely across disciplinary borders to achieve meaningful syntheses or a critical thinking that enables synthesis across disciplinary boundaries in self-study

language classrooms. He also favors "the new archeology of science" not as a ready-made synthesis but removing the distinction between such forms or genres of science, literature, philosophy, religion, history, fiction, etc in discourse confederacy. Based on such a conjecture, disciplines are not knowledge in themselves rather they are tools in the creation of new knowledge. Hence, when we teach language, we are teaching the way meaning is created in the world and language is a thinking vehicle rather than the object of thought.

Other scholars have already replaced EFL or ESL with ELF-English as a Lingua franca. Jennifer Jenkins, (2007 in Green, 2011) indicates that it is also referred to as the common denominator language used by international businesses and organizations in multilinguistic environments, Milovanovi, (2011); this predisposition to use English terminology for profession related ideas in non-English speaking environments becomes lucid as well. Hence, diverse professional groups hinge on specialized technical, scientific, medical, legal jargons & registers to communicate efficiently, without which productivity of businesses, information sharing, research & development based economy will not be viable, especially after the omnipresence of IT market and social networking. Then, new information technologies will make non-native English users rely on new notions of literacy, associated with on-line navigation & research; critical skills for them will also become authoring & interpretation of hypertexts; project-based learning and critical inquiry within the learners' cultural scaffolds will be required; informational economy in new social contexts will emerge. (Warschauer, 2000) Translation services have already proved ineffective to that end and almost all research papers have thus far been published in English.

Multiculturalism, a workable scheme in certain Eastern countries with the issue of diverse employee, consisting of different ethnic groups, races & various cultural heritages, has contributed to increased talent and creative potentials. (ibid)

Collaborative research via ICT changes reading from pages to the screens, which is less a passive act of decoding a message from a single, respected author but a self-conscious process of creating knowledge from diverse resources. Hence, reading in English will find an array of activities: reading for information through internet searches; on line assessment of the information credibility; navigations to follow the hyperlinks in the hypertext or leave the page; simultaneous saving & processing the information. (Shetzer & Warschauer, 2000)

Informationalism has already made writing in English undergo the same process of integrating texts for hypertext development with its specific genre and synchronous or asynchronous pragmatic under-determination. (ibid)

Global informational economy, altogether, changes employment patterns in academic circles with no permanent or full-time members; lecturers' working under

part-time or temporary contracts to develop or deliver course ware materials to a bundle of clients, which are users; deeply competitive status for vulnerable instructors to withstand in this era of commercialization of instruction; the administrators' careful planning to protect the instructors' intellectual property; multiliteracy as well as multidisciplinarity of sciences becoming ubiquitous.

Learners need to fulfill a new task in the Informationalism era: practicing, negotiating & critically evaluating complex concepts via technological literacy; stepping back under their mentors' guidance to critically assess communicative information and applying what has been gained in a socio communicative level; projecting discourse out of the realm of integrative or empowering one, far from the umbrella of registered syllabi, and orientation toward a counter discourse level. (ibid)

3.7 Globalization as the Next Trait

Globalization is a phenomenon like the term "intelligence", on whose existence there is no consensus, but its domains and functions are multi-faceted, (Green, 2011). Its positive economic impact, excessively restricted to global elites, is agreed upon but other dimensions, including political, cultural, and ecological ones are notorious, since some misapprehend their misconceptions as the rise of Americanization rather than rest of the world's rise. Poly model approach to Englishes is a response to this delusion. Kumaravadivelu, (2007) contends that to pass up cultural imperialism, the movement will be toward the notion of "cultural realism" in which individuals adopt a pragmatic approach to identity formation in globalization process, resulting in an "inadvertent, unanticipated movement toward tribaliztion that contributes to an increase in ethnic, racial, religious and national consciousness".

3.8 Resistance against Americanization, One-Sidedly & Linguistic Hegemony

Chinese president has already referred to the process of Americanization hegemony in his country as the most devastating trend, greater than the introduction of opium into the Chinese society, the fruit of which has been the impact of American lessee affaire, neo social liberalism on the local peoples' daily lives and family relations. Mustafa, (2014) postulates that the hegemony is a mass belief for the naturalness and correctness of new dominant social orders such that those who are actually subordinated by these views, come to systematically accept & internalize the dominant language norms & values or "*consciousness colonization of the mind*" in Tsuda's terminology as being "common sense" or natural, associated with a sense of success and hedonism via processes of: international scientific collaboration; presentation of the dominant language as an instrument/tool; globalization, internationalization, technologization; dissemination of knowledge, especially in the use of databases; sense of inferiority and

belittlement, whose end result is deliberate undervaluation of the local culture, arts, religion, history, geography, education, orator and literature; hence, undoubtedly, Americanization, whose ways of feeling & thinking were expected to be influential and warmly received through American information and artistic products never succeeds.

This de facto international language, formerly boasts of having 85% to 96% articles among academic publications in the language, the de facto official and working language in most international organizations, the most taught second/foreign language across the world and being the elitist accomplishment undergo newly created contexts. To hinder such supremacy, resilience mechanisms need to work, which include: vigorous use of the local languages, conscious awareness of polyglossia features or division of language functions, language conflict or competition, tension among speakers in the contact multilinguistic setting, (Mustafa, 2014). To that end, Tsuda (2014) introduces "the Ecology of Language Paradigm" as a counter-strategy to the Hegemony of English in order to find some implications for building a more equal international communication and linguistic pluralism, which is based on the theoretical positions such as Human Rights Perspective, multilingualism, maintenance of languages and cultures, protection of national sovereignties, promotion of foreign language education, on the ground that language is an environment rather than an instrument that influences, shapes people and creates their culture. The next mechanism is referred to as Neutralingual communication, based on which a third language arbitrates the American one-sidedly.

3.9 Innovation in Micro Entrepreneurship

Innovation or novel idea is reported to be the gateway or opportunity to knowledge-based, endogenous economic development, which includes three stages: technical discovery of new things or new ways of doing things- innovatively; successful commercialization of new goods & services, stemming from the first stage; diffusion of new products or processes into the markets, (Braunerhjelm, 2010). Entrepreneurship is contemplated to be a new opportunity, necessity-based venture & self-employment phenomenon link up innovation & knowledge, an indicator of which is the patent effect or the likelihood of becoming a firm owner. It occurs when information or codified data shift to knowledge. Patent data, still widely used as a reasonable index of innovativeness, are sold or licensed, (ACS, et al, 2002, in Braunerhjelm, 2010). Consequently, knowledge spillover theory of entrepreneurship governs, based on which investment is not required; individual-opportunity nexus operationalize; knowledge is combined with innovative R&D; business models and marketing strategies change; an entrepreneur perceives & creates new opportunities, operating under uncertainty, and always succeeding in new markets; a mobile working force

emerges as a new mechanism; traditional growth instruments of taxes & subsides disappear; knowledge creation is matched by incentives that induce mechanisms to convert knowledge into an increasing stock of economically useful, societal needs and finally the more successful the firms, the more likely they are to adopt innovative strategies. (ibid)

3.10 Creativity, Critical Thinking as the Route

In the past, learning a specific skill mattered but in today's world learning how to be more creative & adaptable work. That's what prepares students for the new mode of life beyond the classroom. (Hicks, 2015)

Hence, novelty means something never happened before. An example will be simply the question of "What is 2+2=?" and the response "It is 10"; beside appropriateness, it should be generative and lead to new ideas. Influential will it be when people follow that model of using the idea in future.

The primary basic challenge lies partially in the nature and definition of creativity itself. A consensus among scholars defines creativity as the ability to sense problems, make guesses, generate new ideas, and communicate results. (Torrance, 2000) Simply put it, creativity ranges from the lowest level of novel, appropriate, generative to higher level of influential ideas, Gerlovina, (2011); such a creative potentiality is reported to exist especially among divergent rather than convergent people, and can be triggered through learning. Albert Einstein speculates that it is the art of teachers to awaken joy in creative expression & knowledge.

Innovation, in developing countries, has not been repressed on lack of ideas but on lack of access to capital and commercialization pathways; and innovative patents has often been used as a proxy measure for the expansion of the knowledge-based economy. Hence, purposeful innovation to create new economic and employment opportunities as reported in the Summary of Melbourne East RDA, (2012) is to satisfy basic requirements: an ability to leverage the best ideas from around the globe; internet as an important source of knowledge; high participation in industry networking and knowledge exchange activities; highest spending on business acquisitions or joint ventures to acquire new knowledge and technologies, including ventures with public research organizations; development as a priority including adapting current knowledge or technologies to make new products; ongoing interest in undertaking R&D, mainly in-house or with suppliers and customers; close in-house collaboration between research and market development staff; a propensity to license new technologies and use them for new applications; design as an imperative factor in product development.

Robinson, (2003) believes that the current model of school system & academia leave little room for divergent thinking and most of the practice of creative methods is being done via unschooling-counselours. In psychodynamic model, Serendipity or pure luck is accounted to be a simultaneous and subconscious process, Bisociation of unrelated ideas in a dream state rather than association of related ones, leading to that type of creativity. In convergent brainstorming or project model rather than problem solving one, people try to put on the table what comes to the mind in their search for the better solution.

A bundle of research studies have concentrated on factors effective in promoting creativity; environmental factors are: sovereignty, autonomy, resources, encouragement of originality, freedom from criticism, low anxiety, an emphasis on self-discovery, and attention to the individual for which independence, self-confidence, self-esteem, the ability to communicate ideas, and nonconformity should be encouraged; Students' traits & characteristics are of secondary importance: cognitive factors- thinking, remembering, and reasoning- motivation- courage, curiosity, willingness, and task commitment- personality features- self-confidence, determination, persistence, tolerance for ambiguity and openness to new experiences- and social aspects- independence, nonconformity, and the ability to communicate ideas; plus traits including: determination, curiosity, independence in judgment and thinking, persistence, self-confidence, and willingness to take risks. Deterrent to creative thinking are also enumerated as test-like activities, salient rewards, external evaluation, pressure, order and discipline, less self-control over individual work, and less attention to personal ideas. Thirdly, the root factor that shows relatively consistent results is socioeconomic status (SES), i.e., differences in creative thinking are related to differences in SES. (Wang, 2011)

Hence, basic theories have prescribed certain other principles & parameters to that end, including comfort in disagreeing with others and trying solutions that depart from the status quo; combining knowledge from previously disparate fields; ability to persevere through difficult problems and dry spells; incubation- ability to step away from an effort and return later with a fresh perspective. (Adams, 2005)

Informationalism is accounted as the core concept of creativity, which needs to be triggered. To that end, Hicks, (2015) has simply introduced five models to enhance creativity: never limit assignments to one format; set time aside for creativity and devote it to encouraging students to explore new ideas; use tech & social media to broaden their idea of assignments, which make them better learners, better thinkers, and give them more incentive to care about the work they do; introduce unconventional learning materials into the class; and finally encourage discussion to promote communication, critical thinking & challenge over presented ideas; accordingly, the last

but not the least the following tips are needed to be included in the curricula by means of:

1. Embracing well-structured creativity as part of learning by bulletin boards, showcase creative solutions & real world scenarios.
2. Using the most effective strategies like creative arts & media-oriented programs to incorporate cognitive and emotional functioning.
3. Thinking of creativity as a skill. Psychologists refer to big ©, creativity, which drives societal ideas and little ©, as a working model that solves our daily problems.
4. Participating in programs to develop creative skills in form of designing competitions.
5. Using emotional connections in form of cyber-based topic-raising to collect valuable information from the blog post members.
6. Using a creative model to narrow down convergent exploration through these six steps of: mess-finding to identify a goal or objective; fact-finding, gathering data; problem-finding, problem classification; idea-finding, ideas generating; solution-finding, ideas evaluating & strengthening; acceptance-finding; ideas implementing via action planning.
7. Considering how classroom assignments maximize divergent thinking & minimize convergent thinking. The former amplifies association and multiplicity of thought while the latter magnifies analytic thinking or logical answers.
8. Creating congenial classroom environment to motivate the importance of reception from others.
9. Validating creativity by attending to a bit outside the lectures questions in a go back to later strategy.
10. Seeing creativity positively by rewarding students for thinking of problems in varied ways by recognizing their efforts.
11. Trying the incubation model via creating & highlighting the desire to know; brainstorming & creating opportunities to solve a novel problem; extending learning opportunities at home or even the community.
12. Using cultural, historical artifacts to have students dwell on living in particular time span. Exploring culture is reported to be a vehicle for inspiring unique novel ideas.
13. Establishing expressive freedom by allowing flexibility to foster creative approaches.
14. Getting familiar with norms, standards & frameworks.
15. Gathering & providing outside resources to make it a dynamic process.

16. Allowing room for mistakes because if one is not prepared to be wrong, (s)he'll never come up with anything original. (Sir Ken Robinson, 2012)
17. Allowing spaces like thinking tables, drama stages, drawing tables for group discussion and time to incorporate opportunities for wondering & exploration.
18. Encouraging confidence & curiosity because the former makes the learners conceited of their own presentations and the latter helps them find inspiration & insight from their own viewpoint.
19. Observing a working model of current creative experts in the field.
20. Fostering collaborative creative thinking models by designing multidisciplinarity in curricula.
21. Tapping into multiple intelligences. IQ is not enough, EQ needs to be triggered.
22. Making creativity as the core of the learners' jobs not created yet.
23. Teaching creative skills explicitly. Creative skills are not just good ideas but they are about skills to make good ideas happen. They prompt areas such as: imagination, being self-motivated, resiliency, collaboration, and having the learners develop their own projects.
24. Encouraging dreams as a pathway to creativity and discovery. (Coon, 2004)

Thus, logical thinking should be deemphasized and creative thinking needs to be highlighted. Subsequently, learners recall a dream that helps them solve both their personal problems and their future career ones.

3.11 Academic Commercialization of Patents Models

Developed worlds are witnessing how innovation ecologies have provided incentive & inertia for faculty members to trigger knowledge-centered, innovation-based, invention-supported economy. Sanberg, (2014) cogitates that societal expectations of universities have driven them toward a new mission of research-based economic development rather than just research, teaching & public services in such a way that licensing income, development output and patent citations to science and engineering literature as evidence of impact have become kernel to the form of academic research. Hence, in the progress of ideas' velocity from basic science labs to commercial application, successful universities are labeled as those who better translate basic research into commercially viable processes and technology.

Fund raising from alumni will be the offshoot of such a change, which provides a chance for the individual and the university to benefit from access to these funds that can be reinvested in productive ways. Then, papers published by such industry collaboration-based universities will have more citations; students & trainees gain precious experiences in the route of intellectual property management, which open up new possibilities for nontraditional students.

3.12 Patent as an Award to Invention

Invention is formally characterized as a combinatorial process of fabricating new artifacts, devices, services, materials or compounds, whose drivers are either exploitation of the existing technologies or exploration of the new ones, which is deeply paradoxical in that the combinatorial dynamic process contrast with the creation of new technological potentialities; however, the technologies are identified to be responsible for an invention's novelty, (Youn, 2015). Combinatorial nature of technologies & inventions point to the fact that new technologies are never created from nothing, they are combined or constructed from components of those previously existed, which have retroactively been already patented.

Types of patents include: utility patent- issued for the invention of new processes, machines or compositions of matter; design patent- granted for the ornamental design of a functional item and plant patents- conferred for new varieties of plants, seeds or agricultural products. Based on the unity of invention principle, a patent is limited only to one invention, but all patented inventions are unequally novel in a sense.

3.13 Startup Firms in Microenterpreunership Job Creation

Entrepreneurship is generally all about the detection & creation of new job opportunities and pursuing new ventures, whose backbones are small and medium enterprises (SMEs) but building blocks are micro ones. Entrepreneurs with higher academic backgrounds tend to be necessarily innovative, creative, techniques reliant, models dependent & risk takers. (Gupta, 2013) Hence, the success of the undertaking lies at its demand for high dynamism, flexibility, and innovativeness. The contribution of startups and young firms to job creation, which plays a critical role in innovative activity, is an indispensable ingredient of productive resources for microenterpreunership growth in developing countries and Iran is no exception.

3.14 Agriculture, Food Sciences & Technologization

In order for new jobs to be created, businesses need skilled labors to startup and expand. For such self-employed establishments to be successful, emphasis needs to be paid on agriculture & agro-industry sectors, food production industries, new modes of export & service ones. To materialize this conceptual framework, certain strategies are introduced, adapted from Research Projects at MSS- Employment Strategies for Developing Countries, MSS Research, (2016): agriculture as an engine, which is the essential source of food production. Many recently developed countries have witnessed rising agricultural productivity and a shift to commercial crops as a dynamic engine to stimulate job creation & domestic demand. An appropriate mix of un-schooling &

schooling counselors' joint effort via having access to technology, credit, marketing & distribution channels can guarantee the success if linkages between universities, research institutes and micro enterprises are forged.

Robotic industry has already changed non-routine tasks into the routine ones of agriculture, fish farming, food production, lawn mowing, gutter cleaning, food preparation; this procedure can be easily replicated. It is enough to make non-routine tasks predictable or the possibility of task simplification, possibly allow some currently non-automatable tasks to be automated. It entails making unfamiliar combinations of familiar ideas, requiring a rich store of knowledge, which makes more crops per drop tangible.

3.15 Home-Grown Jobs

Businesses are constantly creating and eliminating jobs as demand for the goods and services changes, which cause rises and falls in the labor market; but, in general, jobs created by out-of-state businesses or startups and young, fast-growing firms are the fundamental drivers of job creation, which can easily lead to economic growth. Mindful tax cuts policies, in the name of encouraging economic growth are among workable schemes simply because the owners pay personal income taxes rather than corporate income taxes on the businesses' profits. Researchers refer to such stable businesses as "gazelle" firms, which produce average annual job growth of at least 20 to 25 percent. (Mazerov, 2016)

Certain strategies are reported to be effective to that end, chief among which are:

1. Attracting businesses from elsewhere; working with existing businesses; and creating new businesses, (White, 2011). This is the first step, which suffers from shortcomings; it needs careful modification & planning: subsides to outsiders disconcert the insiders; those attracted are mobile and move again; they have few commitments to the local communities; it is also expensive & wasteful.
2. Service sectors' expansion like day-care services', kids' parks, nursery schools, food catering, home remodeling, marketing improvement, export promotion centers & councils, and rural public health can serve as a conscious strategy for employment generation. The second option is believed to promote the start of new firms & companies; it also bolsters existing companies.
3. Promoting export-oriented fashion in textile & clothing industry. Demand should be triggered & promoted in the target countries for fresh needs in that industry. The third option is advantageous on the following basis: universities receive top priority; jobs in form of gazelles are created, which are necessarily technology related; individuals rather than firms play influential roles; industrial distribution & growth will be affected by educational levels, which make jobs

more dynamic. (ibid) Such a deliberation triggers absorption of interconnected businesses, service providers and supporting coordinating organizations, boosts new enterprise survival, enhances productivity, income levels & job growth.

4. Extending education and disseminating information by encouraging a national climate of open-mindedness to economically advanced notions. Revamping & reorienting higher education to impart knowledge and attitudes rather than just information and to substitute entrepreneurship with salaried employment systems. Investment in education & technical schools can pledge the process.

3.16 Green Jobs

The third world in general and Iran in particular are suffering from "Green Economy" for energy conservation, which is linked with key terms like fuel, power, water, wind, solar, and biofuels, sustainable natural resource use, pollution reduction, environmental-oriented jobs or any economic activity that reduces energy and natural resource consumption, and improves environmental quality as a means of stimulating economic activity plus job creation. Even academic researches on what constitutes the green economy or a green job are profoundly scant & overwhelmingly negligible. Such jobs should be backed up by green policies, green economy, and green research studies, especially in the biophysical sciences, organic agriculture, impact assessments, and evaluations. Hence, research centers tend not to be the main drivers of green innovation. Peters, (2013) has already reflected on such jobs in terms of renewable resources, waste reduction and reuse, pollution mitigation, greenhouse gas reductions, natural resource management, and environmental monitoring. He has also contemplated that an area where green jobs programs can make a difference is in education, training at four-year educational institutions and curricula to green careers with the aim of patented studies in innovative-based research centers.

3.17 Neoliberalism, a Misconception against Economic Resilience

Neoliberalism or revival of liberalism is delineated as a non-paradigmatic departure, whose main focus is on the idea that governments ought to abstain from intervening in the economy, and instead leave as much as possible up to individuals participating in free and self-regulating markets. It is also associated with new concepts of laissez-faire economic policies, a night-watchman state, a new mode of political optimization in honor of Margaret Thatcher, the economic miracle of the West Germany's post-war or gate through for economic growth & advancement by non-economists**.**

The concept has its own proponents and opponents. The former ones are biased in its favor and speculate that the progression toward the concept of the knowledge economy has given rise to the augment of neoliberalism as the last resort regarding

educational policies, aims & processes, commodification of education as well as that of the learner. (Patrick, 2013) Hence, it tends to engender a technical rationalist approach to knowledge and its value, incorporated into an agenda of wealth production at nation state level via discourses relating to the knowledge economy, knowledge society, and, more lately, enterprise society. In addition, credentials, knowledge along with skills are valued in the global labor market; while the latter ones are biased against it as a neocolonial domination, born out of the Australian Libertarian tradition. Chinese extraordinary economic growth has been referred to as the outside representation of neoliberal triumph, whose elements include: multiculturalism, discursive framework, techniques & technologies, governmentality, cultural reappraisal, NGOs, individualization & professionalization, and degovernmentalization of the state, whose Chilean model has already produced heterogeneous outcomes. (Venugopal, 2015)

They speculate that universities and higher education, in general are no longer just cultural spaces to engage teachers & students in critique and discussion rather, in order to survive, they must package knowledge, deliver flexible education through ICT, provide adequate training for "knowledge workers", and produce more of them at lower unit cost, which is referred to as marketization of higher education.

The Chilean growth prototype, under the type of Washington consensus of neoliberal economic reforms and the shift from import substitution to external opening, has had unprecedented impacts on the environment, energy demand, urban insecurity, rising crime, pollution, pressure on natural resources, congestion, social stratification in access to education, persistent inequality of income & wealth, health plus pensions. Note to say, although they have altogether reduced the economic power of Chilean elites, people prefer pro-grow policies, thus tolerating inequality, provided that the economy is growing. (Solimano, 2009) Nevertheless, this simple growth is said to be the by-product of how capitalists achieved a hegemonic class position in Chile but not in Argentina. Because the bourgeoisie, the strata predestined to defend capitalism was empowered by the market reforms, was better able to defend and justify the new market model. (Undurraga, 2015) While both countries appeared to be on equal footing-both militaries had regarded their nationalized industries as key to defending sovereignty and national security in the context of a strong government in virtue of stabilizing inflationary threats and positive economic results following the reforms, qualified as upper-middle income economies, pursued agro-export strategies and reinforced the deindustrialization of their modes of production, the Chilean success was due to the unquestionable intervention of the militaries in producing a new bourgeoisie strata and the failure of Argentina in practicing the same neoliberalist model is attributable to the intervention of unions, destabilizing the military's codes of

producing such strata. In a nutshell, it seems as if militaries are key players, who have participated effectively in this regard.

3.18 Missions of the Universities in General & Their New Mission

Universities receive public funds and their elected representatives need to be accountable for the use of the funds in their fundamental mission. Among the missions, economic benefits are essentially indisputable - but not the whole story. The primary mission alters to respond to the needs of the society, which supports the university. For the time being, Iranian universities need to articulate Islamic values as the major voice of the society and the Imam's invitation for moving toward a well-recognized, knowledge-based society is an integral mission among the tasks of teaching and learning, while public willingness tends to support their mission. Hence, academicians should not go about their own business.

Based on the Imam's elucidation, universities are not isolated, conservative institutions or "ivory towers" to persist without responding to social needs.

As the first task, the west has already relied on the same concept, based on an interpretation of the book, entitled: "Universities, Ideas & Democracy". In the west, Universities have not been ivory towers; throughout history, they have been remarkably attentive to the needs of the society, which supported them. They have evolved and taken on new tasks as society required, particularly in the last 50 years when they accommodated mass university education, established and expanded professional schools, and became research institutions in service of the nation. (Fallis, 2004) The picture depicted from universities by Cardinal John Henry Newman, author of *The Idea of a University,* who implicates "liberal education" as the process of training, by which the intellect is disciplined for its own sake in training good members of society or the art of social life, while its last resort should be fitness for the world; a place of great breadth, where traditions of thought learn "to respect, to consult and to support each other, while apprehending the great outlines of knowledge, the principles on which it rests, the scale of its parts, its lights and its shades, its great points and its little, as he otherwise cannot comprehend them; to create free and autonomous individual, free from *a priori* constraints, fully human if one has subjected all of one's convictions to the scrutiny of reason; a sentiment captured in Socrates' declaration that the unexamined life is not worth living, also an education for citizenship; a place of teaching for students, of undergraduate education, not for research, which was to be practiced in literary and scientific academies. Undergraduate education was expected to develop the ability to: decode information with comprehension, encode with precision and clarity in the expression of disciplined thought, reason effectively in quantitative and formal terms, engage people of different cultural perspectives, appreciate the

modes of thought and expression of the natural sciences, the social sciences, the humanities and the arts, raise sensitivity toward the ideas, values, and goals that have shaped society and some sense of the moral implications of actions and ideas, introduce skill in one chosen area of knowledge, with an understanding of its assumptions, foundations, relationships and implications, and include some active participation in the life of the campus community.

The origin of the research mission as the second task goes back later to Kant's speculation of scientific discovery, dominated by reason & free inquiry rather than the needs of the professions at the University of Berlin in Germany as an archetype of more modern universities, where the combination of ideas and structures or teaching & research as inseparable entities, became primary duties of professors. Moreover, pedagogical methods in form of real dynamism and academic leadership were designed to simultaneously create new knowledge and fully-realized individuals, to make graduate education in science, technology and medicine as a mission of the university and to create a rationale for government support of universities coupled with university autonomy; hence, new chairs in natural philosophy (physical science) and moral philosophy were established, from which political economy, social sciences, economics, political science, psychology, mathematics, astronomy, and medicine (notably chairs in biology and chemistry) appeared; extension programs, as a response to the increasing professionalization of occupations in applied fields such as agriculture, business, engineering, and home economics were added; All these led to the professors' endeavors in nation building, national culture process via conducting research, contribution to providing service to society, the economy and culture around the globe.
The third task of the universities emerged with post-industrial society, originated from changes in the economy, technology, occupational system, an economy dominated by goods production to an economy dominated by services, the rise to pre-eminence of the professional and technical class, appearance of knowledge workers in creating and commercializing new ideas via research parks, especially in biotech, nanotech, while theoretical knowledge becoming central to innovation and to policy formation.

Commercialization of knowledge becomes the fourth fundamental task of universities, joining teaching, research, and service, emphasizing transition from "Elite to Mass Higher Education". The institutions are still preparing elites, but a much broader range of elites that includes the part of long life learning in the leading strata of all technical and economic organizations of society, providing equality of opportunity for adults, part-time study, and distance education, which entails family or personal income not be a barrier to participation. Effectually, institutional autonomy entails escaping the distortions, which can arise when there is concern with what the

government wants to hear and ends in greater, deeper, and much profound tendency to free enquiry or research mission.

Hence, the emphasis expands its mission from the shaping of character to the transmission of skills for more specific technical elite roles." The fourth mission of the university is to be home to professional schools, whose educational functions are anomalous: the arts of curriculum assigned to knowledge for its own sake to preserve independence and resist connection to the labor market, whereas the profession curriculum, influenced by external practitioners, rejoices to knowledge in application as well as the labor market, whose graduates have many of the characteristics of a profession like faculties of education with an obligation of concern for the client's interest and the public interest; they recognize the importance of apprenticeship and practical experience in developing professional competence, although not the self-regulating powers of a professional association to improve both quality of life and living standards, better jobs, higher salaries, lower unemployment rate, faster promotion, not to mention a certain measure of social prestige. Such schools also tend to satisfy an increased vocational orientation of students, increasing tuition fees, and increased reliance on external contracts and gifts, while universities as well as academicians all again dream of new revenues from patents, which they will own.

Universities will be increasingly tasked with fostering entrepreneurship & innovation, encouraged to generate revenues from research produced on campus, and contributes to local economic growth; in the next step, universities will be increasingly patenting research with commercial potential and subsequently seeking to increase their licensing revenues. At the same time, universities will create incubator facilities to assist faculty members, university graduates, community members, or other parties to start new firms that not only contribute to local economic growth, but also generate income for the university, which often holds equity positions in the incubator's tenant firms. Business incubators are organizations that help aspiring entrepreneurs translate ideas into profitable ventures. In effect, University incubators, like other technology business incubators, are commonly seen as effectual mechanisms for translating academic research into commercially useful innovations and value adding start-up companies. Most of the existing literature on incubators looks at an incubator's outputs, not the change in the university's overall innovative performance before and after an incubator is set up. Incubators typically provide office space, consulting services, assistance in finding suppliers and distributors, access to venture capitalists and business angels, and sometimes direct financial support. (Bulut Moschini, 2009) Subsequently, scarce university resources such as funds & dedicated personnel will be assigned to the startups to create more patented inventions, devoting enthusiastic personnel for patent issuing procedures and auxiliary services to startups, directing

significant investments for research equipment that can be used not only by university faculty and staff, but just by incubator tenants. The by-product of which will be extension of commercialized mission in form of new incubators.

The conception of incubation facilities recovers the quality and economic value of university patents by facilitating knowledge & university patents in form of university-academia collaboration, which articulate the commercial value of their inventions; then, they help generating ideas to university inventors that lead to valuable patents, which flows between academic inventors and market participants. Carlson, (2000) & Guy, (2013) refer to this university patenting as the interest is explicable since patenting and incubation are two prime means for universities to realize their new roles of generating economic growth and securing income, especially when these two means compete for similar purposes.

Some scholars like Kolympiris (2017) have questioned the efficacy of such commercialized incubators. They believe that universities establish incubators. Using the presence of incubators at peer institutions as an instrument; and establishing a university-affiliated incubator will be followed by a reduction in the quality of university innovations, which steadily ends in a reduction of licensing income following the establishment of an incubator, while the quality of university innovations, measured with patents drops. Based on such a speculation, university incubators drain resources from other university efforts to generate innovations with commercial relevance and the effects of incubators extend to the overall innovation performance of the university. Accordingly, even if incubators generate useful and commercializable knowledge, they may compete with other university programs that also attempt to foster innovation and generate revenue. To be clear, research results do not imply that incubators destroy value, as university incubators serve many purposes, educational as well as commercial ones. It follows that measuring the net economic effect of incubators is challenging because besides the effects on innovation efforts, the presence of an incubator may attract particular kinds of faculty and students, enhance the prestige of the university, generate economic multiplier effects, and benefit the community as a whole; note to say that *not all innovations are patentable, and not all patentable ideas are innovative*; some research results imply that university incubators may not generate net benefits for campus innovation, which are imperative findings for university administrators, policy makers, and remaining stakeholders who hunt for promoting innovation via the commercialization of academic research. Although findings also have implications for innovation research, the literatures on incubators and academic patenting have, for the most part, developed independently; they suggest that universities' incubators compete for resources with technology transfer offices as well as other campus programs and activities, such that the useful outputs they generate can

be partially offset by reductions in innovation elsewhere. In other words, not only do university attempts to encourage innovation and entrepreneurship by incubating businesses seem to reduce the quality of subsequent scientific and technical innovations, but they also appear to reduce the income generated by innovative activities.

According to Etzkowitz et al, (2000); Youtie & Shapira, (2008), universities train scientists and engineers, partner with established and emerging technology firms, and extend their own in-house technologies. The aspiration to increase universities' applied research outputs and give them a stronger role in the innovative process has already led some policy makers to describe local economic development as a *"fourth mission"* of the public research university, along with research, teaching, and service. But from a resource-based or capabilities perspective, the establishment of an incubator will have a constructive net impact on university innovation if it leverages resources and capabilities that are not fully exploited by the university's other innovative activities such as research facilities, personnel and the technology transfer office. (Lockett et al., 2005) Incubators, likewise, can be costly to establish and maintain but qualitative work can shed new light on the upshot of academic entrepreneurs on the relationship between incubators and patent quality. More generally, a fruitful avenue for future work would be to use the university as the unit of analysis and try to decide how a given university should direct the marginal revenue to promote innovation (or other outputs)—to the incubator, the tech transfer office, laboratories, personnel, or academic programs. Buildings must be constructed or expanded and operated, personnel and operating funds must be allocated, faculty time is needed, etc. These resources could also be devoted to other campus organizations and activities that encourage innovation, such as research facilities and personnel, training, and the technology transfer office. If the opportunity cost of devoting these resources to an incubator outweighs the benefits from incubation, the net effect of the incubator on university-based innovation will be negative. (Thursby & Thursby, 2007: 622) University incubators do not maintain (or at least will not share) lists of patents they claim as incubator related and, even so, it would be difficult to establish a reliable definition across incubators of what counts as incubator involvement. Conceivably qualitative research looking separately at incubator- and non-incubator-affiliated patents would be useful. However, by and large, prestigious, research-intensive universities are more likely to establish incubators if their peers (actual or aspirational) are doing the same. Another drawback of the present research studies lie in the fact that they have exclusively focused on research intensive universities, and this may limit the generalizability of their findings to remaining institutions that also establish incubators but boost their innovative efforts not so much via encouraging in-house research but more so via alternative routes such

as the promotion of student entrepreneurship; hence, they do not discriminate different types of university incubators, e.g., treating life sciences-oriented incubators differently from engineering-focused incubators. However, virtual and student-oriented incubators specifically are excluded, so incubator samples are fairly homogeneous in any case.

On contrast, based on the Imam's commentary, usually when one thinks of universities in Iran, s/he generally first envisions the institutions of government – a representative assembly, political parties, and elections. One thinks of choice between political parties and between party platforms. Consequently, Iranian universities, in the Imam's commentary" seem to become noncompliant & unresponsive to new realities and the Islamic Republic regime's priorities; academicians have also disregarded undergraduate teaching in favor of their role in cultural appraisal and economic resilience research; their information has become fragmented, enigmatic and unconnected to the needs of students as well as those of the society; Parents formerly took universities as a place where their children go to prepare for a job, which would have been the focus of instruction, but now they are losing confidence. In contrast, universities must find ways to maintain the most appreciated aspects of their nucleus task, discover new ways to respond robustly to the opportunities of the rapidly growing world change; they should respond to the task of commitment to knowledge for its own sake, to the unbiased free inquiry, but undertake the vital tasks for the governmental system, which place them at the heart of society. Universities as conscience of society should also balance their traditional mission and social changes in the country's culture, economy, and health care of the present age.

Accordingly, one needs to bear in mind that university education relies on the success of primary and secondary education. A university education is less plainly about temperament formation; "*although learning how to think vigilantly and critically about political problems, to articulate one's views and support them before people with whom one disagrees is a form of ethical education to which young adults are more sympathetic and for which universities are well suited."* The university needs to prolong the process of building independent character, but the primary autonomous purpose of a university is defense against the independent tyranny of ideas in academic ecology, consistent with the nature of the services they provide, the efficient use of national resources, the national interest and the demands of accountability.

Success in universities, as conscience of society, lies at the heart of universities having certain essential characteristics, which reiterate the long-established nature of universities like being predominantly concerned with more advanced learning, the prime aim being to develop intellectual independence, while their research and teaching are closely interdependent, founded upon inquisitiveness along with tolerance rather than advocacy or prejudice and most of their teaching is done by people who are

active in advancing knowledge, fulfilling international standards of research and teaching, being repositories of knowledge and expertise, rather than giving up the quest of truth for the pursuit of celebrity.

Based on the Imam's speculation, the fourth sub-mission of the universities is to keep away from partisanship. It might be that social criticism, like participation in partisan politics, spoils the habits of good scholarship. The university's obligation, as an institution, is to remain unbiased; its autonomy is at risk when activists demand that the university as an institution take explicit political stances. The university is basically a place of advancement and dissemination of knowledge, a place of research & teaching. Universities are the nucleus of society's research enterprise, the source of innovation and ideas. New knowledge is disseminated in the classroom through the teaching of undergraduate and graduate students, through continuing education, and through the publication of research. The danger needs to be taken into account and avert governments' shifting from supporting basic research toward supporting applied research and asking that commercialization of research become a fundamental responsibility of universities, although modern universities have a multitude of functions, often conflicting and always with shifting emphasis. Undoubtedly, the economic mission of the university will prosper and the autonomous mission will shrivel; hence, it is obviously in the selfish interests of fake professors and unsupportive roles of the university to speak overtly about the research enterprise, to engage the public imagination with the process and to explain the findings in language accessible to the inquisitive educated public.

The Iranian miniseries of education, research, science & technology need to be a better appreciative that universities need structural changes as exemplars of creative & innovative thinking as well as long-established traditions and ways of teaching and research; then they practice how universities could encourage the growth of technology-based new ventures for designing policies and infrastructures to promote entrepreneurship in forms of incubators in academic settings. Consequently, this structural change will bring new ways of tackling some of society's toughest challenges in job creation, health, education, economic development, poverty, water, energy, environment, food/nutrition, technology, and agriculture. Then the university alumni will have the potentiality to transform research know-how into a commercial product/service that can be sold in the marketplace. Sound solution for unemployment crisis among higher education graduates and powerful engine for knowledge based development as well as building the knowledge based economy in Iran will be in the hands of Knowledge Based Entrepreneurship Ecosystem (KBEE) as the key to new job formation. Universities have vital role in this ecosystem. Unfortunately, often provinces of Iran do not have most of KBEE elements. Almost all of Iran's provinces are devoid of

knowledge-based industrial parks; some of them have not Science and Technology Park, appropriate infrastructure and info structure, enough funds and resources, openness markets and supportive business environment. Most important of all, entrepreneurial universities have not yet been created in Iran's provinces. As a result, they do not have adequate human capital, beneficial innovation capital, and intransitive social capital. Thus, knowledge-based entrepreneurs, knowledge-based entrepreneurial capacity and knowledge-based entrepreneurship opportunities have not already developed in Iran's provinces. Disappointedly, the present governmental actors in Iran do not seem to care for KBEE, with little motivation to feature an entrepreneurship ecosystem nor a distinct political agenda to promote entrepreneurship. Neither attempt is made to direct education, especially tertiary one to develop entrepreneurship and technological learning in level of individual and organization, not incentive schemes have been triggered for scientific staff to encourage more technology transfer activities, through the involvement of private investments in order to exploit the full growth potential of new ventures to reduce the stigma of failure to enhance the appreciation of entrepreneurial activity in the society. This is while the Imam of Islamic Republic has already called for the need of a change in form of Economic Resilience.

It needs to be taken into account that based on a survey performed by Techcrunch, (2014) companies formed by MIT graduates in the USA as the true seedbeds of new ventures have created multiple new ventures; 900 new ventures were typically started per year while these still-living companies' combined annual revenues have reached $2 trillion across 25800 companies that employ 3.3 million people. Furthermore, in Europe, the number of new ventures created is growing.

Although some critics have referred to this new mission of the universities in that having too much of a commercial orientation would jeopardize the university as an independent knowledge creator, which can trigger conflicts of interest, research studies in the field attests that the such incubators are not substitute but rather reinforce other former missions and it is associated with higher scientific productivity, which strengthen, industry collaboration via this core mission. (Van Looy et al, 2011) Recent survey performed by "The Business Journals (2013)" is indicative of the success of 10 such incubators in their performance of boosting job creation capability, booming economy, leveraging the stance of graduated companies, leading to 1256 jobs, raising more than $145 million in the US capital with a local impact of $352 million and the figure is projected to be $719.8 million by 2015. This promising future demonstrates that investments of public money in universities can lead to direct economic benefits in terms of new business activity at global level. The marginal benefits behind such incubators is said to be their potency in encouraging technology transfer mechanism & facilitating the dissemination of university research that convert the latest scientific

knowledge into application in societies. Thus, as Colombo et al, (2010) predicted academic rigor in concordance with commercialization of ideas & dreams turn to economic impacts of research-based spins-offs, which lead to productivity & significant returns over longer period of time. Such a mission in new universities with the motto of invention, innovation & entrepreneurship entails many Big Apps and Next Idea competitions/hackathons features including entrepreneurially-minded faculty & students, business incubators, innovation labs and technology transfer offices- TTOs- which later affect human, social or other resources and how universities can promote new ventures in form of patents filed, startups incubated, jobs created, product/service licensing income upheld and finally capital raised.

Vigorously, it needs to keep in mind that start-up companies are defined as newly founded companies or entrepreneurial ventures that are in the phase of development and market research. They are usually, but not necessarily, associated with high-tech or technology-oriented projects because their product is mostly software, which can be easily produced or reproduced and enjoy, by their very nature, the greatest potential of growth. (Klačmer Čalopa, 2014) Such start-ups are reported to undergo three stages of development: 1) the first stage is the Problem/Solution Fit in order to: align the solution to the associated problem, see if the start-up wants to develop something that the customers/users need or something they will essentially use and whether they are willing to pay for it, and lastly whether the problem can be solved at all. 2) Product/Market Fit, which has to answer the question of whether the implemented proposal is really what the users need. It is also indispensable to inspect the existence of the problem, the purpose of solving the problem and the possibility of building a prototype or a partial solution or analyze different metrics to determine the extent to which the new product addresses specific customer issues. 3) Scale, which involves the expansion and growth of the start-up companies. This leads to an increase in the number of employees, to an increased market shares or to higher income. The ideal time for fundraising is after phase two (*Product/Market Fit*), or once the market has been tested to see the potential for future start-up growth (scaling follows in the third stage). After the second phase, the start-up's founders as well as potential investors have the same goal- the expansion of the business. (Maurya, 2012)

Other start-ups development classifications refer to: 1) discovery, whose aim is to perceive the market; 2) validation, with the aim of checking the users' satisfaction; 3) efficiency, to increase users; 4) scale, which adds to the former phase; 5) profit maximization and 6) start ups' renewal or decline. (ibid)

The US modeling of start-ups includes: 1) the Automizer, with the sub type of social transformer, both of which create new ways to connect new users & therefore need more capital in IT-oriented cyber space; 2) the Integrator, characterized by high

security, early profit, targeting small and medium-sized enterprises as well as smaller markets, high probability that it will keep small teams even after scaling (growth and expansion); 3) the Challenger, search in need of more capital or business-oriented teams. Seed accelerators, Seedcamps or Bootcamps, representing an opportunity for all start-up companies and teams, who are willing to: learn, succeed in the start-up world, and offer financial injections as well as mentoring, which are reported to be among the top best accelerators. They will rely on a type of funding in form of collecting donations for charities and interesting projects in general. (ibid)

According to Rao & Mulloth, (2017) the likelihood of university spin-offs success is related to certain parameters, chief among which are researchers' having access to: financial resources from grants and university–industry partnership programs, more intellectual property assets, knowledge assets in the fields of computer sciences and engineering rather than in other natural sciences, knowledge expertise in consulting, higher social capital assets, resources of large research universities, resources of large laboratories, many years of experience in research, spin-offs ecosystem and the last kernel but not the least one will be the needs to mastery of ELF- English as a lingua franca.

3.19 In Support Of Educational/Academic Institutions' New Mission

A drastic and dramatic change is needed to materialize the Economic Resilience alteration. But the basis of this transformation should be the center of jobless, unemployed creation institutions. No doubt, virtually 60% of the jobless in the country start the dilemma when they are just schools students, who later turn into college undergraduates, the alumni and jobless again. Students need to be familiarized with the following well-established schema and curriculum developers should concentrate on the order of the schema:

3.20 Imagination power → Idea creation → Research studies → Knowledge-based ventures

According to Dennis Coon (2004), history is full of cases where dreams have been a conduit to creativity and discovery. A conspicuous illustration is provided by Dr. Otto Loewi, a pharmacologist and winner of a Nobel Prize. Loewi had spent years studying the chemical transmission of nerve impulses. A tremendous advance in his research came when he dreamed of an experiment three nights in a row. The first 2 nights he woke up and scribbled the experiment on a pad. But the next morning, he couldn't tell what the notes meant. On the third night, he got up after having the dream. This time, in preference to making notes he went straight to his laboratory and performed the

decisive experimentation. Loewi later said that if the experiment had transpired to him while awake he would have rejected it.

Loewi's experimentation gives some insight into using dreams to generate creative solutions. Self-consciousness is reduced during dreaming, which may be especially constructive in solving problems that entail a fresh point of view.

Being able to take advantage of dreams for problem solving is improved if one "set" her/himself before self-effacing. Before one goes to bed, she/he needs to strive to think intently about a problem one wishes to solve. Hence, she/he needs to steep oneself in the problem by stating it clearly and reviewing all relevant information. Then one needs to use the suggestions listed in the previous section to catch her/his dreams.

Although this method is not guaranteed to produce a novel solution or a new insight, definitely, it will be adventurous. About half of a group of college students using the method for 1 week recalled a dream that helped them solve a personal problem. This will be the starting point to trigger knowledge-based Economic Resilience. Educational institutions in general and academic ones, in particular, should take it as the primary purpose of their carrier.

Entezari (2015) has identified six actors and eleven factors to that end. In his exploratory study, relying on the experts' commentaries in the field, he enumerates actors as: academic entrepreneurs, entrepreneurial universities, science & technology parks, knowledge-based industrial parks, financial institutions and government; factors include: entrepreneurship opportunity, entrepreneurial capacity, technological learning, entrepreneurial culture, innovation capital, human capital, social capital, knowledge production, and infrastructure as well as info structure along with university-company interactions.

Entrepreneurship, as the key tenure, is reported to be redefined as a process of exploiting opportunities that exist in the environment, converting ideas (which may arise from R&D activities) into successful businesses and creating value through innovation. Undoubtedly, companies in innovative sectors or knowledge spillovers represent key sources of opportunities in fostering entrepreneurship and innovative activity, which tend to choose locations where significant knowledge-generating activities associated with these sectors occur and such activities may be performed by universities or other firms that imply the presence of world class scientific research and human capital. Universities can generate positive externalities through both the performance of knowledge-generating R&D activities and the education of specialized human capital, capable of absorbing such knowledge. Fresh graduates, already familiarized with spin-off start-ups may be key channels for disseminating the latest knowledge from academia to the local high tech industry.

He also speculates that key player & focal, launching supporter will be the government, as the driving force, and the education as well as research, science, technology ministers are the two wings. Among these actors, scholars, qualified researchers, scientists and in general the entrepreneurial universities are expected to trigger their incubator functions.

The author also reflects on five basic challenges' which are impediment, including: 1) Lack of a coherent communication network between players and entrepreneurs; 2) Absence of information about successful entrepreneurship stories; 3) Large number of policy making institutes; 4) Inefficient entrepreneurship education; and 5) Inability to identify the real entrepreneurs. (ibid)

According to the academic entrepreneurship literature, collective learning theories view the university essential to the knowledge creation process, relying on either of the two approaches: the former focuses on the commercialization of knowledge and research findings through their TTOS- technology transfer offices, incubators, entrepreneurship centers, and internal seed funds via patenting, licensing, startup creation, and university–industry partnerships. (Roessner et al. 2013); and the latter refers to entrepreneurship courses as integral parts & parcels of the university's teaching curriculum and mission. (Mulloth, 2017)

Universities worldwide are progressively more viewed as settings, which enhance & support the growth of tech-based new ventures by stimulating entrepreneurship and economic expansion. All developed academic circles have shifted their curriculum to make business schools ramp up entrepreneurship programming, as students pursue dreams of profitable innovation, and startup glory (Baron, 2015); Hence, as Küttim et al, (2014) reports a sense of initiative and entrepreneurship, which have become widely viewed as key competences necessary for all students regardless of their specialty. Some universities around the globe have abstained from the third mission for certain reasons.

3.21 Spin-Offs' Ecosystem

Isenberg (2011) reflects on factors effective to the success of entrepreneurship ecosystem. Among policy, finance, culture, supports, human capital and markets, the key factor to sustainable entrepreneurship is speculated to lie at the heart of specific combinations of the elements in an entrepreneurial ecosystem.

Vogel (2014) has defined entrepreneurship ecosystems as "*dynamic and interactive communities within a geographic region, composed of varied and inter-dependent actors (e.g. entrepreneurs, institutions and organizations) and factors (e.g. markets, regulatory framework, support setting, entrepreneurial culture), which evolves over time and whose actors and factors coexist and interact to promote new venture creation.*" To that end, knowledge-based

entrepreneurship ecosystem represents a core interface between two interdependent systems: the knowledge generation and knowledge diffusion system on the one hand, and the productive system on the other (Caloghirou et al., 2014). Major universities are catalysts & cultural support while a university-based entrepreneurial ecosystem is defined as "*multidimensional enterprises that support entrepreneurship development through a variety of initiatives related to teaching, research and outreach*". (Greene et al., 2010) Optimal strategies are needed to take theoretical and practical aspects into account. Main strategy of entrepreneurial university is to increase patenting, creating and patenting innovative ideas and spin-offs activities, which positively correlate with human capital, innovation & social capital, scientific novelty of research outcomes and successful registration of new patents. Hence, entrepreneurial university and knowledge-intensive entrepreneur attempt to develop their entrepreneurial capacity to create or discover knowledge-based entrepreneurial opportunities.

Corrupted and unsupportive business environments are reported to be the major driving barrier to entrepreneurship. Raeesi et al. (2013) in his theoretical interpretive structural modeling- (ISM), Entezari reflects on Warfield (1974) framework to crystallize interactions between actors and factors. Hence, he enumerates seventeen factors and their related actors as: 1) Creating Entrepreneurial University, a university, as an incubator, supports the entrepreneurial ecosystems in many ways: develop and motivate knowledge-based entrepreneurs, extends innovation, human and social capital, producing knowledge; 2) Building Knowledge-based industrial park or place for professional and supporting services. The industrial park will cater to the specific needs of information technology, media, R&D- research and development, gems, jewellery and business services; 3) Building Science and Technology Park to facilitate the creation and expansion of new technology-based companies and knowledge transfer from universities to companies; 4) Governance Creation, which is partly about how governments & other social organizations interact, how they relate to citizens, and how decisions are taken in a complex world; 5) Developing universities-companies interactions to smooth the progress of interactions between Entrepreneurial University, Academic Entrepreneurs, Science and Technology Park, Knowledge-based industrial park, Knowledge-based Firms, Government and Financial Institutions. The interaction between universities and companies is established through precise channels such as: 1) cooperation through outsourced R&D projects or applied research consortiums and research joint-ventures, 2) the development of spinoff companies and 3) transfer of Intellectual Property Rights (IPR), including patenting and licensing (Bercovitz & Feldman 2006). Informal access to facilities such as Science and Technology Park and Knowledge-based Industrial Park tends to increase the number of spin-offs generated by a university; 6) Developing Infra/Info structures, which is defined through tangible

elements of the regional infrastructure, for example through ways and possibilities of transport or the range of available office space, flats or other realty as well as information/communication technology; 7) Developing Market openness/competitiveness, the extent to which commercial arrangements experience steady adjustment and redeployment as new growing firms compete to replace existing suppliers, subcontractors along with consultants, consisting of networks and early customers; 8) Developing Human Capital, while appropriate technical/practical skills, knowledge embodied in labor technical/vocational education, business education, entrepreneurial training programs, accessibility of information, education, in general, provides knowledge; 9) Developing Social Capital, while trust-based professional networking with companies, governmental bodies and venture capital funds increases the likelihood that a researcher will choose an entrepreneurial career path; 10) Developing innovation capital. Innovation capital includes intellectual property such as patents, trademarks, copyrights, and intangible assets. Intellectual properties protect commercial rights such as patents, trade secrets, copyrights and trademarks; 11) Creating Entrepreneurial Culture given that an entrepreneurial culture is a cultural environment, where someone is motivated to be a real actor; 12) Financial Supports arise in forms of: Venture capital, Alternative sources of financing, Low-cost loans, Willingness of financial institutions to finance small entrepreneurs, Own financing sources, Public subsidies, Private investors, Equity offerings, innovating, creating, risk taking, Entrepreneurial Success Stories, Respect to capitalist and social norms; 13) Developing Entrepreneurial Tendency among Academician. Scientists become entrepreneurs by developing new products and starting their own companies to market. Scientists also need to develop their entrepreneurial capacity by entrepreneurial & technological learning through appropriate technical and engineering education, learning by doing and market experience, using device, interaction with knowledge-based firms; 14) Technological learning. Observing the example of successful entrepreneurs inspires other researchers to reflect on the possibility of developing their own ventures. Exposure to different ideas, mindsets, beliefs and ways of life, shape a reference framework that supports the identification of business opportunities and their development and human capital, social capital and entrepreneurial culture will be the outcomes of educational system; 15) Knowledge production in form of developing and providing new knowledge, research & development; 16) Knowledge-based Entrepreneurship. Capability of Entrepreneurial capacity comprise motivation and entrepreneurial attribute; 17) Knowledge-based Entrepreneurship Opportunity, which refers both to existence and perception of market opportunities available for exploitation.

4. Qualitative Research Questions

Powers & McDougall, (2005) take it as truism that knowledge-based start-ups/spin-offs do not operate in isolation but all these twenty parameters are interactively interrelated in a sense that one affects the other and each parameter is affected by all the others. Hence, knowledge flows and learning as the by-product of education & curriculum in the new mission prompt an increase in innovative capabilities, including tacit knowledge. The opposite is equiprobable in a sense that showcase, less valuable efforts may destroy the mission to let it fall with related diversifications. The present research turns to new data to inspect the net effect of collaboration among interrelated parameters or the variables to measure the degree of success in this theorizing model. The alternative hypothesis is that parameters do not work in tandem, but work against each other, in which case a negative rapport between the variables prevents them to respond, other things being equal. Consequently,

RQ1: Do these twenty variables, altogether, work in tandem?

Unlike critics' disorientation toward universities as independent knowledge producers on the pretext that the present universities are equipped with academic research and not institutions to play the twofold roles of academic rigor as well as venture commercialization, basic science needs to shift toward the tendency for societal needs while universities need to satisfy these needs. (Küttim et al., 2014) Commercializing academic research is not a substitute to academic life but rather the only workable option to reinforce collaborative venture creation as an apparatus to facilitate academic research dissemination; empirical research studies are not in favor of brain drain via the new academic circles' mission for spending time, effort and money as well. (Colombo et al., 2010) Consequently, such entrepreneurship education via the voice of "Resistive Economy" is overemphasized by the Imam as well as all the politicians in power.

RQ2: Should universities' fourth mission be overlapped with "Economic Resilience" in favor of the alumni?

According to George Fallis, (2004), Universities' autonomy implies researcher academicians focusing on academic sovereignty in their dynamic teaching to produce professional competence in one specific area, doing research in addition to renovating domestic potentialities into dynamism while strengthening national culture & nationwide identity, disseminating professional education with emphasis on shifting university to hospital-like research, fulfilling the requirements of the unpredictable real societal needs, educating self-regulating professions, responding enthusiastically to the opportunities of the swiftly changing world, contributing to robust native industrialization and national development, highlighting international academic

orientation for competition, altering the national goods production economy to international business service or advanced knowledge worker dominated one,

RQ3: Will academicians' full autonomy in their carriers result in materialization of the "Economic Resilience"?

Briguglio, (2008) has identified definite scenarios to diminish the negative effects of external shocks, including: high degrees of economic openness by participating more actively in international trade, which would expose that country to higher degree of irrepressible shock; narrow range of export concentration, which once more gives rise to risks associated with diversification deficiency; and dependence on strategic imports, the availability & costs of which would expose that country to unprecedented shocks. The alternative scenario is economic resilience with its specific attributes, i.e. flexibility of an economy; shock absorption via flexible, multi-skilled labor force to shift resources swiftly to other sectors enjoying stronger demand;

RQ4: Is shock-counteraction for recovery via Economic Resilience predictable?

Farrugia, (2007) founds general desirable criteria to objectify construction indices based on conceptual and methodological aspects associated with economic resilience and its measurement, related to appropriate coverage, simplicity, comprehensibility, affordability, suitability for international comparisons, transparency and specific ones as macroeconomic stability- standardized as a ratio to GDP and external debt-to-GDP ratio; sum of unemployment and inflation rates- known as economic misery index & inclusion of the external debt-to-GDP ratio; microeconomic market efficiency by removing bureaucratic procedures & activities, which limit competition, retard entry into business, increase the cost of production, hinder prices to be market-determined, reward some businesses at the expense of others, encourage government meddling to extract financial payments, discourage private sector involvement; good governance for attending to issues such as rule of law and security of property rights; and social development with emphasis on educational advancement, health & life expectancy at birth, housing indicators, managing environmental events like earthquakes and floods to curtail repercussions on the economy and society. Consequently:

RQ5; Can Economic Resilience construction be made objectively?

The empirical model stipulated to test theses five competing research questions is as follows:

5. Methodology

5.1 Method

In line with Barney Glaser's G-Theory, right after a deep scrutiny into the related literature, an open-ended questionnaire with 20 items was designed for testing

hypothetical constructs & research questions. The questionnaire as well as the literature was disseminated via LINKED IN to all of those, who have published related papers. They were invited to respond, comment, rewrite the order & the parameters included. A copy of the questionnaire appears in the appendix.

6. Results & Discussion

Commentaries & comments are reported successively to be hindrances to Economic resilience. They are based on observations collected form the respondents to the questionnaire. Illustration1 in appendix 2 introduces Economic Resilience Deterrent factors.

Based on the same Commentaries & comments, everybody was in favor of Briguglio, et al (2008) Economic resilience components, but with a new order of shock absorbance as emerges in Illustration 2, Economic Resilience module. And Illustration 3 concentrates on basic Pie Module to show Research Questions Relatedness.

7. Conclusion

Illustrations 1, 2, 3 hold up the first research question that the issues raised work in tandem. Three other four research questions can be deduced implicitly that in a rent/bribery-based economic system, real losers are academicians in general and the alumini in particular, if they are supervised inefficiently.

According to IMF, (2006) annual report, the top right function in the module-microeconomic market efficiency- exchange rates constraints in the hands of the governments is used as an index of Economic Resilience ineffectiveness, the inefficiency of which affects intellectual property rights basis.

Something is crystal clear: More than $8,000,000,000 has been expended for the country's economic recovery within an eight-year period of time but in vain, which means there have been no effective measures of the inputs to economic success. The size of the expenditure can be easily measured but disaggregate academic expenditures on faculty members, research facilities & other resources devoted to other academic pursuits cannot be measured, alerted by the Imam as checks & balanced. Including additional measures of university quality such as the number of faculty awards, the number of academicians' or faculty membership in the Academy of Science as well as the size of scholarly published papers cannot be efficient dependent indices or variables. This is interpreted as an inefficacy & altered form. The proxy to all these corruptions tends to be necessarily objectifying Economic Resilience principles & parameters. Hence, the core unit of analysis has been the alumni' success in the

employment market. This can be cyclical as the output of the academic circles; technology transfer offices in the country's industries, patenting & innovative endeavors.

Secondly, to account for such an enquiry, dummy variables such as BOITECH, ICT, GREEN JOBS, HOME-GROWN PRODUCTIVITY, AGRO-INDUSTRIES, which have immediate commercial applications, built on diverse knowledge basis, were included in the survey. But there was no negligible effect in economic recovery.

Economic Resilience is associated with certain concepts such as innovation & creative thinking, technologization, microenterpreunership, knowledge creation, informationalism, the vehicle of which will be ELF; but the hegemonic effect of English as a dominant language in other branches rather than knowledge creation and science-based entrepreneurship needs to be minimized to make English just a lingua franca, emphasing its instrumental orientations & carrier advancements through critical reappraisal attitudes toward English-speaking culture, which can be an increase in ethnic, racial, religious, and national consciousness. (Green, 2011) Concentration on source language arts, novels, plays and music productions or emotive domains in the mother tongue seem to be effective in order not to lose identity or devalue native cultural values. One part of the process should be investigated by further researches but the main course lies in the hands of the Imam & his fellow jurisprudents to seek gateways to make certain Halal boundaries with the aim of making them effective, workable, and feasible to the best.

8. Concluding Contemplations

The present research paper has tried to concentrate on hypothetical & conceptual constructs of Economic Resilience to make it a practical scheme. Twenty Principles & parameters are delineated by outstanding experts in the field. The results of the scheme are expected to provide a chance to witness its success. Checks & balances in the agenda will be decided by the Imam to that end; hence, its religious background makes it a thriving scaffold.

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Appendix I: An open-ended questionnaire on principles & Parameters of Economic Resilience, Based on G-Theory model of Speculation

Row	Principles & Parameters	Sorting	Reviewing	Rewriting	Comment
1	Economic Resilience Definition				
2	Education & Curriculum In The Economic Resilience				
3	The Future Of Employment				
4	ICT In The Future Market				
5	Informationalism As The Key Denominator				
6	ELF Role In The Agenda				
7	Globalization As The Next Trait				
8	Resistance Against Americanization, One-Sidedly & Linguistic Hegemony				
9	Innovation In Micro Entrepreneurship				
10	Creativity, Critical Thinking As The Route				
11	Academic Commercialization Of Patents Models				
12	Patent As An Award To Invention				
13	Startup Firms In Microenterpreunership Job Creation				
14	Agriculture, Food Sciences & Technologization				
15	Home-Grown Jobs				
16	Green Jobs				
17	Neoliberalism, A Misconception Against Economic Resilience				
18	Missions Of The Universities In General & Their New Mission				
19	In Support Of Educational/Academic Institutions' New Mission				
20	Spin-Offs' Ecosystem				

Appendix II

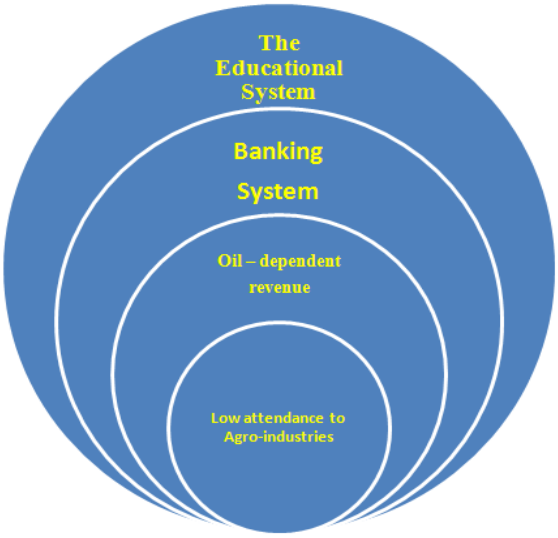

Illustration 1: Economic Resilience Deterrent Factors

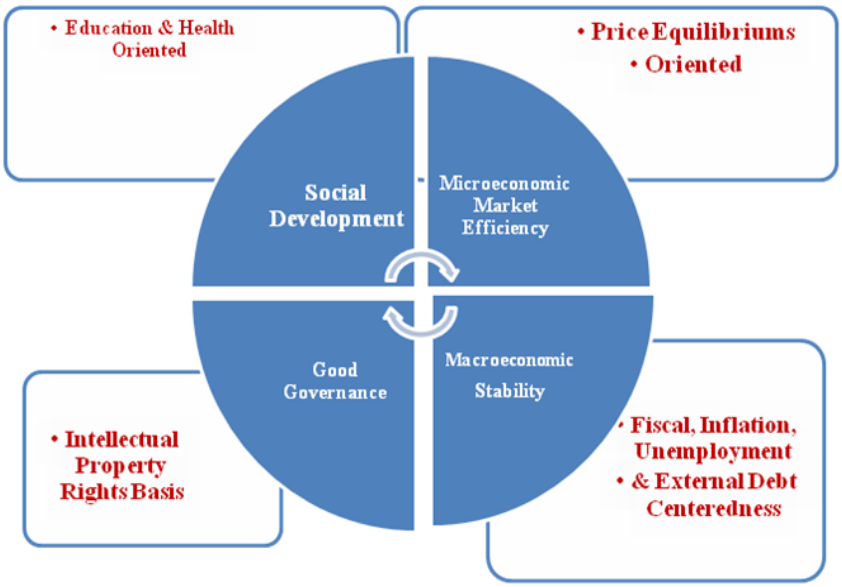

Illustration 2: Economic Resilience module

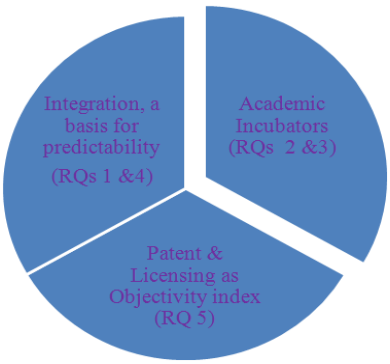

Illustration 3: Basic Pie module to show Research Questions Relatedness