CONTROLGEAR ELECTRIC CORPORATION

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Executive Summary

Controlgear Electric Corporation (CEC) is one of the Filipino-owned electrical equipment manufacturing companies and one of the market leaders in the manufacturing of switchgear and controlgear industries in the Philippines. The company is currently at the latter phase of its infancy and needs further internal and external nurturing through continual improvement to grow and continuously compete in the market.

CEC has been financially stable and has vision and mission that enable the entire team to survive the electrical equipment arena. However, the company needs to continually improve to cope with all the hurdles that come along its way by utilizing additional approaches to strategies and planning.

Based on the internal and external evaluation of CEC, the company has slightly above average internal position at a weighted average of 2.57. This means that CEC has been gradually becoming responsive toward the factors affecting its growth which is a good sign for further business advancement. Furthermore, CEC's SWOT, IE, and SPACE matrix analyses supported its current strategy to develop both its product and market while remaining at the hold-and-maintain position.

INDUSTRY ANALYSIS

Economic Characteristics

This industry sub-class belongs to the businesses where there is a huge difference in profitability and has products ranging from highly-sophisticated (mid- to high-end: industrial, utilities, and OEM market) to those that are less sophisticated (low-end commodities: commercial and residential markets). Products are customized and often involve large capital outlays. Thus, there is a minimal turnover of product inventories. However, due to the nature of the materials and methods involved, a misstep should be avoided to prevent substantial revenue losses from product reworks, replacements, and scraps. There are widespread opportunities for growth and innovation for those who plan accordingly (Price, 2011).

Market size. The market for switchgear and switchboard apparatus is highly fragmented (Advameg, 2017). In the Philippines, there are roughly 40 companies, primarily Filipinos, engaged in producing transformers, switchgears, and electricity distribution equipment for the domestic market (The Philippines in the Electronics & Electrical Global Value Chain, 2016).

Since 2010, there has been very limited statistical information about this industry as more priorities are given to the greater contributors to the Philippine economy (e.g., electronics, food, and other commodity manufacturing industries).

According to Mr. Ferdinand Caluza, four out of 13 identified companies often meet in the mid- and high-end market grounds (R. Vasallo, personal communication, July 7, 2017). They are the following: (a) Asiaphil Electric Pampanga, Inc. (AEPI); (b) Total Power Box Solutions, Inc. (TPBSI); (c) LJ Industrial Fabrication, Inc. (LJFI); and (d) Controlgear Electric Corporation (CEC).

Industries served in the mid- and high-end market based on the classification scheme of PSIC include mining and quarrying industry; manufacturing industry; electricity, gas, steam, and air conditioning supply industry; water supply; sewerage, waste management and remediation activities industry; construction industry; transportation and storage industry; and information and communication industry.

Goods that are typically produced includes air and power circuit breakers; bus bar structures; electric power distribution control panels and switches (except snap, push button, and tumbler); electric switchboard equipment cubicles; distribution boards and cut-outs, fuses, fuse clips and blocks, knife switches, metering panels, and panel boards; electric power distribution control panels; electric power fuse mountings and devices (600 volts and over); generator and electric control metering panels; power connectors, switching equipment, regulators, and switchboard and parts; switchgear and switchgear accessories; and electrical switchgear apparatus time switches (United States Department of Labor, 2017).

This industry uses fabricated metal products including sheet metals (except stampings), screw machines (including metal bolts, nuts, screws, washers, and rivets), forgings, and castings (rough and semi-finished). It also utilizes steel shapes and forms including steel sheet, strip, plates, piling, bars, and structural and bar shapes; nonferrous shapes and forms including nonferrous metal smelter and refinery shapes (including precious metal), nonferrous wire and cable (including magnet wire bar or insulated wire, etc.) as well as aluminum and aluminum based alloys. It also makes use of industrial electrical control equipment (either purchased from other companies or received from other plants of the same company) (Switchgear and Switchboard Apparatus Manufacturing, 1999).

Current Economic Factors

Asia-Pacific switchgear market. A strong demand for switchgear products is driven by the increasing need for substitute energy like renewable power and increase in investments across the commercial and industrial sectors. The key product segments are high-voltage, medium--voltage, and low-voltage switchgears.

According to Frost and Sullivan Research Service (2015), the shrinking market in East Asia is expected to see a major shift in the operations of companies toward Southeast Asia through acquisitions and joint ventures to capitalize on the projected growth in renewable integration and Testing and Development projects. By 2027, Southeast Asia's revenue contribution will overtake East Asia and is poised to reach more than 50% of the overall Asia Pacific switchgear revenue contribution by 2030 if it can maintain the compound annual growth rate (CAGR) at the current level. Also, the evolving urban landscape in Asia Pacific, coupled with smart distribution networks and two-fold increase in solar and wind power systems by 2025, will create a significant demand for low-voltage and medium-voltage switchgear products over the next 10 years (Frost & Sullivan, 2015). The Philippine switchgear and switchboard market will benefit from these developments in the coming years. However, a perceived threat out of shifting companies from the East Asian region is also apparent in terms of possible dominance in capturing the market share.

The human capital for electrical equipment manufacturing. The electrical equipment manufacturing accounts for just over one-fifth of all employees and production workers at the manufacturing establishments in the Philippines. Males are prominent in both assembly positions and administration/ management. In this industry, 77% of the employees are production workers, reflecting its labor-intensive nature. Engineers typically account for between 8-12% of the overall workforce. From an education perspective, most workers come straight from high school (production workers) or from a four-year-course university

(engineers and other employees). Manpower turnover is not a problem with production workers but poses a threat with engineering employees. There are concerns on retaining engineers with more than three years of experience as they are inclined to go abroad for higher wages. The low growth rate of engineering graduates and the trend for working abroad pose a threat for the switchgear and switchboard manufacturers.

ASEAN integration. Department of Trade and Industry (DTI) Secretary Gregory Domingo mentioned during the Wharton and Penn Alumni Association meeting that the country is well-positioned to seize opportunities and benefits from the full integration of the ASEAN Economic Community (AEC) in 2016, as it is lifted by an impressive economic performance sustained by the various economic reforms. Domingo said that the country is in a sweet spot since it has been experiencing a robust economic growth, consistent upward rankings in competitiveness, and successive credit rating upgrades. In 2014, the Philippines achieved an average growth rate of 6.3%, the highest five-year average during the past 40 years. Domingo viewed it as a very decent number which is probably one of the highest growth rates in this part of the world.

Based on projections by HSBC and Goldman-Sachs, the Philippines will be ranked as the 14th largest economy in the world, the 5th largest economy in Asia, and the largest economy in the Southeast Asian Region by 2050. "We are even poised to surpass other ASEAN countries. We only need to step up our efforts to improve the competitiveness and capability of our various local industries, as we participate in regional and global trade," Domingo said. He added that initiatives to liberalize the country now significantly contribute to the steady growth of industries. The country's manufacturing sector has been reported to be growing at an average rate of 8.8% yearly because of the diversification of local products and liberalization (DTI, 2015).

The free flow of capital and skilled labor out of a single market and production base poses threats for the local players. The free flow of capital may lower the barriers for new entrants, while the free flow of skilled labor may bring brain drain out of better overseas employment opportunities and benefits in the nearby regions. However, the free flow of skilled labor may also be viewed positively for companies seeking greater professional manpower pool. Also, the free flow of capital can be viewed as an opportunity to take partnerships with investors to fund the current company's operational activities. On the other side, the vision for global economy integration brings enhanced participation in the global supply networks. This can provide opportunities for getting more exposed to more untapped market and untapped supply options.

Equipment and materials price index. According to National Electrification Administration (NEA), the prices increased by an average of 12% for hardware, 13% for insulators, 5% for conductors, 5% for transformers, 10% for steel poles, and 10% for fuses as compared to the 2012 index (National Electrification Administration, 2015).

In the 2012 index, NEA report showed that for hardware and insulators, the prices increased by an average of 8%; conductors/wires increased by an average of 3%; and poles of different types increased by an average of 7% as compared to the 2010 index. The remaining E/M such as distribution transformer, kilowatt-hour meter, linemen tools, and test equipment had maintained their price levels (National Electrification Administration, 2012).

The indices are issued by NEA to reflect the current cost of equipment and materials used by Electrical Cooperatives (ECs) in Luzon, Visayas, and Mindanao in consultation with various manufacturers, suppliers, contractors, and leadership associations of ECs. The same index can also be related as general reference for the movement of commodities being procured by the switchgear and switchboard manufacturers.

Price increases can be linked to how the suppliers respond to combat the inflation. From the switchgear and switchboard manufacturer's point-of-view, this can be a threat although it is just at a minimal level. This can still be managed as demands for switchgears and switchboards out of current economic (trade developments brought by the ASEAN integration) and political developments can compensate with the rise of prices.

Among the programs being implemented are the Industry Development Program, SME Roving Academy, Micro Enterprise Development Program and Industry Cluster Development of the DTI, various R&D and S&T programs of the DOST, Amendment of the Labor Code and Labor Law Compliance and Incentivizing System by the DOLE, various Energy Resource Assessments by the DOE, and the Agro-Industrial Hubs of the PCA (DTI and BOI, n.d.).

With these developments, industries including the switchgear and switchboard manufacturing will find greater growth opportunities derived from improved reliable sources of supplies, improved labor productivity through better labor policies, improved finance access, better information and communication, and more.

Porter's Five Forces Model

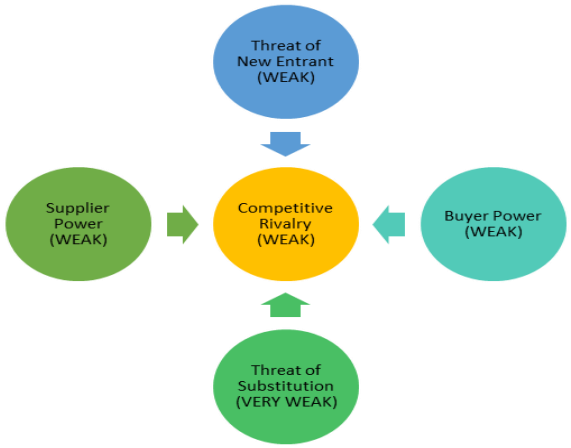

Figure 1. Five Forces Model for CEC.

Vertical Forces

Overall competitive rivalry (weak). Mr. Caluza also stated that there is a weak competitive rivalry within local mid- and high-end market players (R. Vasallo, personal communication, July 7, 2017). There is less intense competition in the expanding market in connection with the growing Philippine economy and high presence of needs to fill in the infrastructure gaps. Since only a few are engaged in this kind of business compared to the growing number of customers, it is presumed that there is a significant demand in the market.

Threat of new entrants (weak). The threat of new entrants is weak as the entry requirements are highly demanding of good financial, long technical expertise, strong reputation, and compliance capabilities. There are high capital requirements to enter the market, increased customer demands for government and industry compliance, high level of customer loyalty to current players, and high economies of scales attained by the existing firms (R. Vasallo, personal communication, July 7, 2017).

He mentioned that only businesses with huge resources can successfully compete due to high capital outlays arising from the need to invest in machineries, infrastructures, and labor costs. Also, customers' growing commitment to promote quality, safety, energy efficiency, and environmental sustainability adds to their qualification requirements for the manufacturers, such as CEC, to comply with existing applicable local and international standards covering these issues.

In addition, since there are only few players in the mid- and high-end market, customer loyalty has been established strongly among the players. Lastly, the expertise attained by current players contributed to their competitiveness in terms of attaining higher economies of scale, making it more

challenging for newcomers to break into the market and compete effectively.

Threat of substitute products (very weak). There are no substitute products to date. Also, the development of a substitute product is less prioritized than the improvement of the existing products (R. Vasallo, personal communication, July 7, 2017). The key to replacement of switchgear or switchboard equipment is its compatibility with existing network equipment and fit to the existing space both in customer premises and those of the utility. Other important parameters are reliability, functionality, and the use of standard interface with other equipment. Furthermore, depending on the technology for alternatives, extra energy use might result in having to control the environment in the building. Thus, due to the absence of substitute products, it can be concluded that this force is very weak.

Horizontal Forces

Bargaining Power of Suppliers (weak). The major inputs (various metal, steel, and industrial electrical control equipment) used in the manufacture of switchgear and switchboard have an extensive number of local and foreign distributors. Their presence, as easily observed from the internet, along with the aid of ASEAN integration for market globalization, allows for abundance and prevalence of the materials needed for production.

Manufacturers like CEC that order consumable raw materials (e.g., copper and black iron sheets) in bulk and on a continuing basis can easily create an effective tie-up with suppliers on a win-win situation – suppliers gain steady sales while customers get quality supplies at lower costs. The number of competing suppliers, abundance of materials being sold, and the opportunity to gain greater profits in bulk orders mitigate the power of suppliers over the switchgear and switchboard manufacturers.

Bargaining power of customers (weak). There are very few players in the local mid- and high-end market due to the high customization requirements of the products. This provides customers with limited options and control over the prices. Currently, these markets have an increasing number of demands brought about by various industry developments and the growing Philippine economy. It can be recalled that the mid- and high-end markets serve the utilities, industrial, and OEM customers. Apparently, the local manufacturers are more preferred for their familiarity with the current local setups, product price, and shorter lead times.

Conclusion of the Porter's Five Forces Analysis

It is concluded that the immediate industry is attractive based on the weaknesses of the competitive forces. This creates an advantageous impact for the financially and technically capable local players to remain in the market.

Major Players

Controlgear Electric Corporation (CEC)

Corporate information. Incorporated on December 26,1996, CEC is headquartered in Baliwag, Bulacan and is primarily engaged in manufacturing, trading, contracting, and servicing (installation, testing, and commissioning) of quality switchgears and various electrical apparatuses as well as products for industrial, commercial, and OEM customers.

Market coverage strategy and market reach. CEC is backed up by a single sales business unit that is divided into three divisions: End-User (EU), Reseller (RS), and Generating Companies (GenCos). All divisions are based in the headquarter office with a GenCos satellite office at Sta. Rosa, Laguna. CEC has a single

manufacturing plant situated along its headquarters in Bulacan. Each division of sales business units handles respective accounts that comprise its market reach from resellers (for utilities and commercial/industrial customers), contractors (electrical/ mechanical/general/civil contractors, panel builders), and end-users (electrical distribution utilities and commercial/industrial clients, original OEMs) to GenCos (power plants, etc.). In addition, it has established its partnership with sister companies – Integrated Automation and Control Solutions, Inc. (IACS) for Process System Integration and Automation; and Coupled Energy Technical Services, Inc. (CETSI) for Substation System Integration and Automation. Among its renowned customers/partners include ABB, Siemens, Rockwell Automation, Schneider Philippines, and General Electric (GE).

Product lines and services. CEC has around 11 identified manufactured product lines which include switchgears, substation protection control and SCADA panels, substation DC distribution and battery charger panels, motor control centers (MCCs) and process automation panels, capacitor banks, transfer switches, panel boards, cable trays and supports, bus ducts, synchronizing panels, substations, and meter centers. In addition, CEC offers construction and other services which include engineering procurement and construction in the fields of substation and process integration and automation; testing and commissioning; modernization services (retrofitting); and transformer oil regeneration).

Asiaphil Electric Pampanga, Inc. (AEPI)

Corporate information. AEPI is one of the seven service business units of Asiaphil Manufacturing Industries, Incorporation (AMII). It is headquartered in Bacolor, Pampanga and is primarily engaged in manufacturing, processing, fabricating, assembling, or contracting any or all kinds of description of mechanical or electrical machinery equipment, apparatus, appliances, devices, accessories, and/or parts and supplies thereof. It is likewise engaged in general business of trading, buying, or selling of all or any of the

aforesaid articles (Romeo G. Torno & Co., CPAs, 2015). AEPI was incorporated on August 6, 2007 but has expertise rooted from the foundations of AMII since 1973. Its capabilities in the manufacturing/assembly of electrical panel boards and switchgears made it one of the first developed service business units of AMII in the past 44 years.

Market coverage strategy and market reach. AEPI is also one of AMII's units that is backed by a total of 18 identified sales business units distributed across the country (14) and in some parts of Southeast Asia (4). It has two manufacturing plants situated in Pampanga and Batangas as part of the AMII's support services. In addition, its market reach extends from dealers (for utilities and commercial/industrial customers), contractors (electrical/ mechanical/general/civil contractors, panel builders), and end-users (electrical distribution utilities and commercial/industrial clients, original OEMs) to power systems/greenfield clients (Asiaphil, 2017). Among its prominent customers include NGCP and PELCO.

Product lines and services. AEPI has around eight identified manufactured product lines which include switchgear, motor control center (MCC), capacitor bank, transfer switches, enclosed circuit breakers (ECBs), panel boards, synchronizing panels, and victory motor controllers (Asiaphil, 2017). Services offered are handled by other service business units of AMII.

LJ Industrial Fabrication, Inc. (LJFI)

Corporate information. LJFI is headquartered in Pandacan, Manila and was incorporated on July 10, 1998. The company is primarily engaged in manufacturing and fabrication of goods such as electrical materials, products, and equipment as well as trading in wholesale and retail basis (Delos Reyes, 2015).

Market coverage strategy and market reach. LJFI has a single sales business unit situated in San Pedro, Laguna. It has a single manufacturing plant situated in Silang, Cavite and works in partnership with Total Powerbox Solutions, Inc. to boost its production and capabilities. It has two (2) satellite offices in Kasambangan, Cebu and another in Matina, Davao City. There are no available data regarding its market reach, but it is assumed that since they often meet in the market competition, there are some similarities with CEC and AEPI. Among its famous customers include Eagle Cement Corp, Meralco, and Monde Nissin Corp.

*Product lines and services***.** LJFI has around 15 identified manufactured product lines which include switchgears, panel boards, busways, cable trays, control panels, breakers/busbar gutter, MCC, meter centers, console panels, pumps controllers, magnetic starters, transfer switches, and cap banks as well as manufacture of tin-plated copper busbars and hot-dipped galvanized steels.

Total Power Box Solutions, Inc. (TPBSI)

*Corporate information***.** An industry partner of LJFI, TPBSI was incorporated on August 2, 2010, the youngest among the identified competitors. It is headquartered in San Pedro, Laguna. The company is primarily engaged in the manufacture and fabrication of goods such as electrical materials, products, and equipment as well as trading on wholesale and retail basis (Delos Reyes, 2015).

Market coverage strategy and market reach. TPBSI has a single sales business unit situated in San Pedro, Laguna and works in partnership with LJFI to boost its sales (R. Vasallo, personal communication, July 7, 2017). It has also a single manufacturing plant situated in Silang, Cavite and caters to several commercial and industrial markets such as Banco de Oro, Unilever, and Pilipinas Shell.

Product lines and services. TPBSI has around five identified manufactured product lines which include: busduct systems, cable trays, panel boards, switchgear, and custom design products.

Market leadership among major players. AEPI ranks first on years of experience, number of manufacturing plants, and number of business units while LJFI takes the lead in terms of identified product lines. TPBSI places last in terms of years of experience and number of product lines. CEC, LJFI, and TPBSI are tie in terms of number of sales of business units, number of manufacturing plants, and identified product lines. Overall, on average, AEPI dominates the competition in the set market leadership criteria. LJFI takes the second place, CEC at the third, and TPBSI at the last position

Opportunities and Threats

Opportunities

1. Strong demand for switchgear product brought about by increased necessity for alternative energies. The increased necessity for alternative energies is coupled with the significant rise in investments across various sectors. The industry contributes to the projected strong demand for switchgear product across Southeast Asia where the Philippines is located.

2. Increasing potentials to participate in the regional and global trade through ASEAN Integration. The initiatives of the government to liberalize the country to respond to ASEAN integration, along with its aid to improve the competitiveness and capability of its various local industries, is perceived to continually allow the growth of sectors such as the switchgear and switchboard manufacturing sector of the country. The ASEAN integration can provide opportunities for getting more exposed to more untapped market and untapped supply options.

3. Positive revenue potential for switchgear manufacturing brought about by political developments. The Manufacturing Resurgence Program (MRP) of the government is a welcome development to the entire supply chain of the switchgear and switchboard manufacturing. A perceived promise of better supply and service sources and new doors for more markets out of maintained and strengthened industries is to be anticipated. The developments brought by MRP would result in the following opportunities that could lead to more sources of revenues for the switchgear and switchboard manufacturing industry:

- System and spending upgrades by private and public utilities for replacement, expansion, and efficiency projects and
- Strengthening of industrial MRO (maintenance, repair, overhaul) end markets and rising capacity utilization

4. Potential capital and manpower resources brought about by ASEAN integration. The free flow of capital and skilled labor may be taken as an opportunity in the form of additional resources to sustain the current needs of the manufacturing companies in the sector. Free flow of capital can be viewed as a buffer for the need to have operational activities by building partnerships with investors and neighboring companies in a similar industry. Free flow of skilled labor can be viewed as additional source of manpower with similar or better technical capabilities.

Threats

1. Potential reduced ability to capture untapped local markets due to shifting companies from the shrinking market of East Asia. The acquisitions and joint venture capabilities of companies shifting their operations to the Southeast Asian region to capitalize the projected growth in alternative energies may reduce the market share of the existing companies in the region in terms of its untapped markets. Although this might take some time, their presence may pose significant changes in the market forces and

environment of the local manufacturers.

2. Loss of engineering talents to other countries for better employment opportunities. The low population of the engineering graduates, slow growth rate of engineers, and the tempting opportunities outside the Philippines are the major factors contributing to the limited number of available engineering workforce for this industry. Although engineers occupy a small portion in the total workforce, their functions are essential to facilitate project implementations.

3. Potential reduced barriers for new entrants brought about by ASEAN integration. Along with the opportunities brought *about* by ASEAN integration are the downsides. The free flow of capital and skilled labor may lower the barriers for new entrants as this can fund for the large capital outlays in setting up a similar manufacturing business. There is also an imminent brain drain as neighboring countries and/or companies offer better employment opportunities than its local counterparts, making market penetration easier due to the capture of better pool of manpower.

4. Climbing prices of manufacturing equipment and materials due to inflation. Price increases can be a threat although this can only be at a minimal level. This can still be managed as demands for switchgears and switchboards out of current economic (trade developments brought by the ASEAN integration) developments can compensate with the rise of prices.

External Factor Evaluation (EFE) Matrix

Table 1
The EFE Matrix

	Opportunities	Weight	Rating	Weighted Score
1.	Strong demand for switchgear product brought by increase necessity for alternative energies	0.20	3	0.6
2.	Increasing potentials to participate in the regional and global trade through ASEAN Integration	0.18	2	0.36
3.	Positive revenue potential for switchgear manufacturing brought by political developments	0.15	2	0.3
4.	Potential capital and manpower resources brought by ASEAN integration	0.10	1	0.1
	Threats	**Weight**	**Rating**	**Weighted Score**
1.	Potential reduced ability to capture untapped local markets due to shifting companies from the shrinking market of East Asia	0.05	2	0.10
2.	Loss of engineering talents to other countries for better employment opportunities	0.14	2	0.28
3.	Potential reduced barriers for new entrants brought by ASEAN integration	0.08	2	0.16
4.	Climbing prices of manufacturing equipment and materials due to inflation	0.10	3	0.30
	Total EFE Score	**1.00**		**2.20**

The weighted average of 2.20 indicates that CEC has slightly below average ability to respond to external factors. This could mean that the company's strategy is insufficient to capitalize on the opportunities or avoid external threats.

The Competitive Profile Matrix (CPM)

The following assessments are based on the knowledgeable intuition of the researcher from available data during the time the research has been conducted.

Table 2
The Competitive Profile Matrix

		CEC		AEPI		LJFI		TPBSI	
Critical Success Factors	**Weight**	**Rating**	**Score**	**Rating**	**Score**	**Rating**	**Score**	**Rating**	**Score**
Advertising	0.03	2	0.06	4	0.12	3	0.09	1	0.03
Market Penetration	0.07	2	0.14	4	0.28	3	0.21	1	0.07
Customer Service	0.11	4	0.44	2	0.22	3	0.33	1	0.11
Store Locations	0.08	3	0.24	4	0.32	2	0.16	1	0.08
R&D	0.05	1	0.05	3	0.15	4	0.2	2	0.1
Employee Dedication	0.05	1	0.05	3	0.15	4	0.2	2	0.1
Financial Profit	0.1	3	0.3	2	0.2	4	0.4	1	0.1
Customer Loyalty	0.12	4	0.48	3	0.36	2	0.24	1	0.12
Market Share	0.1	3	0.3	2	0.2	4	0.4	1	0.1
Product Quality	0.12	3	0.36	4	0.48	2	0.24	1	0.12
Top Management	0.12	4	0.48	3	0.36	2	0.24	1	0.12
Price Competitiveness	0.05	2	0.1	4	0.2	3	0.15	1	0.05
Totals	**1.00**		**3.00**		**3.04**		**2.86**		**1.10**

The scores reveal the relative strengths and weaknesses of each company in relation to the critical success factors set by the researcher. This, however, does not necessarily mean that the scores are the totality of the performance of each player but assesses each company on a given criteria. The results show that AEPI is on top, while TPBSI is last. CEC ranks second among the players.

Conclusion of the Industry Analysis

The current switchgear and switchboard manufacturing constitutes a small portion of the total industries in the country that serve a diverse range of industrial, utilities, commercial, and OEM markets. There are currently few local competitors in the market and the current economic developments around the country provide the market a positive potential growth in the coming years. Moreover,

the total competitive forces are weak, making the immediate industry attractive to the current players. Among the players assessed, CEC ranks second in CPM in terms of the set criteria. However, the weighted average of 2.20 also indicates an insufficient response of CEC to the external environment. There is a need for CEC to gain improvement on its strategies to maximize opportunities and mitigate or avoid imminent threats. Overall, the industry remains attractive.

COMPANY ANALYSIS

Controlgear Electric Corporation (CEC) is a manufacturing, engineering, and construction company in the field of electrical system integration of high-voltage substation to low-voltage distribution and process. Its projects and experiences span nationwide, from companies involved in power generation and distribution to industrial manufacturing and commercial establishments.

CEC's engineering and construction capabilities provide total engineering solutions of an electrical system through synergy and partnership among large multinational companies whose business is into power and automation such as Asea Brown Boveri (ABB), Siemens, Rockwell Automation, Schneider, and General Electric.

In the manufacturing business, CEC has been recognized as the preferred Original Equipment Manufacturer (OEM), along with contractors of ABB, Siemens, Rockwell Automation, Schneider Phils., and General Electric (GE) (CEC, 2016).

Brief history. Starting from its humble beginnings in a small lot with just a few skilled craftsmen and young aspiring employees, CEC has grown steadily through the years to become a well-structured organization keen on its goal to be the preferred

local market leader in producing quality sheet metal products, switchgears, and switchboard assemblies. It has now its own sheet metal fabrication and switchgear assembly facility, fully-equipped with modern machineries and staffed by engineers, designers, and skilled technicians. CEC has also been steadily gaining its reputation as a builder of industry standard-compliant switchgears and switchboard assemblies (CEC Company Profile, 2017).

Products and services offered. CEC manufactures safe, energy efficient, and environment-friendly electrical panels from switchgears, controlgears, protection, control, and other related electrical installation materials and accessories such as those mentioned in the industry analysis. On the service side, CEC offers engineering, procurement, and construction in the fields of substation integration and automation; process integration and automation testing and commissioning; modernization services (retrofitting works); and transformer oil regeneration activities.

Customers. Over the years, CEC has continued to identify its market niche. The owner classifies the market into highly concentrated and low-concentrated markets. Highly concentrated markets are the commercial markets with varied competitors. High-rise and residential constructions are deemed highly profitable by most players. In contrast, the low-concentrated markets are the utilities, industrial, and OEM markets. In terms of time, money, and effort efficiencies, CEC takes its stand to remain in the low-concentrated market. Among its diverse customers include Iligan Light & Power, Inc., Pilipinas Shell Petroleum, San Miguel Corporation, and ABB, Inc.

CEC Organization. CEC is a family corporation led by the spouse proprietors. The organization is composed of eight departments, namely, Sales and Marketing, Engineering, Production, Quality Assurance and Testing (QAT), Logistics, Administration and Finance, Information and Communications Technology (ICT), and Quality Management System (QMS). The company appears to be almost flat and lean in terms of leadership structure. Currently, six out of eight managerial positions are led by

the members of the family.

The organization is composed of around 80 personnel of which majority or around 80% are male due to the labor-intensive nature of activities. Also, majority of the population are in their mid-20s and 30s, depicting that the organization has a pool of young manpower. Similar job positions exist only at the production (technicians and operators), logistics (transport drivers), and engineering (design and estimation), while the rest are maintained by just a single-person position.

Three managerial positions (Engineering, Production, and QAT) are handled by a single person such as one of the sons of the proprietors. A section of sales and marketing, as well as that of administration and finance, is managed by the sister-in-law of the president and the vice-president, respectively.

Also, from the managerial structure, it can be assumed that the company might become at risk of losing leadership control in the absence of any of the family members handling the positions. However, this can be mitigated if the company would solidly structure a succession planning activity. In addition, at the supervisory and rank-and-file levels, the personnel are cross-trained from one position to another to ensure that these levels will not be greatly affected by manpower turnovers and downtime resulting in lack of personnel. This company strategy of cross-training also allows HR to have enough time for replacement should an immediate displacement or turnover of manpower occurs.

Strengths and Weaknesses

Strengths

1. Twenty-one years of expertise in the industry. With more than two decades of experience in the industry and the ability to capture a large portion of the market with its lean and young manpower, it can be assumed that CEC can survive its counterparts if it will perform in a progressive and constant phase.

2. Pursuit of the less concentrated market. The current strategy of going against the current in terms of market niche selection is perceived to enable CEC to increase its advantage over revenue generation.

3. Ensuring employee displacement and turnover buffers through cross-training at the supervisory and rank-and-file levels. The company, being lean, has managed to develop a strategy to maintain it by training personnel in all aspects of company operations. Thus, in cases where a position is vacant, the trained employee can fill in to perform the task.

4. Although the earnings are fluctuating, the company's operations have been yielding a positive bottom line (sustained income). Evidence to this is the financial institutions' grant of clean loans to the company. This means that on the part of the bank, they believe that the company will be able to return the loan because of sustained operations.

5. In relation to the financial institutions' grant of clean loans, the company is stable because it has very small to no long-term liabilities. The noncurrent liabilities only refer to the amortization due for the service vehicles to be settled for more than a year.

Weaknesses

1. Risk of losing leadership control at the managerial level when a family member leaves. Since the knowledge and transfer of experience at the upper level position is focused on the owner's family members, a loss of a key member would entail a challenge for a nonmember to get trained and take over the position. However, this can be mitigated by the President's plan in terms of structuring succession for the critical positions that have no backup manpower.

*2. Risk of young employees looking for greener pastures***.** It was mentioned in the industry analysis that the company experiences a threat of losing experienced engineers and other skilled and professional employees amidst the inviting opportunities to work abroad. The young age of the population can mean high turnover, but this can also be mitigated through better employment package and other programs to increase employee retention.

3. Risk of losing knowledge-based resource due to potential employee turnovers. It is a general fact that not all employees doing the same work at the same level are of equal skills and capabilities. This can be linked to the concept that not everyone being cross-trained can capture the same level of understanding and learning at the same pace with his/her counterparts. Thus, should a highly skilled employee leave the job with somebody who is not as knowledgeable and as skilled as him/her, it can hamper the operations by reducing productivity level. However, this can be mitigated through proper preservation of knowledge such as the use of process documentation to ensure that even at the high turnover

rate, the business process could still continue.

4. Insufficient cost control measures for operations. The company's lack of cost control for activities like monitoring of production reworks and its weak credit and collection policy contribute to the unstable financial performance of the company.

5. Lack of production planning. There is also an insufficient production planning where the limitations of the capacity of production plant to accommodate everything is overlooked.

6. High manpower turnover. Exit interviews are not given full attention to address employee engagement and satisfaction improvement. Currently, there are around 21% of the vacancies in the company that could have been reduced by addressing the concerns and recommendations of the resigning employees.

7. Loss of check and balance in decision making due to the internal structure of the company. The leaders might have reduced their grip on the business due to rigid decision making that may have overlooked some aspects that are known to the members of the team.

Internal Factor Evaluation (IFE) Matrix

Table 3
The IFE Matrix

Strengths	Weight	Rating	Weighted Score
1. 21 years of expertise in the industry	0.10	3	0.30
2. Pursuit of the less concentrated market	0.15	4	0.60
3. Ensuring employee displacement and turnover buffers through cross-training at the supervisory and rank and file levels	0.10	3	0.30
4. Though the earnings are fluctuating the company's operations	0.12	3	0.36
5. In relation to the financial institution's grant of clean loans, the company is stable in a sense that it has very small to no long-term liabilities	0.18	4	0.72

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Weaknesses	Weight	Rating	Weighted Score
1. Risk of losing leadership control at the managerial level when a family member leaves	0.10	2	0.20
2. Risk of young employees in looking for greener pastures	0.06	2	0.12
3. Risk of losing knowledge-based resource due to potential employee turnovers	0.04	2	0.08
4. Insufficient cost control measures for operations	0.02	1	0.02
5. Lack of production planning	0.04	2	0.08
6. High manpower turnover	0.06	2	0.12
7. Loss of check and balance in decision making due to internal structure of the company	0.03	1	0.03
Total IFE Score	**1.00**		**2.93**

The weighted average of 2.93 indicates that CEC has a slightly above average ability to respond to internal factors. This means that the company has a slightly strong internal strategy.

Strategic Issues Facing the Firm

Overall, CEC has slightly above average internal position at a weighted average of 2.57. Currently, the company faces the following strategic issues: lack of succession planning, significant manpower turnovers, risk of losing knowledge-based resources, insufficient cost control measures, and loss of check and balance in decision making. The challenge for the organization is on how to maximize its strengths to turn around its weaknesses as additional source of strengths.

Objectives

Strategic objectives. The current strategic objective of CEC is to gain better market share through product development, in partnership with modular panel builder CUBIC Module System in Denmark. It also aims for market penetration through establishment of additional sales market networks in northern and southern regions of the Philippines by hiring additional sales personnel to cover the areas.

STRATEGY

Vision and Mission (Current and Proposed)

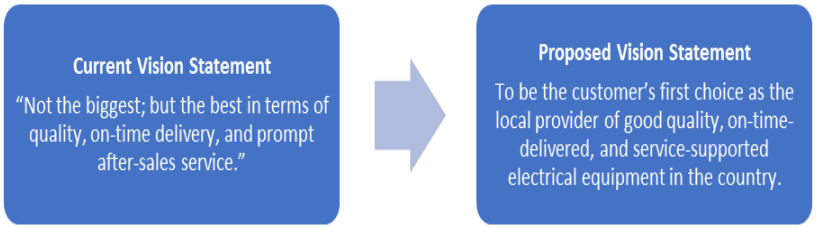

Figure 2. Current and proposed CEC vision statements.

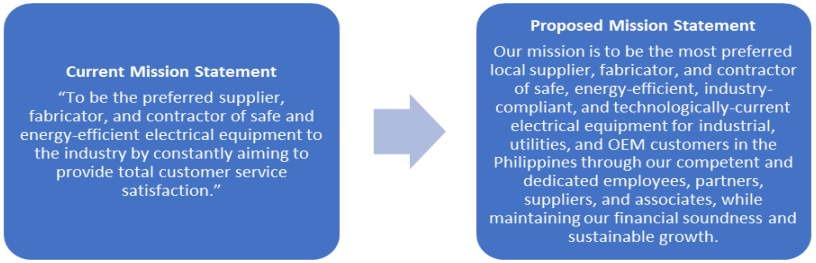

Figure 3. Current and proposed mission statements.

Financial objectives

The current financial objective of CEC is to achieve a sales quota amounting to P180 million for 2017. In 2015 and 2016, the company targeted to achieve P125 million and P150 million, respectively. Based on the 20% increment, it is assumed that its next objective is to achieve P216 million, P259 million, P311 million, P373 million, and P448 million, respectively in the next five years.

The SWOT Matrix

Table 4 shows the SWOT Matrix of the company. Opportunities 1, 2, 3, and Strength 1 combinations and

Opportunities 1,3, and Strength 2 combinations of the SWOT matrix also indicate a product development and market penetration bstrategy for CEC to maximize its current capabilities.

Table 4
The SWOT Matrix

	STRENGTHS S1: 21 years of expertise in the industry S2: Pursuit of the less concentrated market S3: Ensure employee buffers S4: Though the earnings are fluctuating the company's operations have been yielding to positive bottom line (sustained income) S5: In relation to the financial institution's grant of clean loans, the company is stable in a sense that it has very small to no long-term liabilities	WEAKNESSES W1: Risk of losing leadership control at the managerial level when a family member leaves W2: Risk of young employees in looking for greener pastures W3: Risk of losing knowledge-based resource due to potential employee turnovers W4: Insufficient cost control measures for operations W5: Lack of production planning W6: High manpower turnover W7: Loss of check and balance in decision making due to internal structure of the company
OPPORTUNITIES O1: Strong demand for switchgear product brought by increased necessity for alternative energies O2: Increasing potentials to participate in the regional and global trade through ASEAN Integration O3: Positive revenue potential for switchgear manufacturing brought by political developments O4: Potential capital and manpower resources brought by ASEAN integration	O1,O2,O3,S1: Product Development Maximize industry expertise and partnership with CUBIC Module system Denmark to develop type-tested products O1,O3,S2: Market Penetration Establish additional market networks in Northern (Baguio) and Southern Philippines (Laguna and CDO)	O1,O3,W1: Establish improved employment terms such as offering of compensation packages with incentives for every additional years of tenure in the company O2,O3,W3: Establish document database facilities to ensure preservation of knowledge-based resource O1,W1: Establish program for contingency succession planning

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THREATS T1: Potential reduced ability to capture untapped local markets due to shifting companies from the shrinking market of East Asia T2: Loss of engineering talents to other countries for better employment opportunities T3: Potential reduced barriers for new entrants brought by ASEAN integration T4: Climbing prices of manufacturing equipment and materials due to inflation	T3S5 - The company can borrow money from banks to buff for investment expenses and use the proceeds to pay for the loan and maintain good leverage T2S2 - Remain at the less concentrated market where competitors are not saturated and lesser pressure are in place T1S3 - Cross-train technicians for the engineering jobs that does not require license to perform	T1W3 - Document the Operational Activities into a procedure to preserve the knowledge and ensure continual operations T1W2 - Offer competitive employment packages that are family-/career-/work-life-balance-oriented to enhance engineering talents retention

Present Strategies

CEC currently has its product development and market development in place. The company has an on-going study on establishing northern and southern sales networks by hiring sales personnel in the identified regions – Baguio, Cagayan de Oro, and Laguna as part of its initial market development plan.

In 2016, the Laguna sales network had been established to capture markets in the nearby locations. Cagayan de Oro sales network is being established while Baguio remains under study. Also, as part of its product development plan, the company established a partnership with a modular panel builder in Denmark under the name CUBIC to offer and/or introduce standard-compliant products to a larger market.

Proposed Strategies

Given the outcomes of the strategy analysis and selection and considering the current generic and present strategies of CEC, it is hereby proposed that product and market developments be pursued considering the current capabilities and limitations of the company.

IMPLEMENTATION

Analysis of the Vision and Mission

This section examines the unique purpose and reason for existence of CEC through its current mission and vision statements and proposes necessary improvements to further aid in the formulation, implementation, and evaluation of its strategies and provide better direction for all its planning activities.

Vision statement. CEC's current vision statement presents its perception of the firm's standing in the market. It recognizes the current presence of some local and multi-national counterparts who have abundant resources and capabilities but claims its dominance over them. However, based on the technicalities of its vision statement structure, it has not yet answered explicitly what the company wants to become. Thus, a proposed vision statement is created.

Mission statement. CEC mission statements are analyzed and evaluated based on the nine components of an effective mission statement. The current CEC mission statement was improved due to lack of five characteristics of the nine components: customers; markets; technology; concern for employees; and concern for

survival, growth, and profitability (see Table 5). In the proposed mission statement, all components are included to make it more inspiring, enduring, informative, and motivational for its stakeholders to act.

Table 5
Alignment of the Current and Proposed CEC Mission Statement

Components of Mission Statement	Mission Statement Alignment	
	Current	Proposed
Customers	No	Yes
Products or services	Yes	Yes
Markets	No	Yes
Technology	No	Yes
Concern for survival, growth, and profitability	No	Yes
Philosophy	Yes	Yes
Self-concept	Yes	Yes
Concern for public-image	Yes	Yes
Concern for employees	No	Yes

Conclusion of the Vision and Mission Analysis

It is therefore concluded that the current CEC vision admission statements lack certain elements. These must be revised according to the technical structures of an ideal vision and mission to achieve a clearer direction for the business.

The McKinsey 7S Framework

This section examines how well CEC is positioned to achieve its intended objectives. The McKinsey 7S framework is

utilized to verify whether all sections of the company work in harmony or some sections need to be aligned to improve its performance. This model consists of seven internal interdependent aspects which are categorized as either hard or soft elements.

Shared values. CEC has its own Code of Conduct established by its president to promote its guiding principles and core values. This informs employees about appropriate behavior in the workplace and in all its business dealings to ensure the company's continued growth and development. It applies to all its employees regardless of rank and position. The president believes that among all factors that make CEC successful, good values are the most important and their strongest foundation.

Strategy. CEC's current strategy is market development and product development.

Structure. CEC has a functional structure of organization. It has a lean and almost flat organizational structure that consists of top management, managers, supervisors, and rank-and-file workers and employees. At the time of the study, the company had eight departments: sales and marketing, engineering, production, quality assurance and testing, logistics, finance and administration, information and communications technology, and quality management system. The company had to undergo frequent reorganization initiated by the president to adapt to the changing needs of the market. Currently, new groups such as the planning team and field servicing team are being formed.

Systems. CEC has a set of documented processes and procedures for most of its functional departments in compliance with the requirements of ISO 9001:2015 Quality Management System Standard. Each aspect of the company's business process, from receiving customer inquiry to delivery of products, has its own set of processes and procedures. Currently, the company is conducting

continuous documentation and improvements of its system. Some of its systems are backed up by software that are either generated in-house or outsourced. All systems are controlled by the president with certain delegations per process owner. These are monitored and evaluated based on the reports submitted by each department for the president's reference to facilitate decision-making.

Style. The company is managed by the top management through a classic style of leadership. Its approach is autocratic style. The president takes control over most aspects of the work, taking full authority and responsibility. At the managerial and supervisory levels, the leadership style varies, and decisions are anchored on the orders of the president. All finalized decisions are cascaded from the higher positions down to their members and are expected to be promptly implemented.

Skills. Each department is occupied by employees whose educational backgrounds and/or skills are related to their positions. There are also employees who were appointed because of their attained experiences and capabilities. However, challenges arise when the requirements of the management cannot be attained by either of the employees at the desired timeline. There are little to no standard skills enhancement and training plans in place for personnel or department. There are performance evaluations but are not fully implemented across all levels of the organization. Competency assessment and key performance indicators are not yet established. Thus, there are gray areas on the capabilities and needed trainings of each worker to meet current and future needs of the company. An example of an activity affected is in reorganizations where there is no formal assessment of current skills and capabilities prior to appointment in a position. This renders the organization vulnerable to loss of consistent mastery of skills and inability to preserve or continually improve its current skills expertise. Hence, the skills aspect is also misaligned.

Staff. CEC is represented by its engineers in its sales and marketing, engineering, and quality assurance and testing team. Its production team is composed of various skilled workers in CNC operation, welding, powder painting as well as wiring and bus barring. The rest of its support group are a combination of college and vocational graduates (employees of logistics, finance and administration, quality management system, and information and communications technology). Currently, there are positions needed to be filled in its sales and marketing, engineering, production, finance and administration, and information and communications technology. There is also a consistent significant rate of manpower turnover across all departments to date. Although there is a continuous recruitment to fill in the headcount gaps, this remains insufficient as it slows down the current skills improvement and preservation of CEC employees.

Table 6
7S Alignment of the Present and Proposed Strategies of CEC

Features	Present Strategy	Alignment	Proposed Strategy
Shared Values	Integrity, commitment to quality, timely delivery, total customer service satisfaction, and challenging the status quo	Yes	Retain the current shared values
Strategy	Product and market development	Yes	Hold and maintain the current strategy
Structure	Hierarchical functional structure	No	Transition to matrix structure

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Systems	Available process and software systems for most departments	Yes	Retain the existing systems and search for continual improvement
Style	Autocratic style with a mix of other styles at small portions	No	Improve leadership involvement across the ranks
Skills	Diverse mix and levels of skills and competencies among departments	No	Establish a standard training program for skills enhancement
Staff	Continuous recruitment to fill in the manpower headcount gaps	No	Improve manpower compensation and rewards scheme

Conclusion

The current forces in the switchgear and switchboard manufacturing industry is attractive for current players like CEC. CEC's weighted average of 2.20 on its EFE and 2.93 on its IFE Matrices led to a position of hold and maintain strategy in its IE Matrix model. Along with the supporting outcomes of the SPACE and SWOT matrices, the current strategy of CEC to conduct market penetration and product development is further justified. Through the alignment of the company's 7S strategies and through financial projections, there is a need to balance the debt and equity funding and to establish additional sales networks.

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