Strategies for Corporate Global Expansion of Pakistani Companies in the Age of Technology

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ABSTRACT

This study intends to meticulously probe about the applications of cutting-edge strategies of globally expanding companies operative in several industrial sectors of Pakistan. Many companies craft and execute various strategies to globalize their operations and networks in several continents, which can not only benefit them but add value in the domestic cum global economy. Many researchers expounded that along with many other factors, capacity-building and competitive edges of business provide these companies the competitive strengths to excel in their global operations. Regarding such strengths, advancement in technology inclusive of R&D (Research & Development), research in business and marketing and business research, process design, automation, and e-commerce play a decisive role in providing them the core competitive edges that they leverage to advance their growth and expansion in the global market.

This paper employs hybrid research techniques including qualitative and quantitative research. Semi-structured interviews have been taken for qualitative enquiry and structured survey has been undertaken for quantitative enquiry. The samples are drawn from multiple populations pertaining top-five export sectors of Pakistan by applying convenience sampling procedures for interviews and proportionate stratified sampling articulated with systematic sampling for survey. The findings uncover that after turning as retrenched domestic entities, many of the companies in Pakistan prefer global expansion. They usually resume from export operations in various countries especially where they develop a network of business associates, and then gradually move to open subsidiaries abroad. They avail technological edges to upgrade their processes, plants, products, and apply modern tools of management, but in the context of Pakistan, overall there is a dearth of technological up-gradation, modernization and breakthroughs, R&D, research in business, and marketing and business research in alien territories), automation, and e-commerce.

Key Words: Strategies for Corporate Global Expansion, Age of Technology.

1. INTRODUCTION

Engineering and technology have a direct nexus and profound effect on industrialization, developments in the domains of management (along with pertinent sub-domains), globalization, and quality of life. Advancement in businesses and technological breakthroughs led to mass production, economics of scale, inventions and innovations of new products, their models, features, varieties,

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modernization in transportation for availability of products, and their distribution around the world. The early managers who studied the work environment, processes, policies, motivation, incentives, and work-related human behavior cum workers' psychology inside organizations were engineers, psychologists, and sociologists who contributed to modern-day management sciences [1,2]. Continual R&D in the spheres of engineering and technology in various areas of work have led to cutting edge of technology, so-called the age of techno revolution.

The notion of globalization is used alternatively with internationalization (or international relations among countries), but indeed globalization sees the world as a single country (or borderless state), single global market, and global village. It upholds free flow of trade, investment or finance, technology, human resources and mobility cum migration of people to cultural exchanges. The most recognized proponents of globalization consist of WTO (World Trade Organization) to foster free trade; UN (United Nations) to uphold barrier-free trade and investment/finance, and bringing the nations closer to each other for peace and prosperity; WB (World Bank) to reconstruct the world institutions; IMF (International Monetary Fund) to assist nations with financial deficiencies; and many others [3,4]. Corporate globalization on the other hand is the extension of companies' operations across domestic borders as they trade and/or invest across the continents [3,5]. Companies usually opt among a variety of options including exporting and then fostering it through opening offices abroad, setting up outlets, sales, distribution, and marketing subsidiaries, branches or autonomous facilities abroad. Many opt for joint ventures or strategic alliances with overseas partners, mergers, takeovers, or acquisitions of renowned overseas brands, or find ways for franchising or licensing their products and business models. Pakistani companies in textile, leather, food, pharmaceutical, and software industries for instance, have similar operating modes abroad; however, evidences of their mergers, takeovers, or acquisitions of well-recognized brands in foreign markets have not been traced yet (by these authors). Based on technological initiatives, they have been capitalizing various strategies like supplying primary goods or commodities to value-added products, seeking outsourcing contracts for private labeling, leveraging e-commerce gateway to succeed, and automating of their production processes. Such strategies are further elucidated in the findings' section of this study. Regarding the particular case of Pakistan, in the wake of turning as retrenched businesses many companies decide to expand globally. Some examples include: Nishat Textile and Sitara Textile, AGP (Ali Gohar& Company Pakistan) and Zafa Pharmaceutical, National Foods and Shan Foods, HBL (Habib Bank Limited), NBP (National Bank of Pakistan), and UBL (United Bank Limited) [3].

As a consequence of domestic success, many well-established companies try their fate in the free and liberal global market economy. They strategize various ways to expand their business operations across continents. Their technical cum financial capacities and competitive edges (including technological edges like E-commerce capabilities, etc.) enable them to further their expansionary objectives. Their firm foothold in the global arena can turn beneficial for them and the domestic cum international economy. This study critically investigates the way Pakistani companies strategize to expand their global operations, the modes of entry to other vehicles employed in networking and fostering their businesses in unpredictable global environment.

2. MATERIALS AND METHOD

As discussed in the intro part, *corporate global expansion* is the process of growing and expanding a business beyond domestic boundary and doing trade and/or investment abroad [3,5]. Many companies resume their internationalization through exports. Regarding *choice of countries and modes of entries*, they begin as experimental exporters and mostly strive to transact in geographically close countries. In the wake of success, turn as experienced exporters and transact in geographically and psychologically distant countries as well. Then, some opt for other options or modes of entry ranging from establishing sales subsidiaries to overseas production facilities [6]. According to some researchers, the mindset of corporate executives lead them to corporate globalization, as they envisage the global markets as emerging grounds for their products. Companies having global mindset, globalize their capital base on the basis of building up their capabilities, competitive strengths, and resource network. This involves doing research about strange and unknown markets, exploring their potential, understanding the consumers, their culture, laws, competition, and other challenges, and initiating strategic rapport with overseas buyers, suppliers, and trade/business partners [7]. The next step is globalization of supply chain management (from procurement to distribution and transportation from international sources) that leads to globalization of market presence. The bottom line is that corporate globalization offers both, risks and returns [8].

Building *competitive strengths* appears to be a major challenge and vital strategy for every firm inclusive of global players. It requires devising capacity-building or competence-creation strategy. It may require revisiting the technical capacity planning, process redesign, and restructuring organizations. Companies explore existing resources, including factors of production, developing superior teams, cutting edge technology, state-of-the-art standards, quality benchmarks and processes, adding sources of finance, and so forth [9-11]. Competence-creation strategy is executed in all the subsidiaries, divisions, or units of a company, which enable them to outperform and attain desired goals [9,12,13]. Expansion of companies beyond domestic boundaries relies on building superior capabilities in their value chain systems, inclusive of upstream functions of R&D, product design and development, operations / manufacturing, finance, marketing, intellectual capital or HR (Human Resources), and ICT (Information and Communication Technology), and downstream functions of logistics, sales management, and customer support services [14]. On the other hand, born global companies (so-called dotcoms or net-centric companies) leverage their modern cum unique technological knowledge and competitive edges to enormously extend their overseas operations [15-19]. They enjoy marvelous potential to raise abundant financial resources from angel investors and venture capitalists, which pave their way for pursuit of their expansionary goals. Intensity of technology (or differentiated technical edge) plays the role of a juggernaut (i.e. uncontrollable force) to succeed them in extending their geographic coverage and conquering the global arena [16,19,20]. Technological supremacy leads to marvelous stimulus for their solid foothold in the world markets [21,22], and by adding extended value in their core functions or value chain activities, they stretch their customer base and geographic presence [23]. In the process of global expansion of firms, many researchers agree about the salience of networking or building relationships especially with buyers, suppliers, and channel partners [3].

2.1. Models of Strategic Planning for Global Expansion

Out of various paradigms on strategy development available in the extant literature, two selected models are illustrated here.

The simple but rationale model displayed in Table 1 is pertinent with global expansion strategy, which focuses on capacity building and sharing core capabilities throughout the web of operations, then attempting to do global network expansion, developing and managing global skills and resources, and eventually leveraging global learning and best practices to fortify competencies [24]. Globally expanding firms develop competences (knowledge, skills, expertise, know-how, etc.) in their network of operations and particularly in their functions or value chain to excel in R&D, manufacturing, marketing, and supply chain, etc. These companies also learn from their channel partners like vendors and distributors, customers, consultants, non-competing firms, and even rivals in some cases such as, they coordinate with them in events of chamber of commerce, trade forums, etc. on issues of mutual interests such as, sharing common problems like unjustified incremental taxes, irrational governmental policies, and so forth. Then they transfer those competences abroad to stretch their operative network. While stretching their network of operations, many of them seek the territories where the factor costs appear to be economical or the lowest. Factor costs of their interest comprise of land, labor (inclusive of executives), raw materials (and inputs like components, and services), and capital. All around the world, they search for lower cost of capital and tax heavens or subsidies cum incentives for foreign investors or businesses. They conduct detailed studies to learn about behavior and potential of novel markets and do technical cum financial viability reports before going global. Global players exploit the age of technology and economically integrated world for acquiring the desired resources. Many of them established their subsidiaries in Japan to tap lucrative market opportunities and enable them to comprehend and apply several Japanese management techniques, which became a magnificent source of inspiration worldwide. Some of these techniques include TQM (Total Quality Management), quality circles, just-in-time inventory system, zero defect quality system, lean manufacturing, Kaizen, life-time employment (and job security), etc. Some of such global players comprise Upjohn Pharmaceuticals (later acquired by Pfizer), Eastman Kodak, Xerox, IBM (International Business Machines), and Ford. Many of such companies established their research facilities and divisions or collaborated with others in Japan, Germany, USA, UK, and other countries of Europe to acquire technological supremacy [3]. They found emerging markets of Asia as new grounds for relatively cheaper production facilities along with full potential of demand and lucrative opportunities for raising their market shares. Some of such markets or commercial cum industrial hubs include China, South Korea, Taiwan, Hong Kong, India, Indonesia, Malaysia, Singapore, and Thailand. These companies exploit their cheap inputs, semi-finished or finished products, services, labor force, and other resources. Managing global skills and resources tends to be far more cumbersome than establishing overseas network. The workforce diversity and talents can serve as competitive edges but they need to be applied or wielded aptly. Along with human capital, managing global resources require depth of understanding about the overseas culture, setting up norms, values, and SOP (Standard Operating Procedure) that can work in an alien territory. The home market's controlling parameters and culture can vary significantly than that of foreign markets. Eventually, as their learning and experience curves incline, they capitalize these resources to attain new heights of excellence, keep improving their own international best practices, and ultimately enrich their value chain across the global network. Learning is a continual process for such organizations and they strive to wield it to avail cutting edge excellence. They develop and keep flourishing a database of knowledge management. They record each major success of their organizations; believe in storytelling, sharing them across the board and network of their worldwide subsidiaries. The ultimate aim is to replicate the well-proven practices that yield the perfect outcome. Intercontinental companies like P&G (Proctor & Gamble), Nestle, KFC, Pizza Hut, Walmart, Metro, etc. have been constantly updating their global learning to fortify competence, which enable them to stay ahead of competition [3].

Another paradigm on global expansion spells various strategies crafted by globally expanding or operating companies to extend their networks abroad. It illustrates a set of four strategies in the following Fig. 1, along with their characteristics [5,24].

TABLE 1. THE CREATION OF VALUE THROUGH GLOBAL EXPANSION (SOURCE: ADAPTED FROM [24])

1.	Building & Transferring Core Competencies
2.	Establishing Global Network
3.	Managing Global Skills and Resources
4.	Enhancing Global Learning & Fortifying Competencies

In an ***international strategy***, a company resumes international operations either through trade (i.e. import and export) and/or investment [5]. This strategy initiates the internationalization process of organizations. Many of the today's giant companies and conglomerates resumed their international operations through exports only. When a company has export offices/subsidiaries, marketing or sales subsidiaries, or manufacturing operations with few departments only, and it produces or out sources and markets standardized products produced in bulk volume to attain scale economy, it applies this strategy. [24]. Pakistani companies like National Foods and Mehran Foods avail international strategy and sell standardized products to gain the advantage of economies of scale [3].

In a ***global strategy***, a global company locates its overseas production subsidiaries preferably in some selected low-cost territories and intends to gain low-cost leadership. It produces or out sources standardized products (having uniform features and attributes designed for global customers with homogenous needs). Its intention is to minimize cost, gain economies of scale, and raise the market share by offering prices that the domestic competitors cannot offer [24]. China, India, and Brazil are some examples of such low-cost countries. In many cases, global companies also capitalize global advertising strategy for their global brands. The famous ad campaigns of Marlboro cigarettes in 1950s and the ad campaign of Pepsi in 1990s bringing Michael Jackson as its brand ambassador reflect such strategy [5]. A global company has worldwide presence in almost all continents, it produces or outsource standardized products/brands (like Nike does), fosters a uniform image, strategies, and campaigns, but may do slight alteration in its strategies such as product offerings, promotional style, and distribution channels in response to local market conditions. It treats the world as a single global market and exploits the trends towards globalization, global markets, global financial system, global culture, global media, and global customers. In addition, it designs a centralized structure and transfers its core skills and

FIG. 1. FOUR TYPES OF STRATEGIES FOR CORPORATE GLOBAL EXPANSION (SOURCE: ADAPTED FROM [5,24])

competences among units for effective replication of the proven practices. The purpose is to gain cost edge and capitalize the technological differentiation [25]. The obvious demerits include less flexibility to respond to local market variations and customization. The retail giants like Walmart, Sears, Macro, and Care4, Nike, Addidas, Coca-Cola, Pepsi, Sanofi Aventis [26], and Shan Foods Pakistan [27] exploit global strategy. In a case study on Walmart's corporate globalization, the probe suggested and proved that global companies should 'go global, but think their local,' which means they must engage in intensive marketing and business research to ensure the acceptance of their global brands and strategy, otherwise they can make slight adjustments when mandatory [3]. Note that according to some authors including Philip Kotler, 'a global company is the one that has presence in more than one country either through production facilities or has influence or control over the supply through outsourcing from some other company' [28].

In a ***multi-domestic strategy*** (so-called *multinational strategy*), a MNC/E (Multinational Company / Enterprise) has autonomous and decentralized subsidiaries or divisions in various countries around the globe that produce or outsource and market standardized but especially customized products having differentiated features [24]. An MNC/E treats every country as an individual market, which requires customized or differentiated products according to the specific needs of the customers of those fragmented markets. It builds SBUs (Strategic Business Units) as subsidiaries to perform operations worldwide. It offers a great deal of decentralization to the domestic management to administer its strategies, but strives to move around its vision and mission, and exercises control through its integration mechanism. The demerits include increased cost due to customization, R&D, duplication of value chain activities like distinct R&D in every market, relatively lower economies of scale, dearth of transferring its core skills and competences among units [25]. Companies or MNCs that execute this strategy include Bayer, British Petroleum Company PLC, Nestle, Unilever, Vodafone Group, General Electric, General Motors, and Royal Dutch/Shell Group [29].

In a ***transnational strategy***, a TNC (Transnational Company) has overseas subsidiaries or divisions in various countries around the globe that produce or outsource and market standardized as well as customized products having differentiated features. It prefers to select some low-cost locations to gain cost advantage and scale economies, but believes to treat every market as independent unit with diverse needs of customers. Hence, it produces products tailored for individual markets as well. Its goal is to offer the best value to its customers or differentiated products at low cost [24]. It exploits the edges of multinational and global strategies [25]. Mexico, South Korea, China, Indonesia, Malaysia, Thailand, India, Pakistan, and Bangladesh are some examples of such low-cost countries. Companies that employ transnational strategy include Caltex [24], P&G, GSK (GlaxoSmithKline), Abbot [3], and IKEA [30]. McDonalds and KFC apply this strategy to offer standardized cum customized meals to suit individual market tastes and preferences [25].

Researchers have discoursed on the issue of why companies adopt any particular strategy for their global expansion. The answer is, there are markets in which cost pressures tend to be high because of excessive competition, price sensitive customers, and price war, then firms prefer to go for international strategies (especially at their early phase of internationalization) or global strategies, and there are markets in which local responsiveness pressures tend to be high because of rapidly changing needs and wants of customers, then firms prefer to go for multi-domestic/multinational or transnational strategies [5]. Many companies around the world, first adopted international strategy i.e. turned as ICs (International Companies), then adopted multinational strategy i.e. turned as MNCs (Multinational Companies), and then sequentially moved to global strategy i.e. turned as GCs (Global Companies), and finally transnational strategy i.e. turned as TNCs. Cadbury, Toyota, Honda, Mercedes Benz, and many other companies resumed their international operations through exports and later turned as global companies. Note that UNCTAD uses the term TNCs and OECD uses the term MNCs to refer to all sort of global businesses. Similarly, intercontinental/international companies or global businesses are generic terms. An interesting fact is that in some industries globally standardized brands (instead of customized brands) are well-accepted to global consumers without any local adaptations. The examples include automobiles, computers, cell phones, video games, electronic gadgets, industrial machinery, robotics, cutlery and crockery, and many others. On the contrary, customized brands are usually well-accepted in several personal care and personal ware/usage products related industries.

2.2. Transplanting Corporate DNA

Transplanting corporate DNA or other genetic stuff into the SBUs, divisions, subsidies, facilities, and branches is about implanting corporate doctrine, competitiveness, and corporate culture into its various subunits. The purpose is to make sure that uniform cum standardized system, work processes and procedures prevail within entire organization and its subunits located all around the planet, and performance takes place in line with preset benchmarks. Mitsubishi, Sony, Philips, General Electric, General Motors, Toyota, KFC, Subway, Emirates Airlines, Cathy Pacific Airlines, Walmart, and many others are the perfect examples of the globally operating corporations that have successfully transplanted corporate DNA into all of their subunits. Even companies like Pfizer, GSK, Coke, and Pepsi that license to run the production facilities in many countries also ensure implementation of uniform corporate philosophy all around their network. The same seems true about intercontinental NGOs. NGOs like NICEF (United Nations Children Fund), USAID (United States Assistance for International Development), AUSAID (Australian Assistance for International Development), Lions Club, Rotary Club, TI (Transparency International), Toyota Foundation, and Shadow Trust all witness uniform corporate DNA and genetic cloning. It calls for executing strategies, training and development, proficiency, communication, coordination, stern monitoring, and controlling [3]. Indeed, implanting corporate DNA is about successful replication of an organization's systems across its network of operations. Replication occurs through a standardized and homogenous format. The examples of successful models of replication were probed by various investigators include IKEA [30], Hennes and Mauritz, Starbucks, The Body Shop, and McDonald's [3]. The replication strategy entails the merits of brand name recognition and attaining economies of scale [31]. The giant furniture making company, IKEA has unique format for replication, it owns a flexible replication strategy to make a trade-off between standardization and local adaptation [30], which allows it to enjoy the competitive advantages of differentiation strategy.

2.3. Technology-based Capacity Building and Competitive Edges

Technology is the combination of knowledge, abilities, skills, tools, techniques, materials, machines, equipments, and computers that people use to convert raw material into valuable goods and services [24]. Various authors spelled out the role of capacity-building and competitive edges/strengths in fostering the business beyond borders. They added myriad variables under the construct of capacity-building and competitive edges including technological advantages and many others. Out of them, the authors of this probe have meticulously selected some of them including *technology-based capacity-building and competitive edges* in the value chain, *research in business* (including R&D), marketing and business research), *process design, automation, and e-commerce* [3,7,9,11-17,24]. Intercontinental organizations opt for a technology that can fulfill their production objectives and operations. They also investigate the type of technology that rival firms are utilizing. In nexus with technology the chief concerns that they explore include emerging technologies, obsolescence of technology, acceleration in technological changes, entrepreneurial opportunities for new discoveries, advent of internet, ICT, differentiated technology, cheaper technology, increasing R&D budget, government support for R&D, increasing strategic alliance among industry and academia for inventions and innovations, joint ventures for technology, technology transfer, changing regulations about technology, patents and intellectual capital laws, and likely technological changes. In addition, they assess the technological challenges and opportunities and determine the best available option by entertaining their resources and objectives. The technology that they adopt depend on various factors, as companies evaluate the technological advancement of their competitors, the size of the total demand (that whether the product attracts sufficient demand), demand of the company products and its future objectives, profit on investment, and the like. Such companies build their capacities, design their value chain processes and procedures to develop core competitive edges, and opt among some technological alternatives for manufacturing system ranging from manual, semi-automatic, automatic, and flexible/flexi manufacturing system. In a manual system of manufacturing or service operations, the product is developed manually or by hand. In a semi-automatic system, the product is partially developed manually or by hand and partially through a machine. In an automatic system, the product is fully developed with machine(s). In a flexi manufacturing system, the product is fully developed with machine(s) and requires the least human-machine interface. Only some of the foremen oversee the whole process of production to check quality, accuracy, and ensure the least waste or rejected products. They only insert the raw materials into the machine through laborers, check the process flow, and finally get packed the finished products. In a high-tech industry, the machines or robots do the product handling, packing, and storing job as well. Usually global businesses opt for automatic and flexi manufacturing system. Some of the latest technologies used in the manufacturing or service operations and especially flexi manufacturing system include: CAD (Computer Aided Design), for graphic designs of products), CAM (Computer Aided Manufacturing), for manufacturing applications), industrial robots, NCs (Numerically Controlled Machines), CNCs (Computerized Numerically Controlled Machines), battery-driven vehicles (for carrying materials), automated materials handling and storage devices, and so forth. Eventually, E-commerce is the gateway to success for companies across the world to globalize their operations and networks. Through their websites, many companies from the least developed to developed countries commenced online sales and marketing to global customers. Search engines, email messenger services, video calls to conferences, social media networks, and online trade cum marketing support agencies have fostered the online business to unforeseen heights.

R&D personnel integrate with marketing, operations, finance, and other departments to conceive and develop innovative and invented products. Their job extends from improving existing products, old, and obsolete products to developing new products. They test new raw materials and particularly indigenous cum cost effective ones found in abundance, in a bid to adjust them into existing or new products, and adapt products to local tastes cum preferences. Developing new products seems mandatory in almost every industry to ensure survival, growth, and profitability. The key considerations in an R&D strategy include [32]: (1) choose among basic or applied research or a blend of both; (2) develop new products and processes to suit local preferences; (3) search for alternate materials to curtail cost; (4) reduce number of components; (5) choose to avail internal or external R&D; (6) maintain a liaison and cooperation with university and private researchers; (7) set R&D budget; and (8) choose among one of the three R&D approaches: (a) invent new products/technology to become market leader and pioneer to enjoy monopoly by exploiting patents; (b) innovate the most successful products, rather than being a copy-cat or me-too brand, it's better to be an innovative imitator (it may require the techniques of reverse engineering to develop new models of products, which minimizes the risks and costs associated with untried products); and (c) be a low-cost and high volume producer and offer relatively less expensive replicas of invented or innovated products. This requires huge investment in plants and machinery, mass production, and economies of scale production, while investment in R&D is substantially low. If the demand exists, product is accepted by users, and contemporary marketing tools are employed, then this is the least risky strategy. Many companies establish liaison with university labs and non-rival firms to build new technologies. In addition to R&D, globally expanding entities opt for research to study targeted foreign markets, their annual demand and supply, its gap, consumption patterns, trends, future forecasts of its potential, consumers' attitudes and behaviors, socio-economic factors, cultural, technological, legal and political factors, and so on. In addition, they reckon cost-benefit analysis of the new venture to ensure their long-run viability, profitability, and sustainable development [24].

In today's era of intensive competition and techno warfare, *quality, standardization, and certification* have become the prime concerns for globally operating companies. The core concern is not just the superior quality of products and services, but standardization of entire processes used in business, from operative process to customer satisfaction process, all should be pre-defined and well-planned, and seeking certification of quality benchmarks and standardized processes not only guarantee efficient and effective operations, but also enhance profitability and corporate goodwill. Many national and globally operating organizations have acquired certificates like ISO-9000 (International Standardization Organization) and a variety of standards affiliated with it, TQM, GMP (Good Manufacturing Practice), etc. to develop a quality-based operating system. One of the prominent concerns for ICs is about *protection of intellectual property*. Thanks to the WIPO (World Intellectual Property Organization), which is a UN agency, established to create awareness about intellectual assets, nourish, and safeguard these assets around the world. WIPO designed uniform international laws to promote creative works and protect them from piracy, theft, and intellectual theft, which is like smart copying by altering the basic design in a way to deceive the pioneer product producer. WIPO administers a global system throughout the member nations of UN to execute a computerized network to monitor the registration, changes, and expiry of intellectual property all across its member countries [33].

2.4. Gap in Literature

This research is in the matrix of Pakistan's corporate sector to learn about its globalization move. It intends to uncover the strategies adopted by Pakistani companies toward global expansion. As per these authors' search, there is no such study in Pakistan in this realm. However, the researches concerned with exports and foreign trade of Pakistan, and globalization and Pakistan are available and are conducted by various authors and prominent institutions. Hence, the authors found gap in the literature in the context of Pakistan, which has its unique profile that substantially differs from that of other countries especially the developed countries. This scenario justifies the need for such research undertaking.

2.5. Conceptual Framework

The key variables in the conceptual framework consist of technology-based capacity and competitive edges and corporate global expansion. The predictor variable technology contains the sub-variables like research in business, process design, automation, and E-commerce. The outcome variable is corporate global expansion, which includes choice of countries and modes of entry as its sub-variable. Note that these variables are already discussed in the resumption of literature review section and its sub-section 2.3.

2.6. Research Hypothesis

Based on the literature review cited and illustrated conceptual framework, the core hypothesis and its sub-hypotheses are delineated beneath:

H1. Technology-based capacity building and competitive edges pave the way toward corporate global expansion.

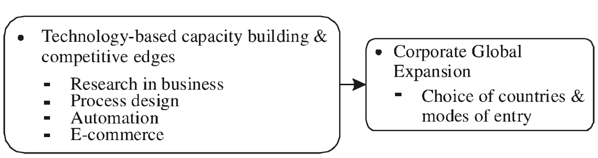

FIG. 2. A FRAMEWORK ON TECHNOLOGY-DRIVEN CORPORATE GLOBAL EXPANSION

H1.1 Research in business paves the way toward corporate global expansion.

H1.2 Process design paves the way toward corporate global expansion.

H1.3 Automation paves the way toward corporate global expansion.

H1.4 E-commerce paves the way toward corporate global expansion.

2.7. Nature of Research

This probe embodies mix methods of enquiry including qualitative and quantitative methods. It tends to be exploratory in the matrix of Pakistan during its 1st phase and then, explanatory during its 2nd phase to expound pertinent variables and context after empirical testing. The population contains top-five export sectors in Pakistan inclusive of textile with its sub-sectors (like woolen, weaving, spinning, garments, composite, and allied textiles), leather and food group consisting of top-three including rice, seafood and wheat [34-36].

2.7.1 Data Collection and Analysis

The primary data is gleaned from exporters and globally expanding companies of Pakistan operative in top-five export sectors of the country inclusive of textile, leather, rice, seafood, and wheat, which contain sub-sectors as well. Wheat export is allowed by TCP (Trading Corporation of Pakistan) when there is a bumper crop. For interviews, the samples consist of twenty five senior international managers from top-5 export sectors in Pakistan, five from each category/sector chosen through convenience sampling procedure, through a prescribed formula [37]. The total population in those five sectors is 5270 limited companies [38]. For survey, 286 companies or five plus percent samples are chosen through proportionate stratified random sampling articulated with systematic sampling through a prescribed formula [39]. It assures participation of all the sub-sectors of the multiple populations in equal proportion. These companies were approached through the personal contacts of the researchers through EPCCI (Federation of Pakistan Chambers of Commerce & Industry). The samples were approached through personal, telephonic, and electronic means (i.e. through emails and consecutive reminders) for the survey. Out of 400 elements of the population, 286 samples responded resulting in a response rate of around 72%. The questionnaire for survey employed 5-point Likert scale and its reliability was examined via Cronbach Alpha test. Both the questionnaires (for interviews and survey) were pre-tested to remove any bugs. In a bid to enhance the validity of the probe, its results are compared with those of the analogous enquiries to assess their resemblance or discrepancy.

The data analysis techniques for interviews include their interpretation through code book preparation, protocol analysis, and transcription; and for survey, Reliability Test to determine soundness of the measurement tools; Multiple Regression Analysis to find about the level of influence of predictor variables over the outcome variable, and significance of the overall model; and One way ANOVA to learn about equivalence of the means of the five populations are employed through prescribed ways that whether the responses of the five different populations and their sub-populations appear same or differ from each other [39-40].

3. RESULTS AND DISCUSSION

The results arising from data analysis contains aggregate interpretation of interviews and analysis of survey forms.

3.1. Interpretation of Interviews

The ways and means to stretch the network of operations (of Pakistani companies) in global markets included direct and indirect exports at the outset of their initiative, and later on, many of them open their offices or sales subsidiaries abroad. In connection with an 'export strategy, *choice of a country*' does not seem a problem, since they supply the products wherever they receive an order. They just take care of the terms of transactions and especially mode of payment. Many of them prefer LC (Letter of Credit) or CAD (Cash Against Documents), which is receiving the payment of invoices instantly after shipment to the importers. After initial successes and sustainable growth in the overseas markets, these exporters strive to establish their own offices or branches abroad. *For them, the most preferred modes of entry for entering overseas markets* were exports (direct or indirect), as exports offer the least risks. After initial success, they establish overseas offices or subsidiaries at one or few locations like Dubai, and then keep expanding around the globe.

Regarding *the core competitive edges in the global arena*, the globally expanding Pakistani companies built *technical capacities* in their value chain and develop linkages to establish rapport with buyers and suppliers overseas. Indeed many of them were persuaded by their relatives and pals overseas to resume exporting them. In the wake of initial success and tasting the profits, they firmly determine to expand their global operations. Their technical capabilities comprise of the technical know how, R&D, comprehension of the processes of business inclusive of production process, quality, standardization, and certification processes, marketing processes, customer relationships' consolidation process, automation, and e-commerce. In addition, their financial strength enables them to determine a new path of operations. Whether they arrange resources from their own sources or borrow from some lending agency, the financial capability consolidates their position. With enhanced learning and experience curve they perform even better. Their *technological innovation further stimulates them to globalize their network.* From the perspective of commodity(ies) exporters of rice, seafood, and wheat, the technology is about technical know how, functional process design, office automation, and e-commerce capabilities. They do understand the value of technological initiatives, but *overall* there seems a *dearth of technological innovation* in Pakistani companies. Not all but many possess somehow obsolete plants with semi-automatic processes. *They produce standardized products* as well as *customized products* to match the tastes and preferences of foreign buyers. Many of the manufacturing houses which serve as outsourcing agents cum contract vendors of foreign companies manufacture only tailor-made products to suit the needs of their buyers, and they either manufacture unbranded goods or branded goods as per buyers' specifications. Their buyers consist of overseas manufacturers, trading companies, and global giant retail chains. On the issue of *conducting research (R&D, marketing and business research)* for developing superior technologies and products, doing overseas environmental analysis and strategy development to enter and succeed there, *their majority conduct little research*. Their R&D budgets are low and they rely on the trade statistics and info obtained through personal contacts and their export/international managers, or they search the web-based data of governmental agencies including TDAP (Trade Development Authority of Pakistan), MoC (Ministry of Commerce), and other foreign trade promoting public and private bodies. Hardly few utilize external consultancies, or send their domestic representatives abroad for detailed market studies. They gain knowledge of foreign markets, customer preferences, overseas regulations, standardization, certification, and stiff competition is acquired from in-house field experts, relationships' network, inclusive of their dealers abroad, linkages with the companies whose contact details were given in the trade directories, trade statistics, bulletins published by governmental agencies, websites, and web-links, and other published sources, but majority of them avoid investing in hiring foreign experts as consultants. The experiences and business acumen of managers make them feel more confident. Many employ experienced export managers having depth of knowledge and rapport with foreign buyers. Some other key competitive edges comprised of technical and financial capabilities. They enjoy competitive edge in *process design* in all aspects of business inclusive of production and overall operations. Regarding *the common cultural problems (inclusive of language barriers) in their overseas offices/subsidiaries,* they comply with prime facie and pre-established norms, SOP, and code of conduct for business. They steer their overseas employees to develop a corporate culture, which fits into domestic and the global culture. Regarding the *type of control mechanism they exercise to control their overseas operations,* the common tools were: setting goals, performance yardsticks, SOPs, continuous communication, and coordination between the head office and overseas offices to regularly monitor and evaluate progressive development and any unforeseen barricades that botch the performance benchmarks. In case of *automation*, not all but many of them still have semi-automatic and age-old plants, while many do not fully exploit business automation software/systems. Regarding *the role of internet-based trading or marketing to help companies grow globally,* they believe in the effectiveness of internet in searching and accessing global customers, direct and indirect buyers or importers, outsourcing agents, and procurement houses. They are using emails for contacting them and avail social media marketing tools. Many of them have got developed their websites and others are in process. Surprisingly, *their majority do not believe in the effectiveness of e-commerce facilitating channels like Alibaba, TradeKey, TradeIndia, MiddleEast B2B, etc.*

3.2 Quantitative Data Analysis

The quantitative analysis exhibits the following results:

Table 2 exhibited above has splendid reliability of the measurement scale. The score of <Cronbach Alpha stands between the ranges of 0.801-0.974> with 3 items on each predictor variable including TCB (Technology-Based Capacity Building & Competitive Edges), RB (Research in Business), PD (Process Design), AM (Automation), and EC (E-Commerce), and six items of outcome variable, CGE (Corporate Global Expansion). The scores of all the individual variables stand greater than the benchmark of 0.70, suggesting that measurement scale is highly reliable for data analysis.

Tables 3-4 presented below display R values and Coefficients respectively. In Table 3, the R values of the model that states the coefficient of determination or the effect of the predictor over the criterion variable. The R score is (R=0.846), with R square value of (R^2=0.713), and adjusted R square for (AR^2=0.703), which suggests the predictors including technology-based competitive edges, research in business, process design, automation, and E-commerce explain the criterion variable, corporate global expansion by 70%. The significance level of the model that is <sig.=0.000> and the F value is <F=75.901>, which is in the acceptance region. Hence the result shows the overall model fit. In Table 4, the results show Beta values of all the independent variables/predictors that had t scores that are greater than the cut off value of 2 with the significance level that is less than 0.05. Hence, the predictors appear significant. On the basis of the results driven from Multiple Regression Analysis, all the hypotheses are accepted.

Table 5 for ANOVA exhibits the value of significance of results, <sig.=0.062>, which means it is insignificant. The F statistics is <F=1.480>, implying

TABLE 2. RELIABILITY STATISTICS [CRONBACH'S ALPHA (CA) AND N OF ITEMS/QUESTION ON INDIVIDUAL VARIABLES]

CA	N	CA	N	CA	N	CA	N	CA	N	CA	N
0.974	3 (TCB)	0.913	3 (RB)	0.963	3 (PD)	0.821	3 (AM)	0.832	3 (EC)	0.801	6 (CGE)

that the means of varying populations (i.e. data pertaining top-five export sectors) are the same or not different from each other. Note that in the above table number 5, Beta value of Constant displays zero value, because in Multiple Regression Models, the constant means the intercept, where the mean of the residuals is brought to zero value, which ensures that the model remains unbiased and true predictor of coefficients [41].

The discussion of findings (from qualitative cum quantitative modes of enquiry) maintains the bottom lines that globally expanding companies of Pakistan have been availing the traditional paths of globalizing their operations, usually through exports and gradually setting up their sales subsidiaries or branches overseas. They do understand the salience of improving their competitive capabilities, inclusive of learning and development. But the dilemma is that their initiatives toward technological capacities and core competitive edges in the areas of research, process design, automation, and E-commerce appear somehow infirm in areas like discovering new solutions via technological modernization, R&D, market research and business viability studies, complete automation, and flourishing E-commerce via online trading and marketing facilitating channels. This is point of contradiction with the extant literature. This is a typical case of Pakistan. Not all such companies but many of them feel reluctant to invest huge funds or raise finance to up-grade their technology or acquire new one. They rather stay content with the old or obsolete technology and do not take the risk of bearing the cost of adopting the latest technological plants and processes. Similarly, many of the traditional businessmen and traders find it less significant to invest in research (including R&D, and marketing and business research), process redesign (including attaining the certification of quality standards and benchmarks of operative excellence), automation of production, packaging, logistics, and overall business processes, and exploiting E-commerce as a gateway to global opportunities. They do avail E-commerce tools but many of them do not believe in the effectiveness of trade facilitating channels like Alibaba.com, Trade India, and others, while these companies are transacting in billions of dollars. Regarding market research, their reliance is mostly on government statistics and reports available on the internet, rather than collecting the custom-built, specific research done by overseas consultants exclusively for their products. In nexus with techno-competitiveness, market research, and E-commerce capacities, it is imperative that they re-devise their competitive strategy, take calculated risks for modernization of their businesses, and do rationale prognosis of growing demand of various products in the global marketplace.

TABLE 3. MODEL SUMMARY AND ANOVA (OF MULTIPLE REGRESSION ANALYSIS)

R	R Square	Adjusted R Square	Std. Error of the Estimate	F	Significance
0.846[a]	0.713	0.703	0. 42812	75.901	0.000[a]
a.	Dependent Variable: Corporate Global Expansion				

TABLE 4. COEFFICIENTS

Variables	Beta	t	Significance
Constant	-	3.176	0.002
Technology-based Capacity Building & Competitive Edges	0.331	3.227	0.001
Research in Business	0.433	3.685	0.003
Process Design	5.71	5.610	0.000
Automation	5.40	4.801	0.015
E-commerce	4.34	3.700	0.002

TABLE 5. ANOVA

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	0.047	1	0.047	1.480	0.062
Within Groups	0.127	3	0.042	-	-
Total	0.174	4	-	-	-

4. CONCLUSIONS

The basic problem and purpose of this investigation was to learn about the way globally expanding companies of Pakistan strategize their entries in the world markets, and the role of technological solutions they seek, since their expansion can be advantageous to them as well as the domestic cum international economy. This paper avails mixed methods consisting of qualitative and quantitative research paradigms. For qualitative probe, semi-structured interviews have been conducted and for quantitative probe, structured survey has been utilized. The participants include export/international managers or owners of limited liability companies operative in top-five export sectors in Pakistan including textile, leather, and food group containing rice, seafood, and wheat. The samples represent multiple populations and are drawn by applying convenience sampling procedures for interviews and proportionate stratified sampling articulated with systematic sampling for survey. This section concludes the probe and recommends solutions for the practitioners and policy-makers.

(i) Many companies of Pakistan are progressing toward *corporate global expansion*. They pertain to various areas like textile companies, leather and food business companies, service providing concerns, info-tech concerns, etc. From the perspective of *choice of countries*, exporters (including those that are expanding globally) ship orders wherever they receive orders from; they just take care of the invoice and payment terms. They take a special care to entertain orders from the least developed countries, as in some African countries, the importing parties make disputes over the issues of quality or any discrepancy in terms of trade, and even banks do not honor the covenants of letters of credit. *The most preferred modes of entry* for them in entering overseas markets was exports (direct and indirect), then moving ahead to establishing overseas offices, and then gradually moving to set overseas subsidiaries.

(ii) ***The strategies that Pakistani companies adopt** in the global arena* include: building capacity (technical, managerial, and financial capabilities) and competitive edges in the value chain, technological up-gradation, R&D, and marketing and business research, process design, automation, and inclination toward E-commerce. They enrich their value chain capacities, do research through government's statistics and database, websites, and personal contacts; gain knowledge of market, customers, culture, overseas regulations, standardization cum certification requirements, and competition; and build network of relationship with overseas buyers and suppliers, *but their majority appears undermined in few areas like techno-modernization, research in business* (including *R&D, and marketing cum business research), process automation, and E-commerce*. *Technology and product issues* were: gradual improvement in technology but, overall dearth of R&D efforts and technological innovation cum up-gradation by them, while these companies are engaged in *producing standardized cum customized products*. *Research for global game*: There are evidences of lack of market research before going global and reliance on trade statistics, reports, and info obtained through personal contacts. *Process design:* They were found adept in designing production and overall business processes. Regarding *managerial and controlling processes,* they tackle the issues of *foreign languages and cultural barriers* by setting pre-established norms, rules, and SOPs. They steer their overseas employees to form an acceptable corporate culture, which matches the values of their domestic culture as well. They *control* their overseas operations by establishing targets, SOPs for their workflows, set performance benchmarks, and exercise continuous communication and coordination in a bid to track performance, identify, and improve any deviations. *Automation*: There are witnesses of process automation and SOPs, but even then there is a substantial space for reforms in this area, since many of them adopt semi-automatic and age-old plants, and do not avail ERP (Enterprise Resource Planning) softwares like SAP (System Applications and Products in Data Processing), etc. *Inclination toward E-business*: There are signs for growing inclination toward E-commerce (in various forms). But surprisingly many of these companies do not rely very much on online marketing facilitating channels like Alibaba.com, Trade India, Middle East B2B, Trade Key, etc.

5. RECOMMENDATIONS

Globally expanding (Pakistani) companies should prioritize on *building technological capacity and competitive edges*. They should especially focus on their undermined areas (as revealed in findings of this enquiry) including technological innovation cum up-gradation; accelerating R&D efforts and undertaking comprehensive market research and feasibility reports before going global; keeping in view the size of the business, adopting altogether automation of the business cycles; and availing reliable online marketing facilitating channels like Alibaba.com, TradeKey, etc. They can also fortify such capabilities through an ERP (Enterprise Resource Planning) system or data processing software for business management, for which one of the renowned software is SAP. It also integrates and wields other sub-functions of the business like procurement, product planning, market intelligence, cost analysis, inventory control, shipping and payment, etc. In addition, for sustainable development, they need to focus on building capabilities (entrepreneurial, managerial, technical, and financial), wield continual learning, knowledge management, and replication of well-tested practices across their networks.

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