Energy & Utilities

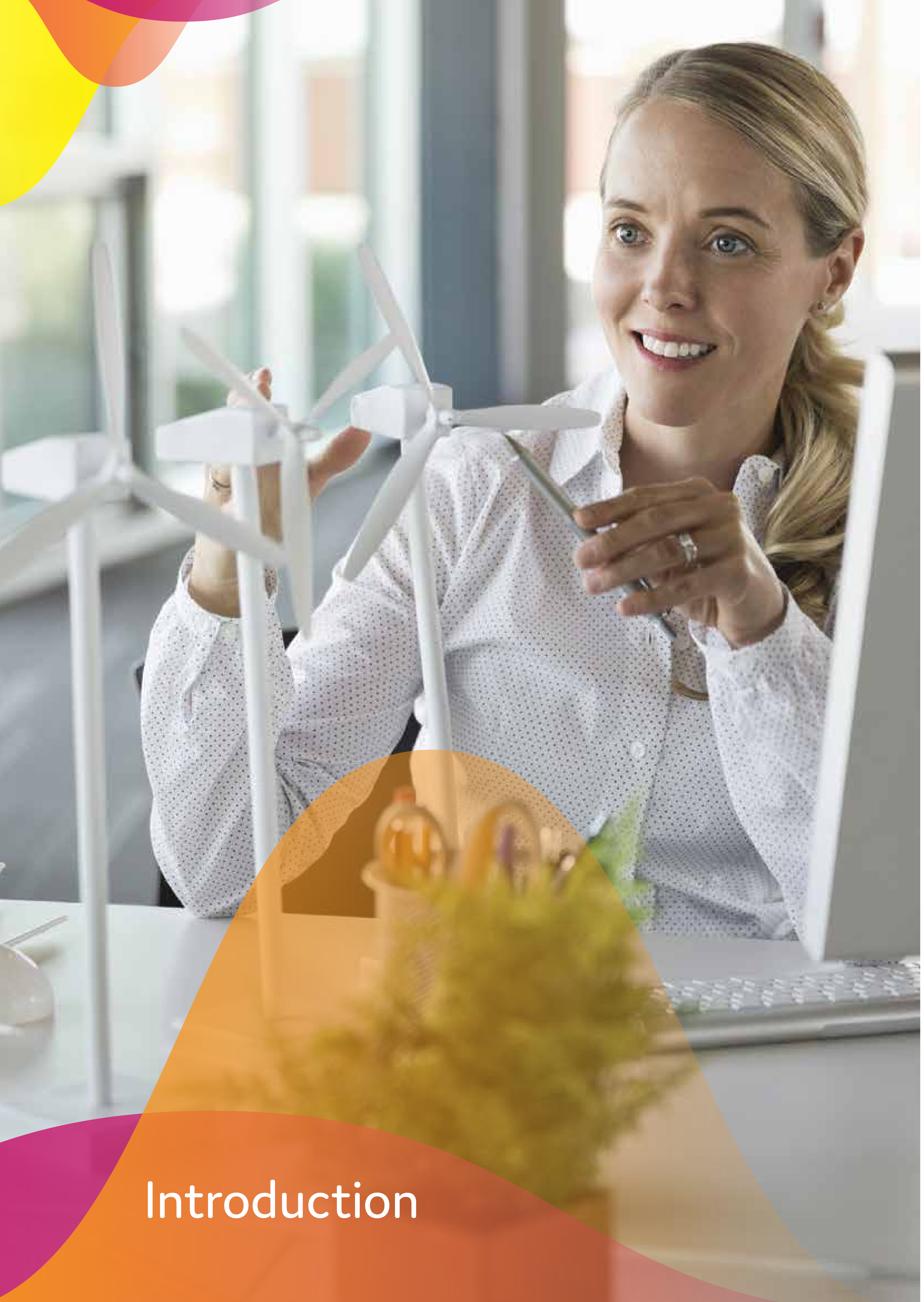
Explore. Empower. Energise

Market Outlook Report 2020

By Informa Markets

October 2019

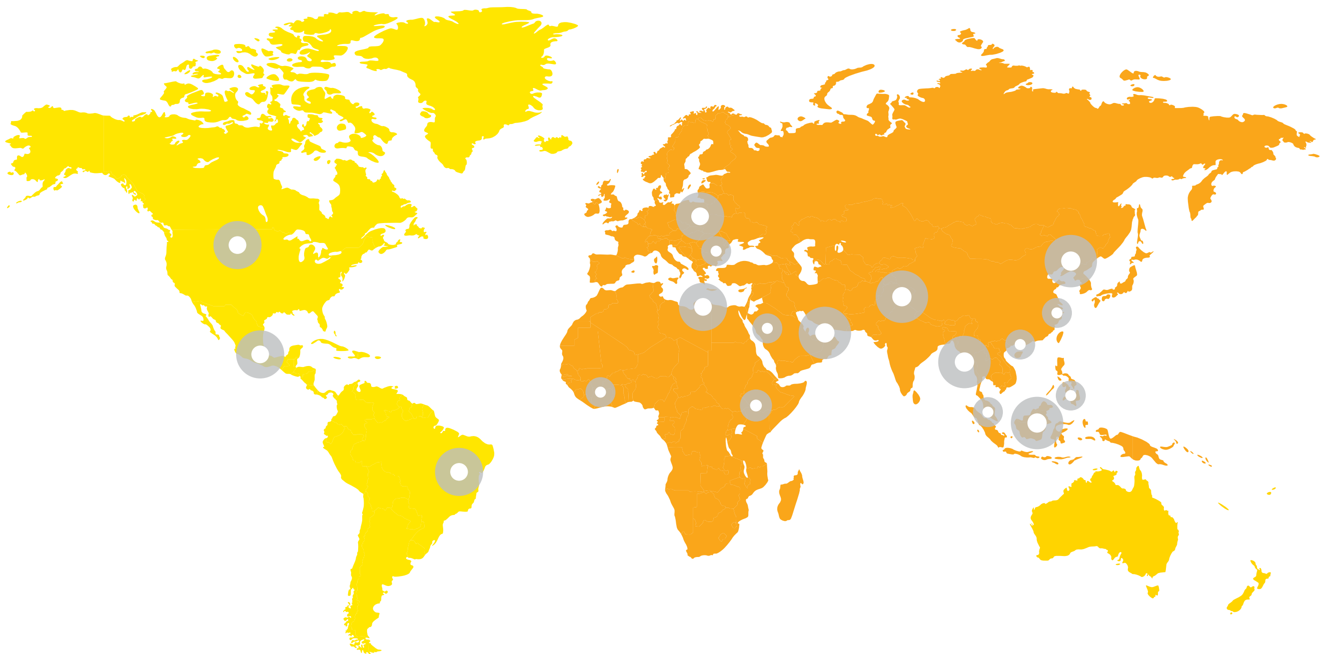
Contents



Introduction

Informa Markets Energy & Utilities Portfolio

Informa Markets expanded Energy & Utilities series of events has a major footprint in five continents with a calendar of flagship events including Middle East Energy in Dubai, Renewable Energy India and Electric and Power Indonesia. Through our industry leading portfolio, our goal is to consistently innovate, guide and educate the sector, not only over the course of the show days but throughout the year. Our unrivalled experience in bringing the global power industry together across various key markets allows us to evaluate the needs of our stakeholders on a regular basis, therefore ensuring our products offer the best possible return on investment.



Research Methodology

GRS Research & Strategy

GRS Research & Strategy is an international research company focused on research, analysis, and strategy for the exhibition and event industry, as well as visitor attraction. GRS is a partner of Explori® and holds the biggest data set of exhibition performance in the world, with data from over 1,300 public and trade shows.

Working along with event organisers, GRS collects insights to understand the performance of the market and the expectations for the future directly from professionals operating in these industries.

These insights can be used both as a tool to support strategic decisions for the show, as well as offer valuable insights to be shared back with the industry.

Why Exhibitions?

Exhibitions are a unique meeting place gathering a wide yet targeted audience within various industries. Rather than providing overall or general economic data, insights gained from exhibition data provide a more precise point of view from hundreds of professionals ranging from big multinational corporations to SME's. This type of data highlights key opportunities and trends, current performance as well as expectations for the future.

About the Survey

In conjunction with Informa Markets, GRS Explori devised a 5-minute survey that was conducted between July and September 2019. The survey was sent out to Informa Market's entire energy database, which includes leading exhibitions from the Middle East and North Africa (MENA) region.

The respondents were asked to share their experience, company profiles and current performance, regional and global outlooks, and trends for the future.

2,248
respondents

87.1%
international

12.9%
UAE

47%
mobile & tablet

53%
desktop

Regional Definitions

Africa

- Algeria
- Angola
- Benin
- Botswana
- Burundi
- Cameroon
- Central African Republic
- Chad
- Congo, Democratic Republic Of The
- Côte D'ivoire
- Djibouti
- Ethiopia
- Gabon
- Gambia
- Ghana
- Guinea
- Kenya
- Lesotho
- Liberia
- Libya
- Madagascar
- Malawi
- Mauritania
- Morocco
- Mozambique
- Namibia
- Niger
- Nigeria
- Rwanda
- Senegal
- Seychelles
- Sierra Leone
- Somalia
- South Africa
- South Sudan
- Sudan
- Swaziland
- Tanzania, United Republic Of
- Togo
- Tunisia
- Uganda
- Zambia
- Zimbabwe

GCC

- Bahrain
- Kuwait
- Oman
- Qatar
- Saudi Arabia

Asia

- Afghanistan
- Armenia
- Azerbaijan
- Bangladesh
- British Indian Ocean Territory
- Brunei Darussalam
- China
- Georgia
- Hong Kong
- India
- Indonesia
- Japan
- Kazakhstan
- Korea, Democratic People's Republic Of
- Korea, Republic Of
- Kyrgyzstan
- Lao People's Democratic Republic
- Macao
- Malaysia
- Maldives
- Mauritius
- Nepal
- Pakistan
- Philippines
- Russian Federation
- Singapore
- Sri Lanka
- Taiwan, Province Of China
- Tajikistan
- Thailand
- Turkmenistan
- Uzbekistan
- Vietnam

Middle East

- Egypt
- Iran, Islamic Republic Of
- Iraq
- Israel
- Jordan
- Lebanon
- Palestinian Territory, Occupied
- Syrian Arab Republic
- Turkey
- Yemen

Other

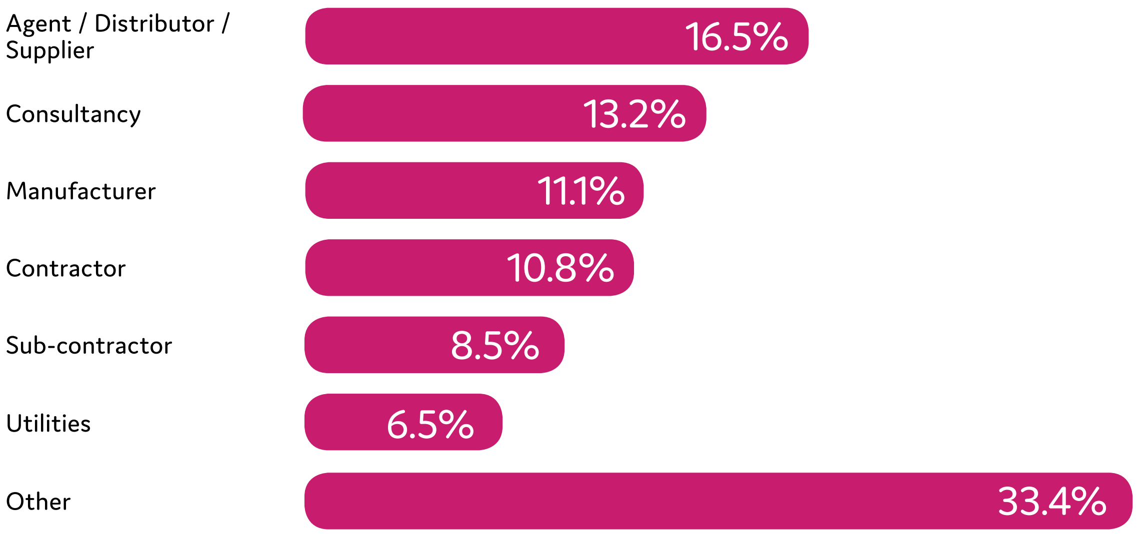
- Åland Islands
- Albania
- American Samoa
- Andorra
- Anguilla
- Antarctica
- Antigua And Barbuda
- Argentina
- Aruba
- Australia
- Austria
- Bahamas
- Belarus
- Belgium
- Bosnia And Herzegovina
- Brazil
- Bulgaria
- Canada
- Colombia
- Croatia
- Cuba
- Cyprus
- Czech Republic
- Denmark
- Estonia
- Finland
- France
- Germany
- Greece
- Guadeloupe
- Guatemala
- Guernsey
- Honduras
- Hungary
- Iceland
- Ireland
- Italy
- Jersey
- Latvia
- Liechtenstein
- Lithuania
- Luxembourg
- Malta
- Mexico
- Monaco
- Netherlands
- New Zealand
- Norway
- Peru
- Poland
- Portugal
- Romania
- Serbia
- Slovenia
- Spain
- Sweden
- Switzerland
- Ukraine
- United Kingdom
- United States
- United States Minor Outlying Islands
- Uruguay

UAE

- United Arab Emirates

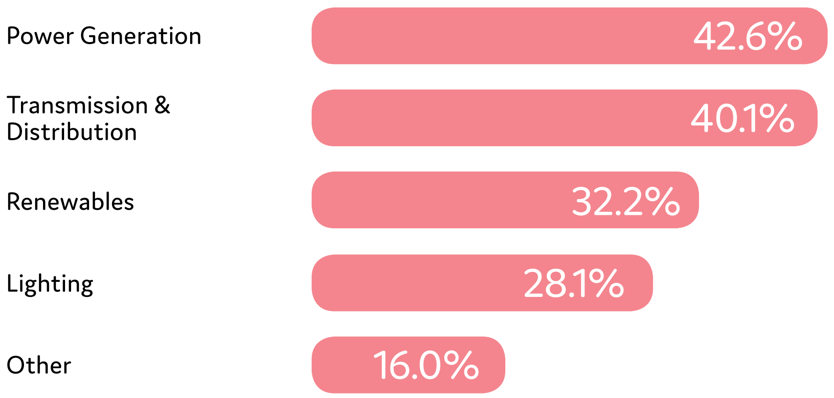
Respondents Profile

Nature of Business

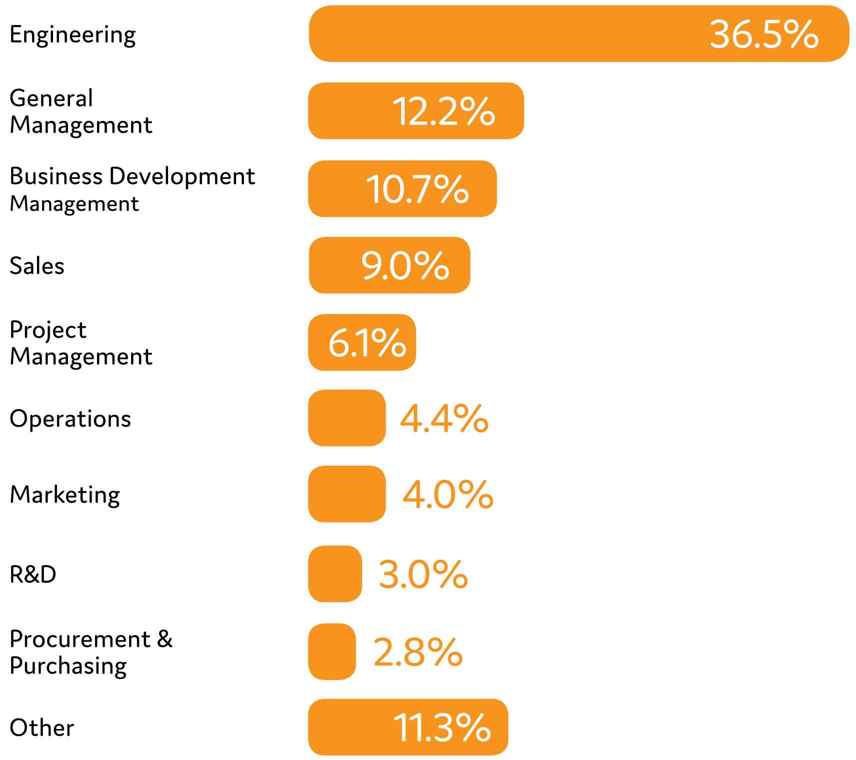


Within the Consultancy segment, more than 74% represented engineering, while the Contractor segment was split relatively equally between EPC / MEP / Main. The Sub-Contractor segment was represented respectively by electrical (62%), repair & maintenance (44.3%), mechanical (17.7%), instrumentation (16.1%), and other (9.9%)

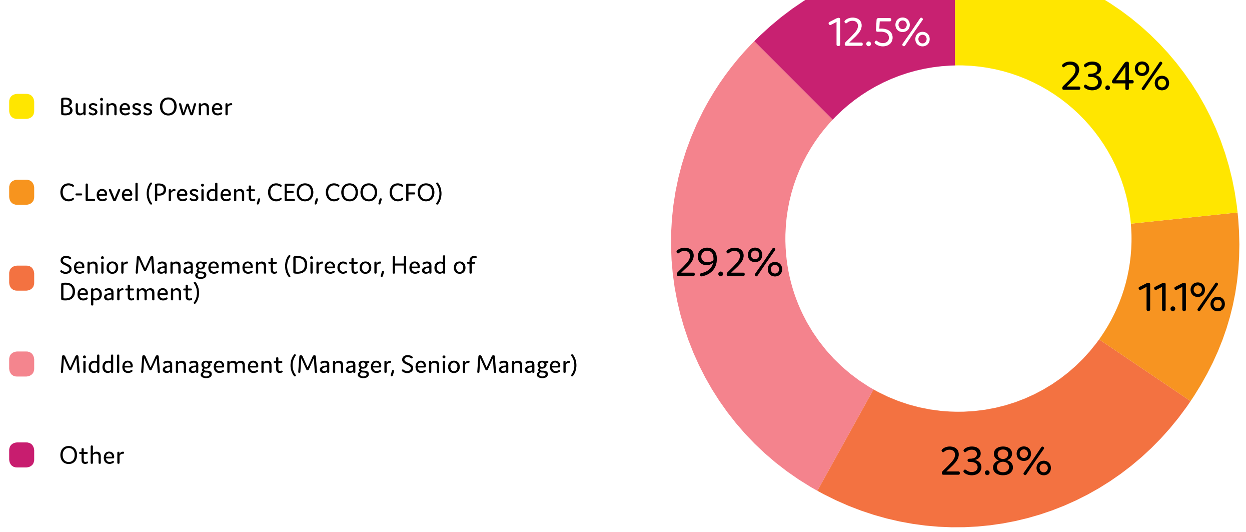
Sectors



Job Function

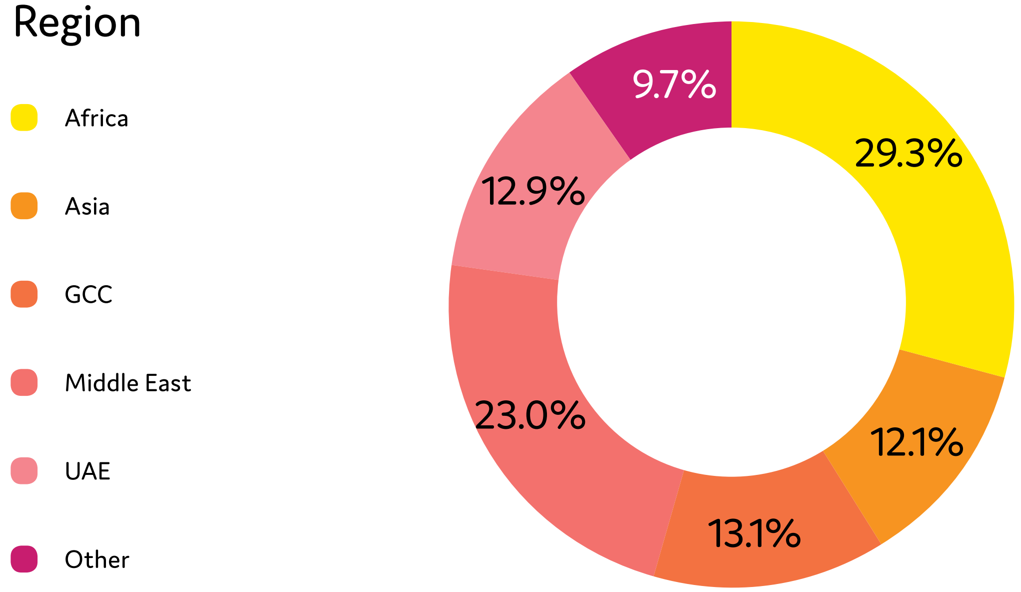


Job Title



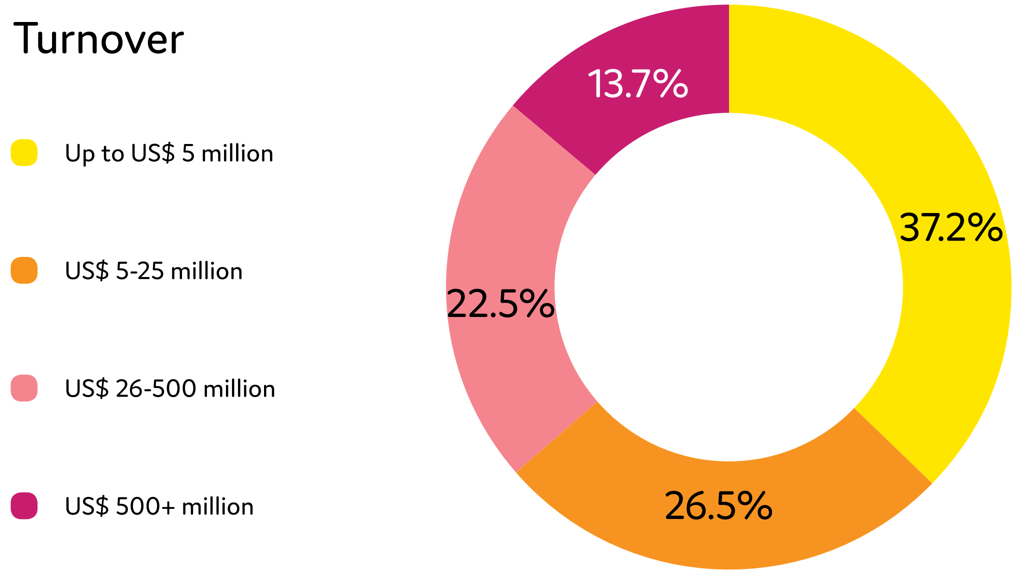
Within the Manufacturing segment, senior management represented 34.6% of attendees. Meanwhile, business owners (38.3%) made up the most significant representation in the Agents/Distributors/ Suppliers segment, and the largest representation in the Contractors segment came from middle management (31.1%).

Region



Out of the 29.3% that reported having their company headquarters in Africa, 22.3% and 16.5% had company headquarters located in Nigeria and Egypt, respectively. Similarly, 12.9% and 9.7% of respondents from the Middle East had company headquarters in the United Arab Emirates (UAE) and Saudi Arabia, respectively.

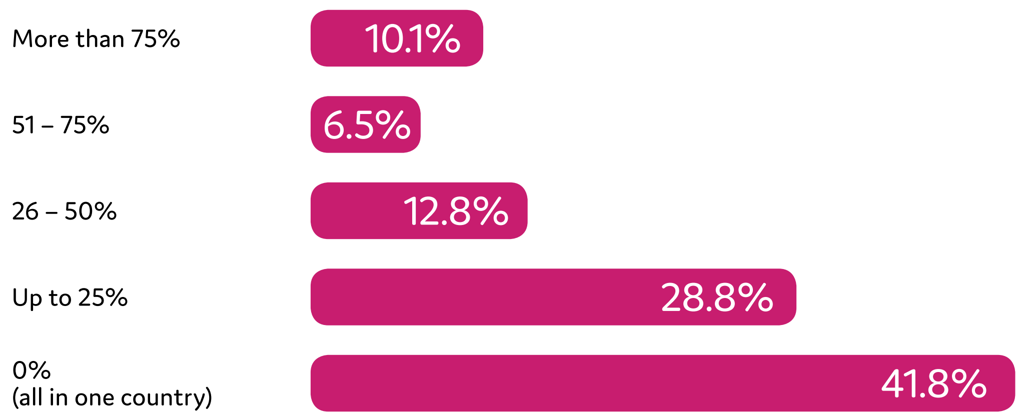
Turnover



Africa and the Middle East had the highest number of companies with a turnover of up to US$ 5 million at 49.8% and 45.4% respectively. The highest number of companies with a turnover of US$ 500+ million was reported in UAE (16.9%), followed by Asia (16.1%), GCC (15.2%), and others (35.2%).

Concerning the nature of business vs. turnover, 58.4% of Sub-Contractors and 51.9% of Consultancies reported a turnover of up to US$ 5 million. On the other end of the spectrum, 21.3% of Manufacturers, 12.2% of Contractors, and +/-10% of Agents/Distributors/Suppliers, Consultants, and Sub-Contractors reported an annual turnover of US$ 500+ million.

Export Percentage



In terms of export percentage vs. region, 55.4% of respondents from Africa reported that zero % of their revenue was generated outside the country in which their headquarters was located – the highest of those surveyed. This was followed by the GCC (46.3%), and Asia (39.6%).

Meanwhile, in terms of export percentage vs. nature of business, 52.4% of Sub-Contractors reported that 0% of their revenue is generated outside the country in which their headquarters is located, followed by 44.4% of Consultancy, 43.8% of Contractors, 42.3% of Agents/Distributors/Suppliers, and 21.3% of Manufacturers. The highest in its category, 20.5% of Manufacturers reported that more than 75% of their revenue is generated outside the country in which their headquarters is located.

Executive Summary

A Dual Challenge

Meeting rising energy demand while shifting to a Low-Carbon energy system

Energy systems around the world are going through rapid transitions that affect many aspects of our lives. The continuation and acceleration of these shifts will initiate a global energy transition that will bring about significant changes to the way we fuel our cars, heat our homes, and power our industries in the coming decades. Many of the trends that shape the future of energy are in reality, driven by a multitude of local trends, which will occur with different magnitudes and speeds in specific geographies and sectors. There are also many uncertainties in the current climate of energy transition, such as shifts in the patterns of energy demand, supply and consumption.

According to the **2019 Global Energy Perspective** from McKinsey, there are five key insights into the energy landscape that will occur in the next few years:

1. **Global primary energy demand plateaus around 2030** after more than a century of rapid growth, primarily driven by the penetration of renewable sources in the energy mix.

2. **Electricity consumption doubles until 2050,** while renewables are projected to make up over 50% of generation by 2035.

3. **Gas continues to grow its share of global energy demand – the only fossil fuel to do so - and then plateaus after 2035.** It is particularly under pressure in the power sector, where the share of total demand drops 33% from 41% between 2015-2050.

4. Despite stable historical growth of more than 1% pa, **oil demand growth slows down substantially, with a projected peak in the early 2030s.**

5. **Global energy-related emissions will peak in 2024 and decline by around 20% by 2050,** mostly driven by the decline of coal usage in the power sector.

Industry Growth

US$ 260 billion to be Invested in the MENA region's power sector from 2018 to 2022

Utilities and governments in the MENA region are under pressure to meet growing energy demands at a lower cost and with increased efficiency. Huge investments are being made in the region's power sector, primarily driven by a rapidly growing population and urbanisation, rising income levels, and increased activities in industrial and construction.

There are lucrative opportunities for industry stakeholders to increase renewable energy production, and invest in the long-term competitiveness and security in the energy sector. Diversifying the power generation mix is high on the regional agenda with an anticipated US$ 35 billion in renewable energy investments per year by 2020.

The market for critical and standby power generation is also experiencing an upsurge as the MENA region continues to diversify its economy through ambitious construction projects in areas such as healthcare, real estate, and hospitality. Meanwhile, the market for diesel generators in the Middle East is expected to grow at a compound annual growth rate of 4.3% through to 2023.

As the region works hard to modernise its infrastructure and transform its cities into smart cities, there is a high demand for energy-efficient lighting systems that provide better illumination while consuming less power. From green-energy startups to established power giants, the strategic focus and business direction is now geared towards introducing transformative lighting technologies to make inroads into the global smart lighting market projected to be worth US$ 23.6 billion by 2024.

Digitalisation is the future of the power industry in the Middle East. With the World Economic Forum anticipating US$ 1.3 trillion of value to be captured globally by 2025 through digital transformation, the industry continues to shift to a digitalised landscape that offers tremendous growth opportunities for those willing to become digital champions of the global power community.

MENA Energy and Utilities Market in Numbers

Renewable energy investments of **US$ 35 billion** per year in the MENA region by 2020

MENA power capacity to expand by **6.4% per year** to 2022

Infrastructure investment of **US$ 56 billion per year** in the MENA region

MENA smart lighting market to reach **US$ 2.1 billion** in 2023

MENA region expected to invest upwards of **US$ 76 billion** in nuclear capacity by 2030

Smart grid investments in the MENA region to reach **US$ 17.6 billion** by 2027

The market for diesel generators in the MENA region is expected to grow at **CAGR of 4.3%** to 2023.

Digital optimisation can boost profitability by **20% - 30%**

Market Drivers and Trends

Renewables are moving from mainstream to preferred energy sources
This trend is enabled by price and performance parity, the ability to balance the grid and emergence of new technologies.

Growing sources of cyber risk in the power sector
Threats continue to evolve, requiring even greater efforts to manage risk.

IoT platforms are becoming a disruptive force in the lighting industry
Through integrated IoT platforms, invaluable data can be mined to reduce costs and energy consumption.

Energy storage will disrupt consumption patterns
Low-cost energy storage will set the tone for innovative storage solutions and the use of smart energy devices.

The growth of Energy 4.0
Digitalisation presents opportunities to establish new business models and sustainable strategies for producing and delivering energy.

Connected technology means connected customers
The empowered customer base will demand redefined business models to address the heightened customer calls for flexibility.

Market Challenges

As power companies, equipment manufacturers, service providers and end-users seek to position their businesses for the future; the industry will need to resolve issues around:

- Energy demand
- Penetration of renewable energies
- The degree of commitment to CO_2 emissions reduction
- The different cost of fuels and generation mix infrastructure
- Coal: an effective (cheap) solution?
- The increase in shale gas production
- Nuclear power upgrading or decommissioning
- Pressures to reduce power prices
- Ancient grid infrastructure and the need to adapt

Global Energy Transformation

A Roadmap To 2050

The International Renewable Energy Agency's (IRENA) comprehensive roadmap to global energy transformation examines technology pathways and policy implications to ensure a sustainable energy future.

The report highlights, in particular, how electrification with renewable power can start to reduce energy-related carbon dioxide (CO_2) emissions immediately and substantially. The pairing is also getting cheaper than fossil fuel-based alternatives, lowers local air pollution and increases health benefits, results in positive socio-economic benefits and will be a key enabler to build a connected and digitalised economy and society.

It is estimated that by 2050, electricity could become the central energy carrier, growing from a 20% share of final consumption to an almost 50% share, and, as a result, gross electricity consumption would more than double. Renewable power will be able to provide the bulk of global power demand (86%).

With regards to energy transition, the report highlights that for every US$ 1 spent for the energy transition, there would be a payoff of between US$ 3 and US$ 7, or, put in cumulative terms over the period to 2050, a payoff of between US$ 65 trillion and US$ 160 trillion.

"The global energy transformation is happening, driven by the dual imperatives of limiting climate change and fostering sustainable growth. An unprecedented decline in renewable energy costs, new opportunities in energy efficiency, digitalisation, smart technologies and electrification solutions are some of the key enablers behind this trend."

Francesco La Camera,
Director-General, IRENA

According to the roadmap, the level of additional investments needed to set the world on a more climate-friendly path above current plans and policies is US$ 15 trillion by 2050. Overall, total investment in the energy system would need to reach US$ 110 trillion by 2050, or around 2% of the average annual gross domestic product (GDP) over the period.

Current plans and policies result in a similar level of annual emissions in 2050 compared to today, which risks putting the world on a pathway of 2.6 degrees Celsius of temperature rise or higher already after 2050. The report shows that emissions would need to be reduced by around 3.5% per year from now until 2050, with continued reductions after that time. Energy-related emissions would need to peak in 2020 and decline after that.

The report also highlights that any energy transition roadmap will interact with the evolution of the socio-economic system upon which it is deployed, producing a series of outcomes that can be understood as the socio-economic footprint. The degree to which this footprint includes benefits or less favourable outcomes depends on the synergies between the energy transformation and the evolution of the socio-economic system.

Overall, the roadmap stresses that systemic innovation is crucial as a key enabler for the energy transition. Countries need to devote more attention to enabling smarter energy systems through digitalisation, through the coupling of sectors via greater electrification, and by embracing decentralisation trends. This innovation also needs to be expanded beyond technology and into markets and regulations as well as new operational practices in the power sector and business models.

Tech Trends 2019

Power And Utilities Perspective

Tech Trends 2019: Power and Utilities Perspective, a recent report by Deloitte, examined the energy and utilities industry's ability to embrace disruption. For power and utilities companies, the pace of technology change brings a nonstop stream of questions, challenges, and opportunities. Meanwhile, change is also a constant in areas like regulation, external threats, and consumer expectations.

Changes in technology are changes to this industry. New tools can help enhance the efficacy, resilience, and security of distribution grids while deriving new insights from smart meters. Customer relationships can become more personalised and more cost-efficient at the same time. New technology brings new talent challenges, but it can also enhance training and certification across every role.

To carry out their mandates, Deloitte identified the top technology trends in the industry that leaders need to understand to remain a step ahead of them.

1. **Macro technology forces at work.**

   As distributed generation and storage technologies gain traction, the grid is moving from unidirectional distribution toward multi-directional networking with millions of buyers and sellers. Pilot technologies include Blockchain for secure financials, IoT to monitor the grid, and AI/data science to predict supply and demand. Integrating and leveraging these approaches can transform the industry.

2. **AI-Fueled organisation**

   Leading organisations are harnessing AI's full potential for data-driven decision making and generating valuable insights. To become a true "AI-fueled" organisation, a company needs to find AI's place in the mission, rethink its talent, focus on human and machine interaction in its environment, and deploy machine learning across core business processes and enterprise operations.

3. **NoOps in a serverless world**

   Pressure to limit O&M costs and changes in regulatory environments are allowing utilities to practice DevOps and containerisation, using the cloud to build platform-agnostic IT solutions that maximize flexibility. This includes the development of energy efficiency portals and customer self-service applications that are seamless across services and geographies regardless of the underlying infrastructure.

4. **Connectivity of tomorrow**

Advanced networking offers a continuum of connectivity that can drive the development of new products and services or transform inefficient operating models. Sophisticated grid control and monitoring assets, as well as distributed generation, are decentralising grid structures from a traditional hub model to a more complex peer-to-peer model. As control and monitoring latency increase exponentially, communication with and between edge devices via FANs and WANs becomes faster and more effective. Practical benefits can include collecting and sharing information such as air quality status, or re-sequencing traffic signals.

5. **Beyond marketing: Experience reimagined**

Today's astute customers expect highly personalised, contextualised experiences. To deliver them, leading chief marketing officers are looking inward to closer partnerships with their own CIOs and a new generation of marketing tools and techniques powered by data-enabled emerging technologies. One utility has found it can aggregate and sell AMI load profile data to a ZIP-code level. This allows segregation of customer marketing based on energy consumption. Customer data can propel micromarketing - approaching customers with individual styles of communication, based on their consumption patterns, which can reduce acquisition and retention cost while enhancing relationship longevity.

6. **DevSecOps and the cyber imperative**

To strengthen their approaches to cyber security and cyber risk, forward-thinking organisations are embedding security, privacy, policy, and controls into their evolved IT delivery models. DevSecOps fundamentally transforms cyber and risk management from compliance-based activities (typically undertaken late in the development lifecycle) into essential framing mindsets that help shape system design from the ground up. DevSecOps helps utilities build cost-effective grid defences.

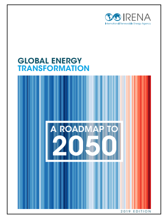
7. **Beyond the digital frontier: Mapping your future**

Developing a systematic approach for identifying and harnessing opportunities born of the intersections of technology, science, and business is an essential first step in demystifying digital transformation, and making it concrete, achievable, and measurable. To reduce the cost of power line inspections, utilities are exploring the use of drones to gather unstructured data. Operators use enhanced visualisation and interfaces to operate the drones as they gather vast amounts of data for further analysis that can recognise conditions such as vegetation encroachment, downed power lines, smoke, or pipeline maintenance issues.

References

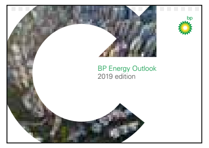
Tech Trends 2019: Power and Utilities Perspective, Deloitte

https://www2.deloitte.com/content/dam/Deloitte/global/Documents/Energy-and-Resources/gx-power-future-global-power-sector-report.pdf



IRENA: Global Energy Transformation: A roadmap to 2050 (2019 edition)

https://www.irena.org/publications/2019/Apr/Global-energy-transformation-A-roadmap-to-2050-2019Edition



Global Energy Perspective 2019: Reference case. January 2019, Energy Insights by McKinsey.

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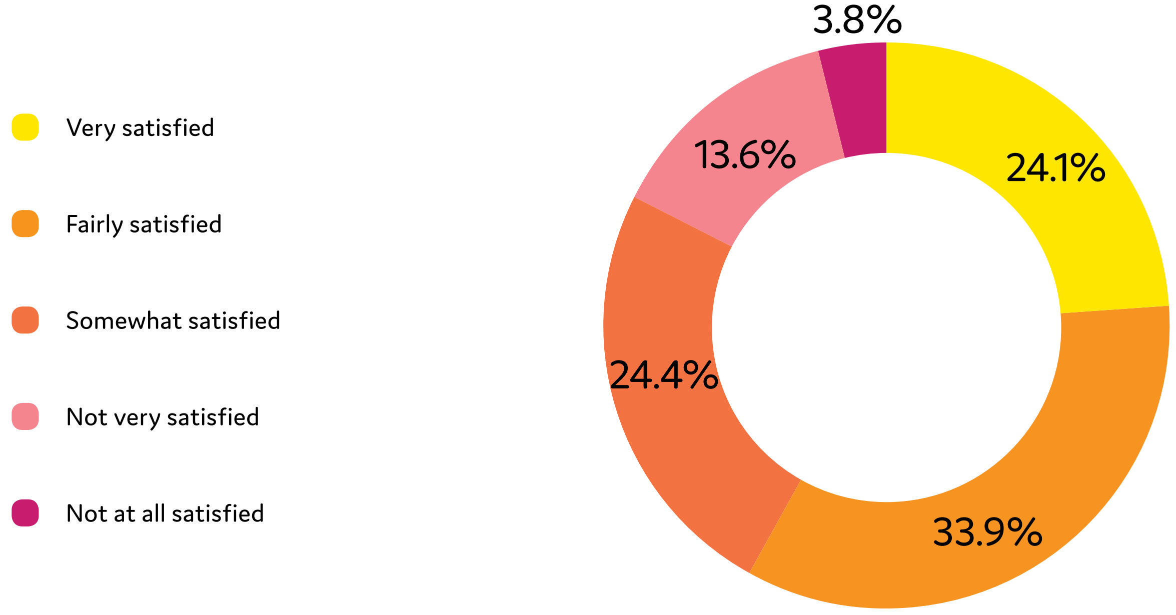
https://www.iea.org/statistics/

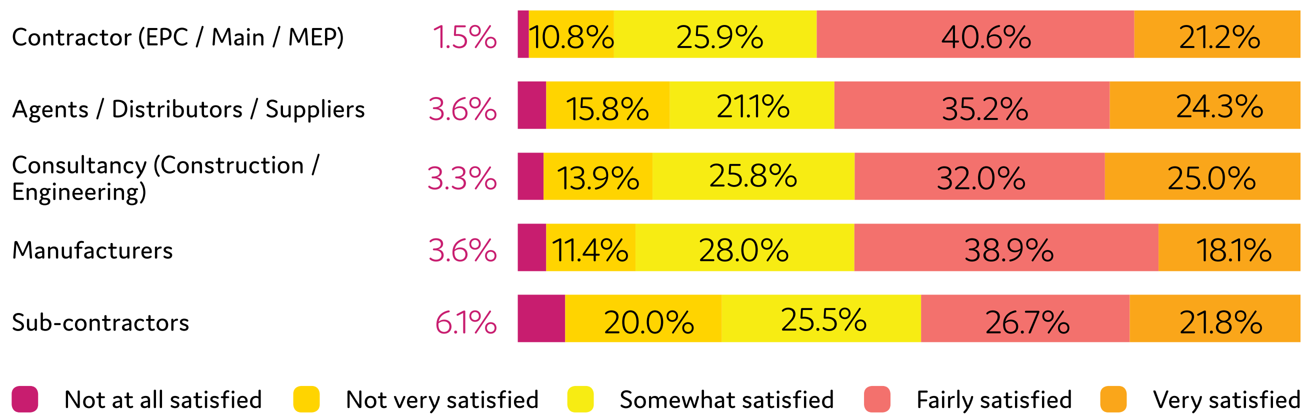
Confidence & Performance

Company Performance



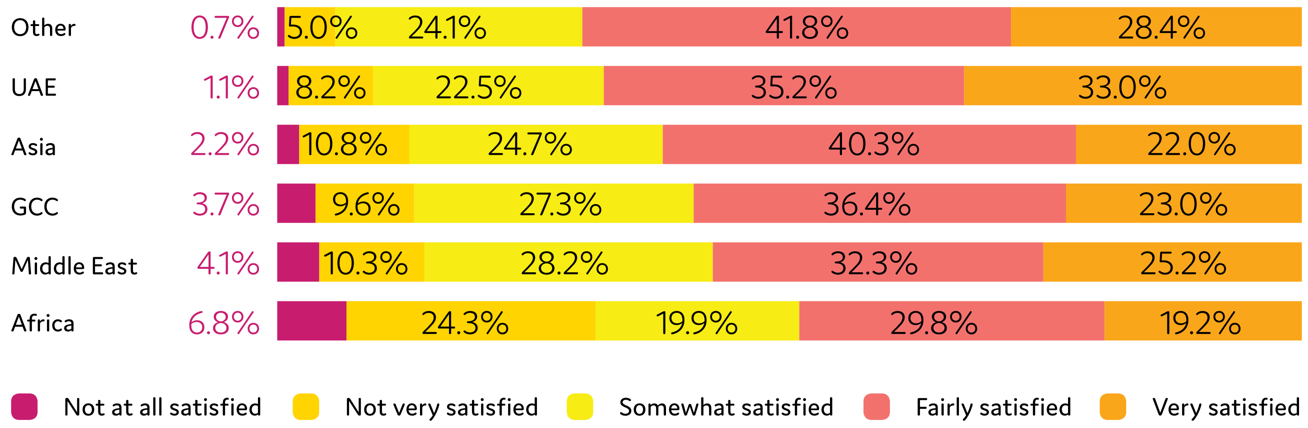
Respondents were asked to identify their levels of satisfaction with their current company performance. While 24.1% of respondents appeared to be very satisfied with their current company performance and 33.9% were very satisfied, 17.4% felt less than satisfied.

Satisfaction with current performance by nature of business



Overall, Contractors indicated that they were the most satisfied with current company performance (61.8%) and Sub-Contractors had the lowest levels of satisfaction (26.1% not very satisfied or not satisfied at all).

Satisfaction with current performance by region



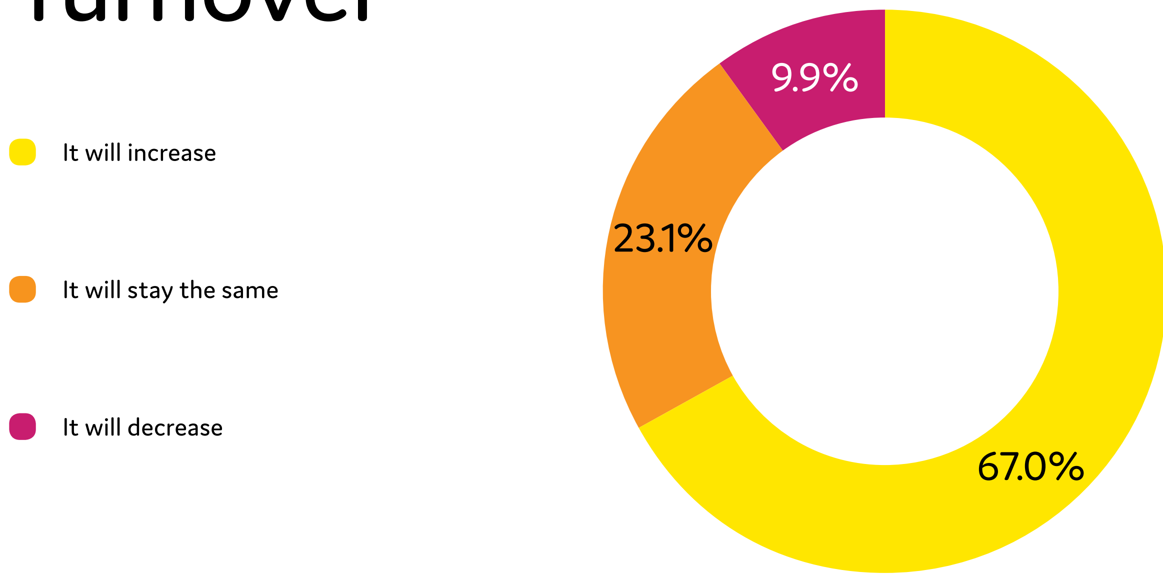
The survey also revealed that the regions with the highest satisfaction levels with current company performance are the UAE and Asia. The UAE came out on top with 68.2% of respondents indicating that they are very satisfied or fairly satisfied with the current performance of their company. Africa had the lowest level of satisfaction at 49%.

With regards to turnover and satisfaction with current company performance, those companies with a turnover of over US$ 500+ million were the most satisfied, with 71.6% of respondents feeling either very satisfied or fairly satisfied.

In terms of export vs. satisfaction with current company performance, the highest dissatisfaction levels came from respondents whose company revenues were generated all in one country (0% exports). The most satisfaction was shown by respondents whose company generated between 20-50% of their revenue from exports.

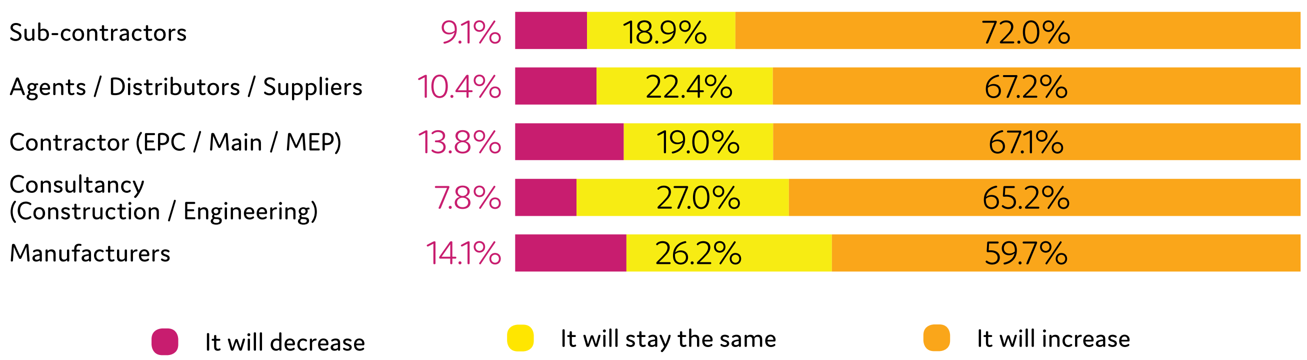
Depending on the respondent's position in the company, different levels of satisfaction with the current performance of the company was reported. Business owners reported highest levels of dissatisfaction with 5.8% not satisfied at all, and a further 21.1% not very satisfied. Meanwhile, senior management reported the highest levels of satisfaction with current company performance, with 24.1% very satisfied and 40.8% fairly satisfied. Middle management reported the second-highest levels of satisfaction at either very satisfied or fairly satisfied (57.2%) followed by C-level at (55%).

Turnover



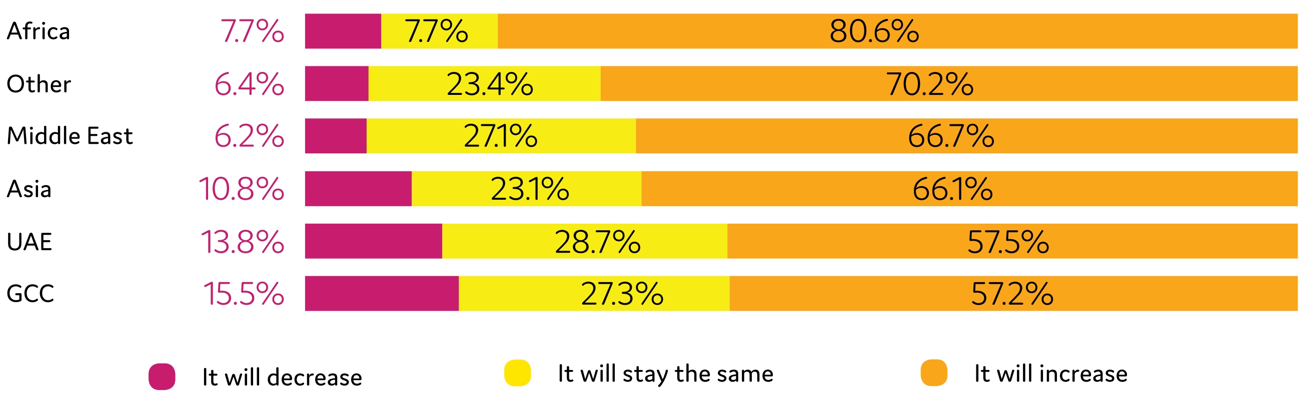
Respondents were asked whether they expected their company turnover to change in 2019 vs. 2018. An overwhelming 67% expected their company turnover to increase, while 23.1% believe it will stay the same, and 9.9% believe it will decrease.

Turnover expectations by nature of business



With regards to turnover vs. nature of business, 72% of the Sub-Contractor segment indicated that they believed that their turnover would increase in 2019 vs. 2018. Manufacturers were less optimistic with 14.1% believing that their turnover will decrease during this period.

Turnover expectations by region



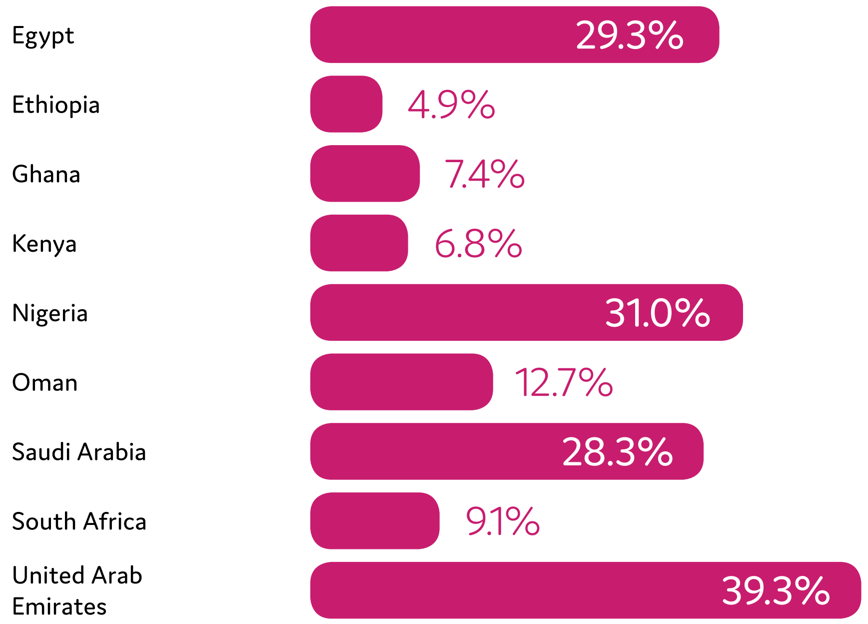
The survey also revealed that the top region with respondents that expected that their company turnover would increase in 2019 vs. 2018 was Africa. More than 85% of respondents with their company headquarters in Nigeria felt that the company turnover would increase in 2019.

The largest group of respondents, who indicated that they believe that the company turnover would increase in 2019 vs. 2018, came from those who worked in a company with a turnover of up to US$ 5 million with 72.5%. This was followed by those with a company turnover of between US$ 5-25 million (69.5%), between US$ 26-500 million (66.8%), and those with a turnover of US$ 500+ million (62.7%).

With regards to satisfaction with current performance vs. export, the respondents with exports of more than 75% outside of the company headquarters were simultaneously the group with the most significant proportion of those who believed that their company exports would decrease in 2019 vs. 2018 at 17.4%, as well as the largest percentage of those who believed their company export would increase in 2019 vs. 2018.

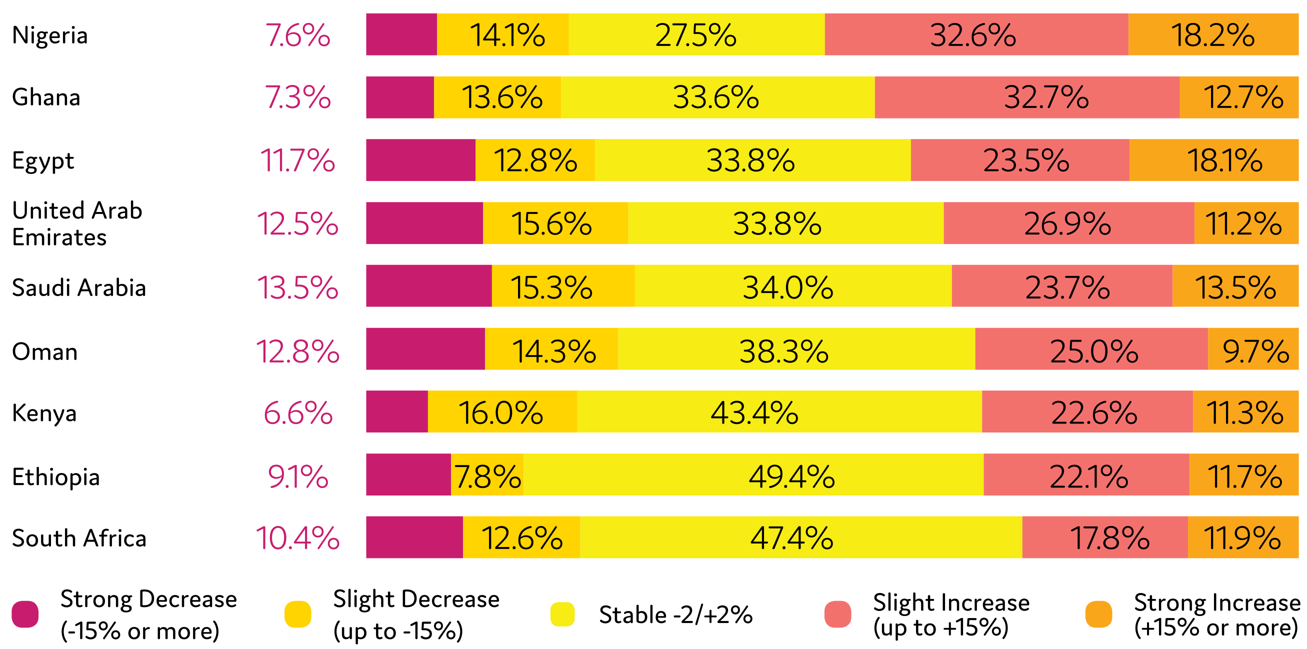
Business owners were the most likely to believe that the company turnover would increase in 2019 vs. 2018 at 72.7%, followed by C-level at 71.9%, senior management at 65.4%, and middle management (67.5%).

Markets



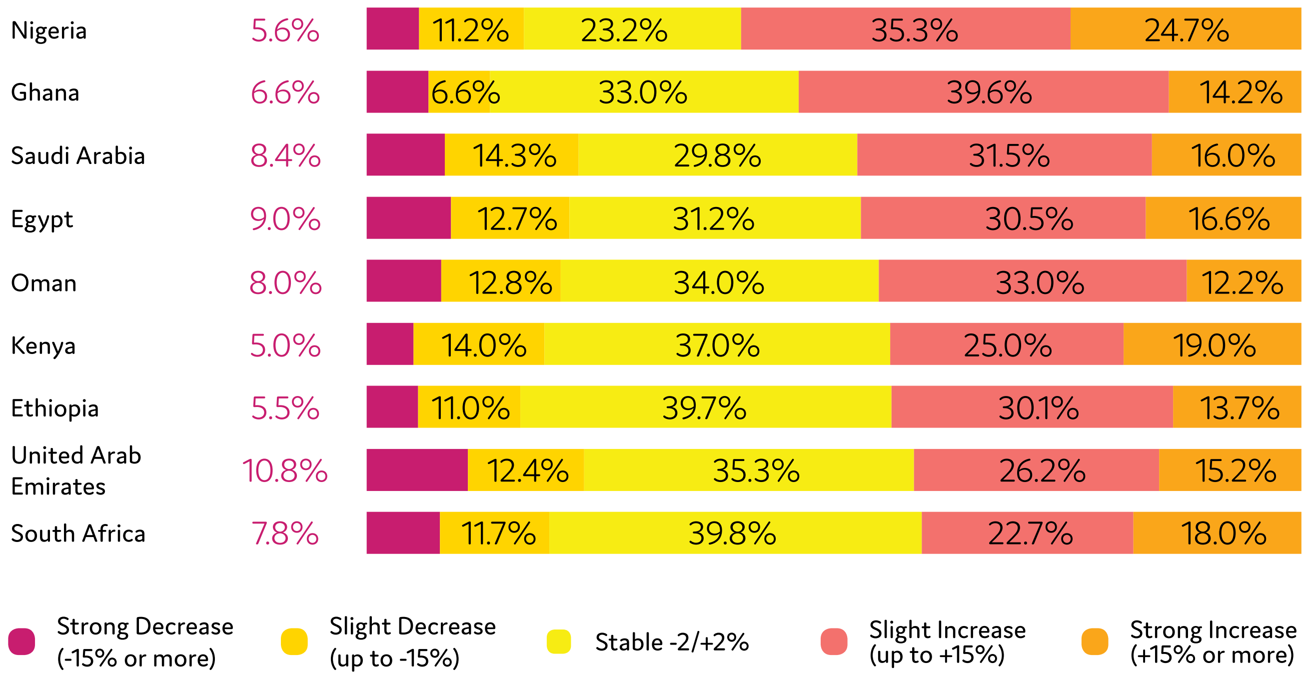
Respondents were asked to identify the markets that their company had been actively doing business in the last 24 months. The top market was the UAE, with 39% of respondents indicating they have been active in the market.

Companies' performance in each market (2018 vs 2017)



When asked to describe company performance in 2018 vs. 2017, the most significant increase was reported in Nigeria, where 50.8% of respondents described a slight or a strong increase. This was followed by Ghana (45.4%), Egypt (41.6%) and the UAE (38.1%).

Companies' performance expectations in each market for 2019 (vs 2018)



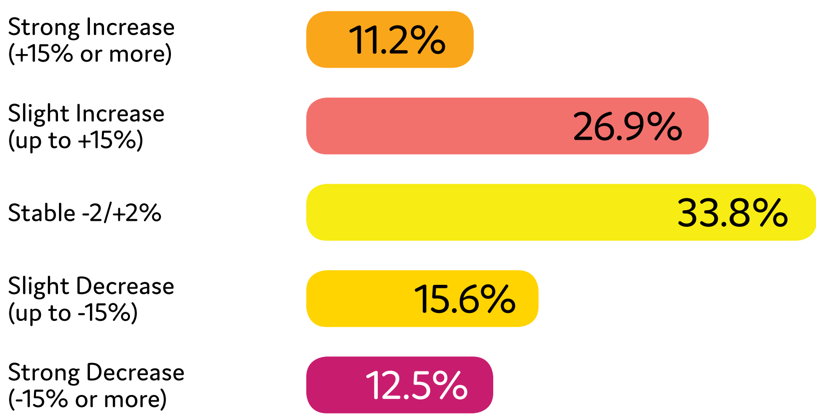
Expectations for company performance in 2019 vs. 2018 ranged from the highest expectations in Nigeria where 60% of the respondents expected a slight or a strong increase, to the lowest expectation for South Africa, where only 40.7% expected a slight or strong increase.

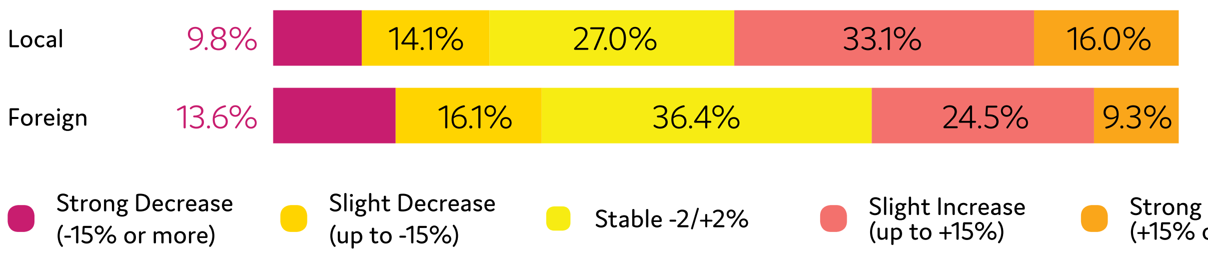
Respondents were also asked to describe the general performance of nine key markets in the MENA region. These include Ethiopia, Ghana, Egypt, Nigeria, Saudi Arabia, Kenya, South Africa, Oman and the UAE. The survey revealed that Ethiopia came out on top of the list with 47.3% describing the market as strong or very strong. Ghana ranked second with 44% describing the market as strong or very strong. Egypt, Nigeria and Saudi Arabia followed with 39.1%, 37.5% and 32.9% respectively. Oman and the UAE placed at the bottom of the nine key markets with 31.8% and 31.7% describing the market as strong or very strong in these countries.

Country Focus

UAE

Performance 2018 vs. 2017



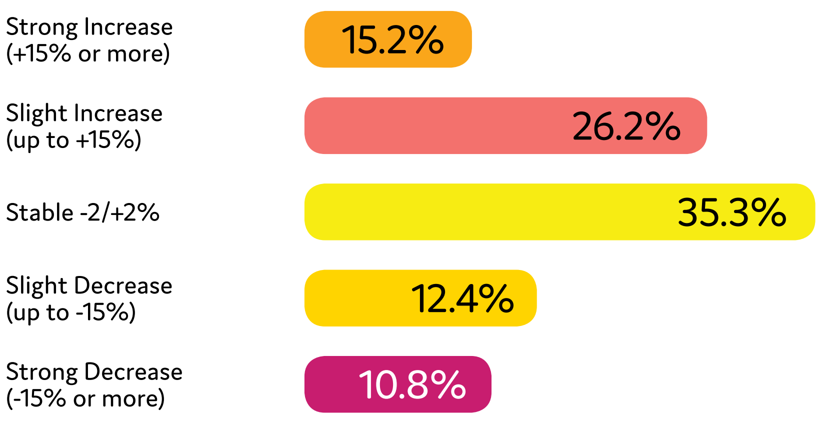


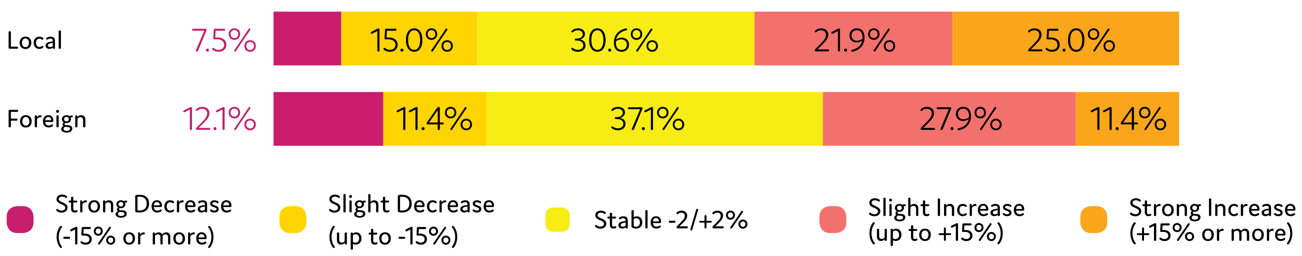
When asked to describe the performance of their company in the UAE in 2018 vs. 2017, the key trend was that the performance of the company had remained stable. This was the same across Agents/Distributors/Suppliers, Consultants, Manufacturers, and Contractors and Sub-Contractors segments of the business. While 18.9% of Agents/Distributors/Suppliers described their company performance in 2018 vs. 2017 as experiencing a strong decrease, in contrast, only 2.6% of Sub-Contractors described the company performance during last year as experiencing a strong decrease.

When it comes to respondent's position in the company, 22.4% of business owners described their company performance in 2018 vs. 2017 as experiencing a strong decrease followed by C-level at 15.8%, senior management at 10.8%, and middle management at 6%.

The largest group of respondents who described their company performance in 2018 vs. 2017 as experiencing a strong decrease came from those who worked in a company with a turnover of up to US$ 5 million. This stood at 72.5%. This was followed by those with a company turnover of between US$ 5-25 million (13%), between US$ 26-500 million (12.4%), and those with a turnover of US$ 500+ million (5.4%).

Performance 2019 vs. 2018



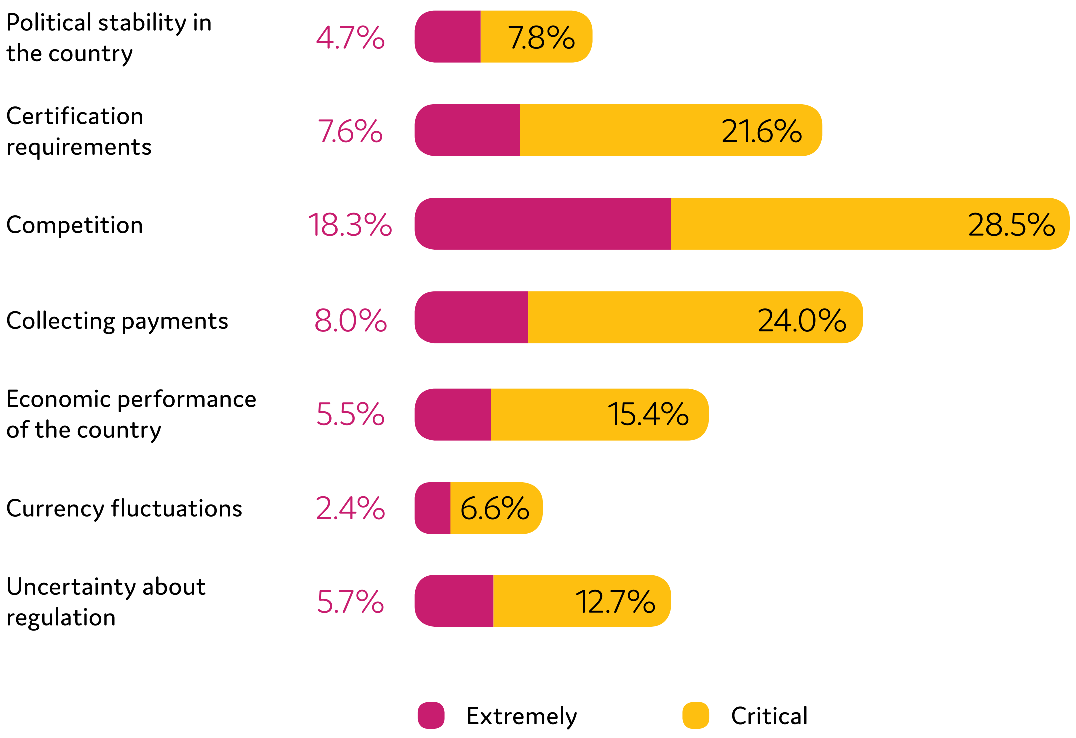


The respondents were asked about their expectations for the performance of their company in the UAE in 2019 vs. 2018. With regards to nature of business (Agents/Distributors/Suppliers, Consultants, Manufacturers, and Contractors and Sub-Contractors), between 35% and 50% of the respondents indicated that they had strong expectations for a strong or slight increase in company performance in the UAE. However, within this group, 13.9% of Consultants indicated that they expect a strong decrease in company performance in 2019 vs. 2018 – the highest percentage of respondents expecting a decrease in growth.

With regards to job position, 14.9% of business owners indicated that they have expectations for a slight or strong decrease, as well as the lowest expectations for growth with only 36.9% expecting performance to slightly or strongly increase.

Companies with a turnover of US$ 500+ million were the most likely to expect company performance to slightly or strongly increase (48.6%), and the least likely to expect it to slightly or strongly decrease (17.6%).

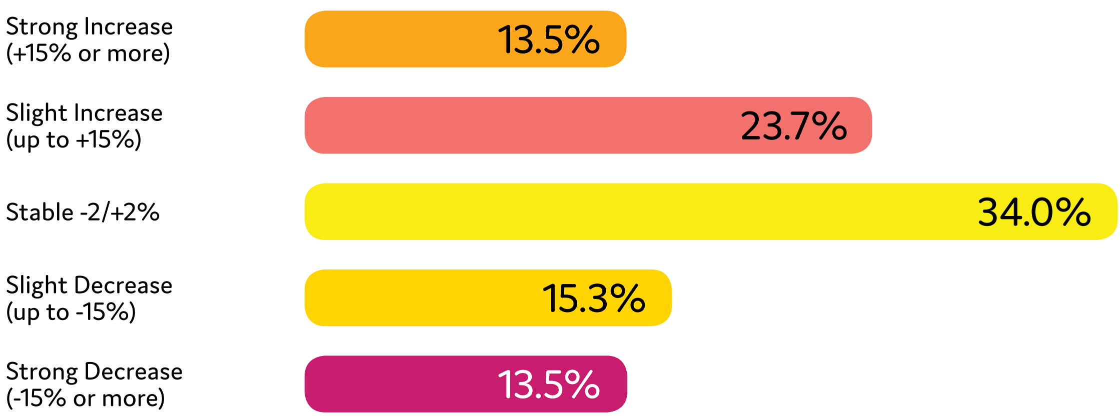
Challenges

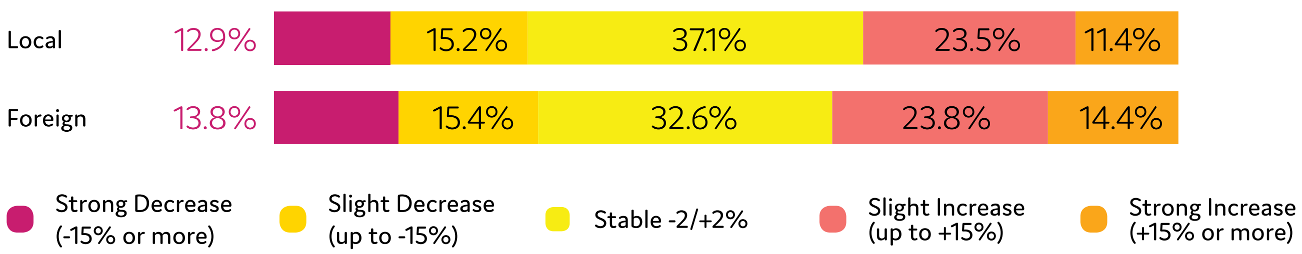


When it comes to the perceived challenges for companies operating in the UAE's energy and utilities market, competition was revealed to be the main concern with 28.5% of respondents believing it was a critical challenge and 18.3% believe it was extremely challenging. This was followed by collection of payments, with 24% believing it was a critical challenge and 8% believe it was extremely challenging. Political stability in the country and currency fluctuations was seen to be the lowest challenges to doing business in the UAE.

Saudi Arabia

Performance 2018 vs. 2017



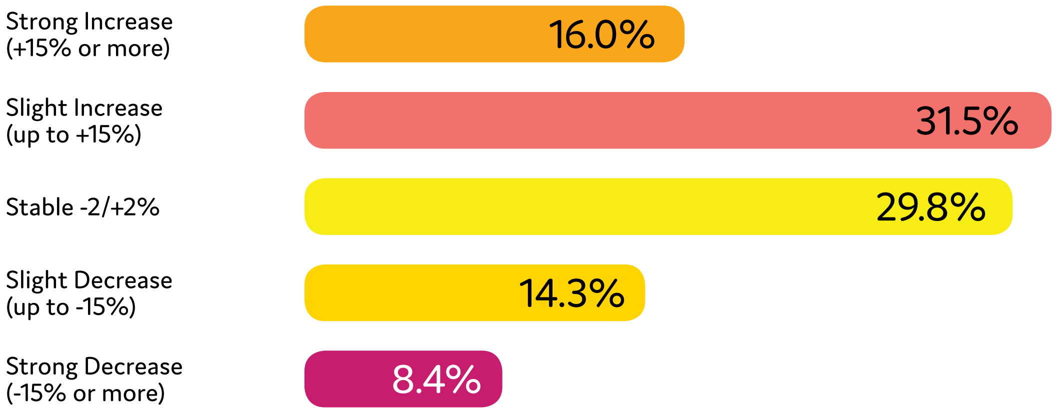


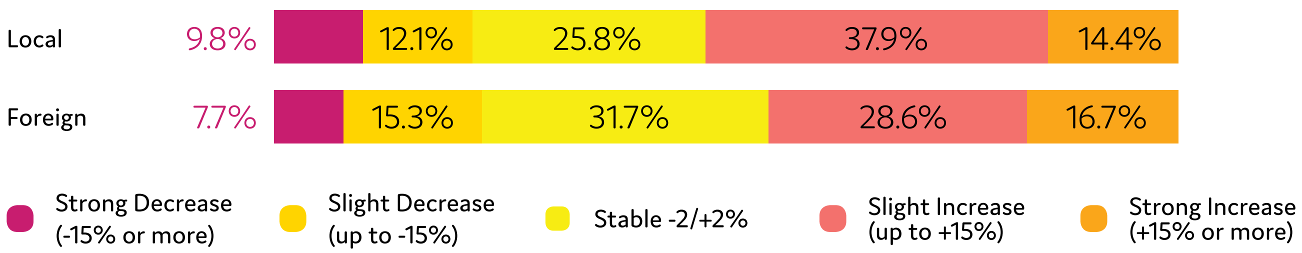
While the majority of respondents across all business segments described the performance of their company in Saudi Arabia in 2018 vs. 2017 as stable, Sub-Contractors reported the highest decreases in performance (20.6%) during this period.

Business owners were the most likely to describe their company performance in 2018 vs. 2017 as experiencing a strong decrease (28.8%), followed by C-level at 13.3%, senior management at 13.3%, and middle management at 7.5%.

42.5% of companies with a turnover of US$ 500+ million reported slight or strong increases in company performance in 2018 vs. 2017, with only 6.8% reporting slight or strong decreases. In contrast, those with a company turnover of up to US$ 5 million reported only a 21.3% increase and a 19.7% decrease in this period.

Performance 2019 vs. 2018





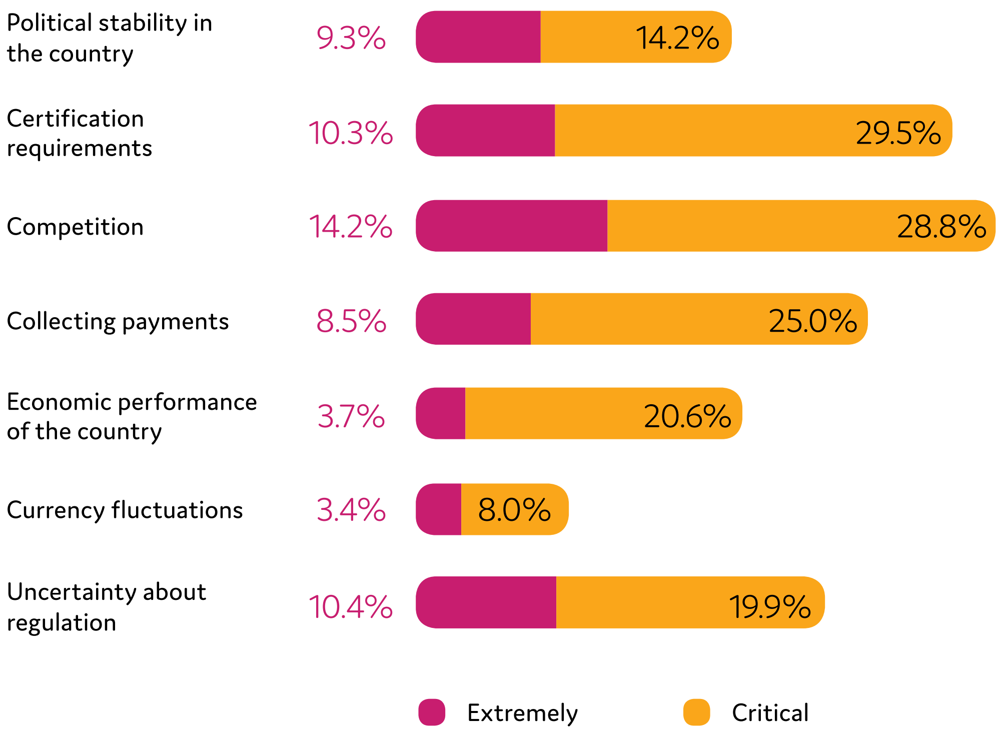
When describing their expectations for the performance of their company in Saudi Arabia in 2019 vs. 2018, Consultants and Contractors reported the highest expected increases in performance with 51.4% and 49.3% respectively. Meanwhile, 18.8% of Sub-Contractors reported that they expect a strong decrease in company performance in 2019 vs. 2018.

Middle management came out on top in their expectations for a slight or strong increase for growth with 58.2%. At the other end of the spectrum, 13.5% of business owners indicated that they have expectations for a slight or strong decrease during this time period.

With regards to company turnover, the fluctuations were marginal when it came to expectations for the performance of their company in Saudi Arabia in 2019 vs. 2018. However, companies with a turnover of up to US$ 5 million were the most likely to expect company performance to slightly or strongly decrease (12.1%) and the least likely to expect it to slightly or strongly increase (37.9%).

41.2% of companies with their headquarters in Africa were the most likely to expect company performance to slightly or strongly decrease in Saudi Arabia in 2019.

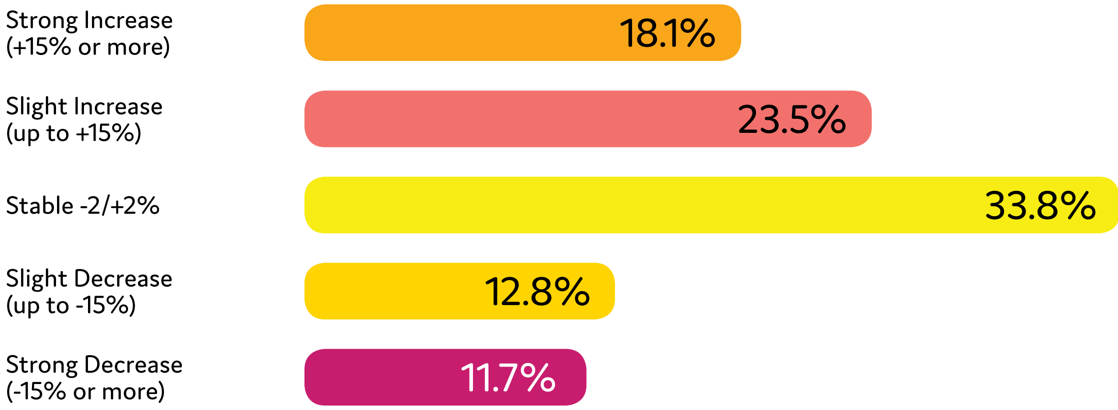
Challenges

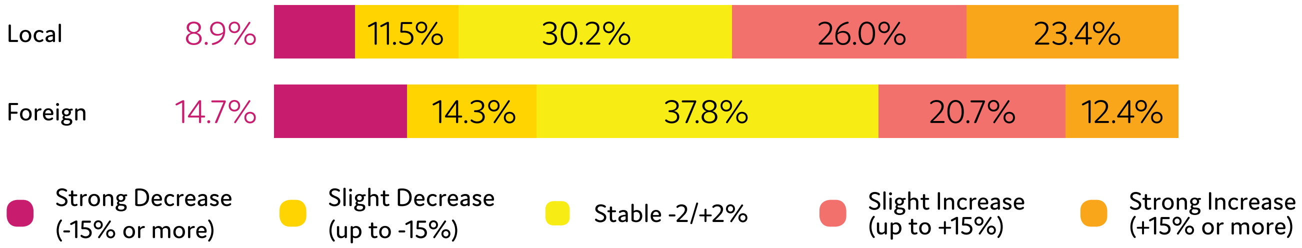


Similar to the challenges that companies reported facing when doing business in the UAE, respondents also indicated that their main challenge in Saudi Arabia's energy and utilities market was competition, with 28.8% believing it was a critical challenge and 14.2% believe it was extremely challenging. However, unlike the UAE, this was followed by certification requirements with 29.5% believing it was a critical challenge, and 10.3% believe it was extremely challenging. This was then closely followed by the collection of payments and uncertainty about regulation.

Egypt

Performance 2018 vs. 2017



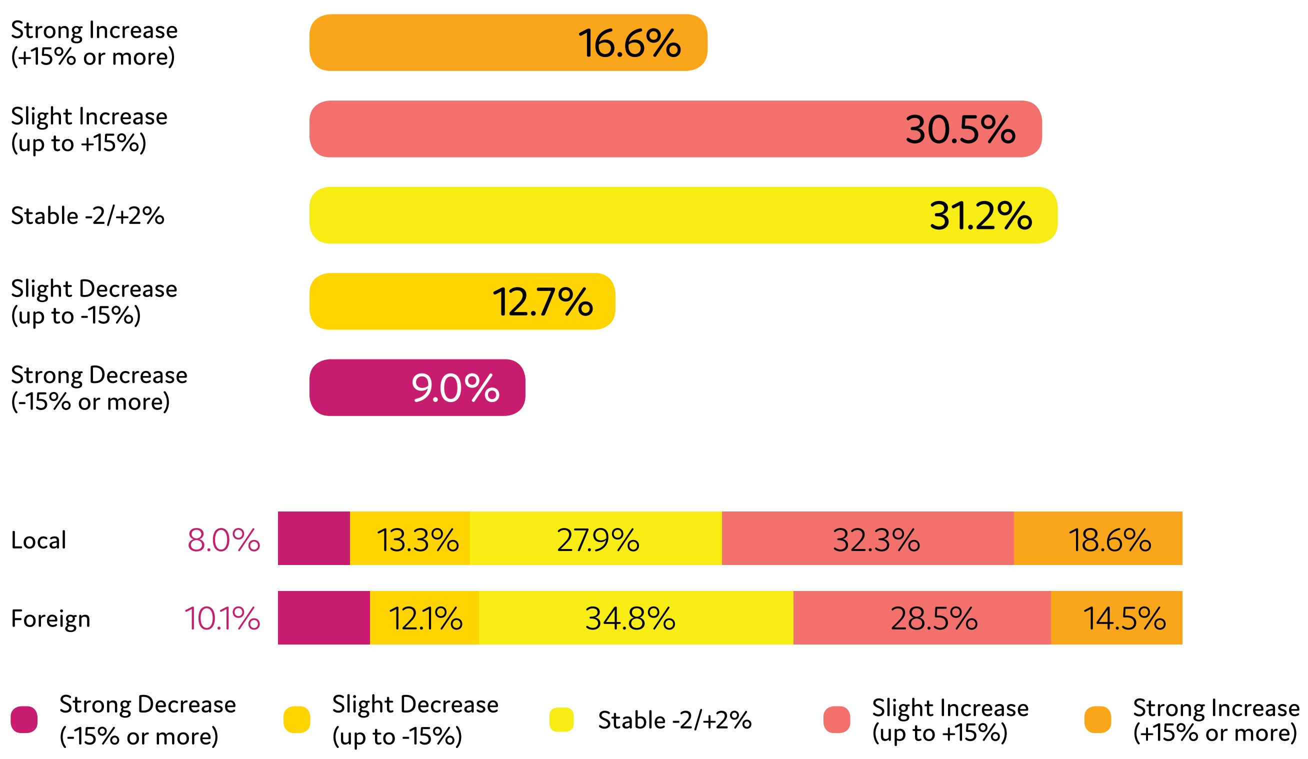


With regards to the nature of business vs. company performance in Egypt in 2018 vs. 2017, both Consultants and Manufacturers described the highest percentages of growth at 46.6% and 46.3% respectively. Meanwhile, 17.1% of Contractors indicated a strong decrease and 9.8% a slight decrease in this period.

20% of business owners described their company performance in Egypt in 2018 vs. 2017 as experiencing a strong decrease, followed by middle management at 12%, C-level at 10.3% and senior management at 7%.

With regards to turnover, zero percent of companies with a turnover of US$ 500+ million reported any decrease in company performance in 2018 vs. 2017. This is in contrast to the 17.4% of companies with a turnover of between up to US$ 5 million and 16.4% of those with a turnover of between US$ 5-25 million who reported a strong decrease in company performance in this period.

Performance 2019 vs. 2018

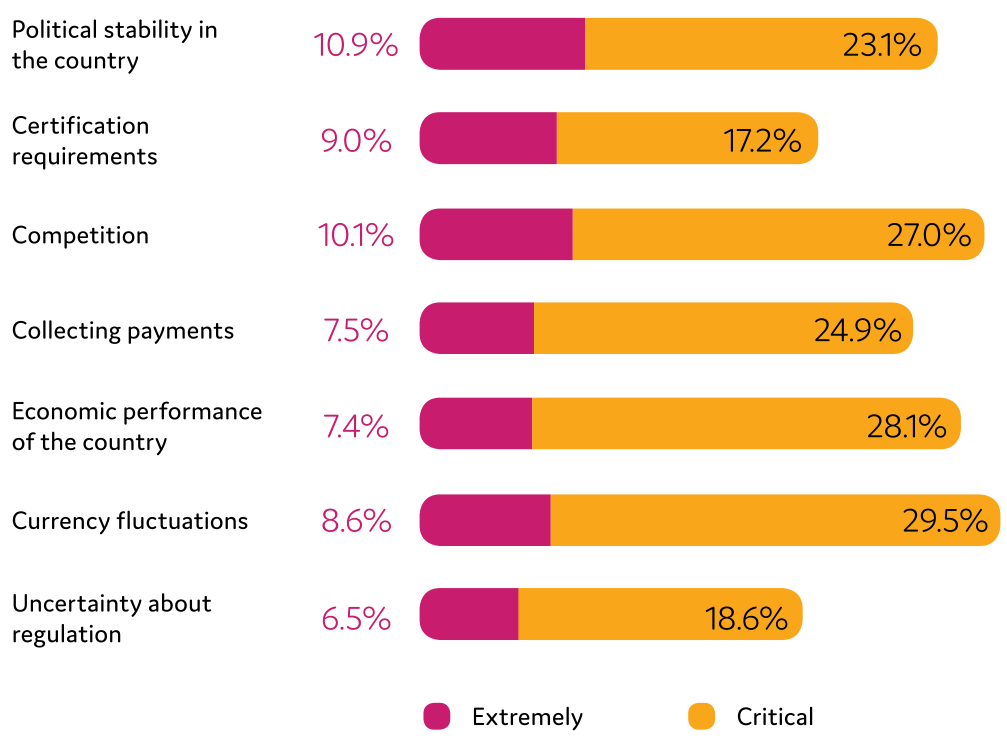


While the majority of business segments reported that their expectations for the performance of their company in Egypt in 2019 would exceed that of 2018, 30.3% of Contractors reported that they expect a strong decrease in company performance in 2019 vs. 2018. This was the highest reported decrease in comparison to other business segments.

While C-level, senior management and middle management generally displayed positive expectations for company performance in 2019 (with percentages ranging between 47% and 53% among these positions within the company), 16.5% of business owners indicated that they have expectations for a slight decrease and 14.4% a strong decrease in company performance, while 41% expected a slight or strong increase in performance.

With regards to geographic variants, 33.3% of companies with their headquarters in Asia indicated that they expect their company performance to slightly or strongly decrease in Egypt. Concurrently, 29.6% reported that they expect it to slightly or strongly increase in 2019.

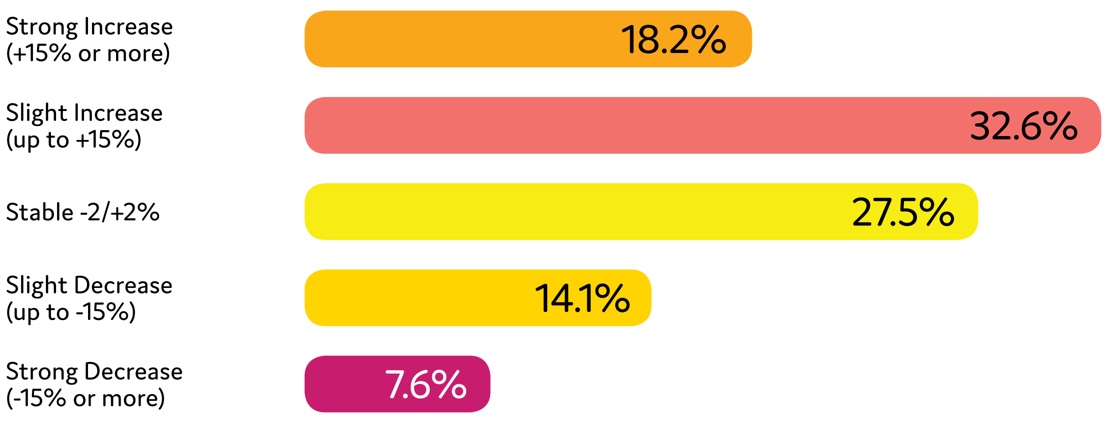
Challenges

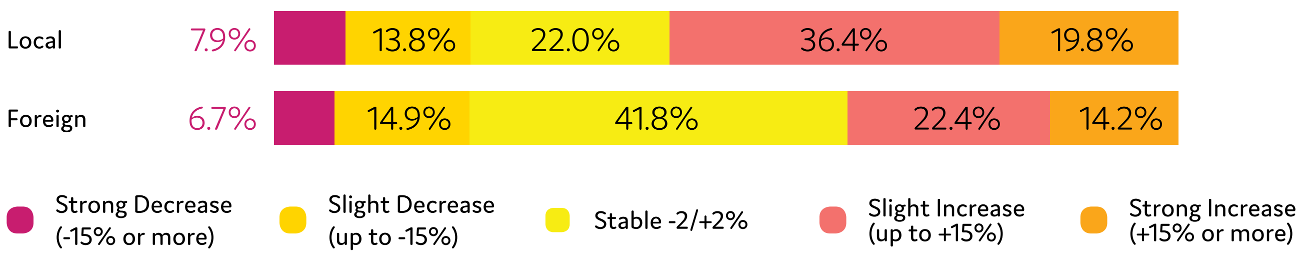


When asked to the rate challenges that companies face when doing business in Egypt's energy and utilities market, currency fluctuations, competition and the economic performance of the country were flagged as the top three concerns. 29.5% of respondents believed that currency fluctuations posed a critical challenge with a further 8.6% believing this was an extreme challenge to doing business in this market.

Nigeria

Performance 2018 vs. 2017



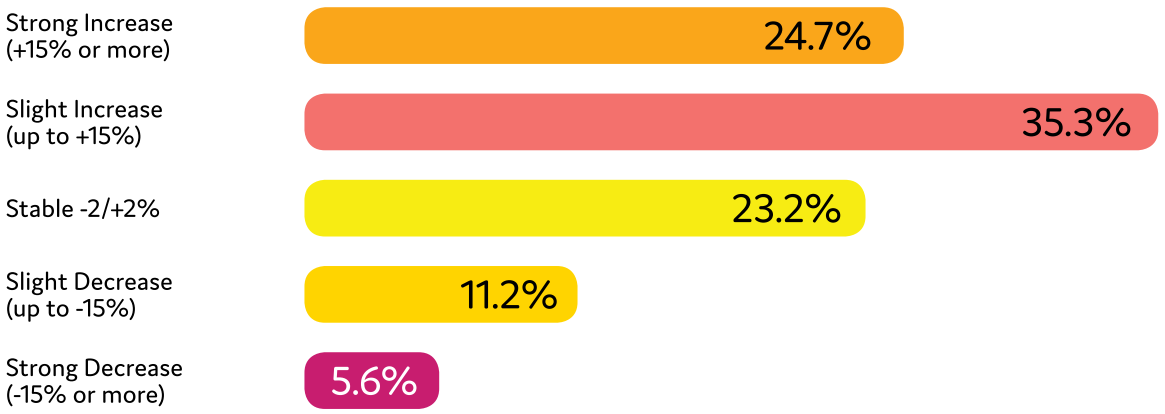


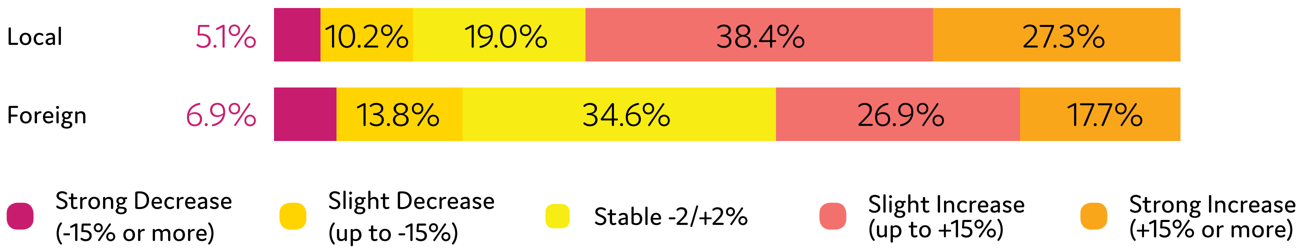
When asked to describe company performance in Nigeria's energies and utilities market in 2018 vs. 2017, 47.7% of Manufacturers reported a stable performance - the largest percentage among the business sectors. While both growth and decline was reported across all business segments, Contractors reported the lowest percentages of decrease in growth, with 11.6% describing a slight decrease and 4.7% strong decrease.

Meanwhile, 34.6% of business owners described their company performance in 2018 vs. 2017 as experiencing a slight or strong decrease, while middle management were more likely to hold a positive view of company performance with 59.7% describing a slight or strong increase in the same period.

Companies with a turnover of US$ 500+ million reported the highest percentages of stability in company performance during this period (47.5%), as well as the lowest percentages of decrease in company performance (12.5%).

Performance 2019 vs. 2018



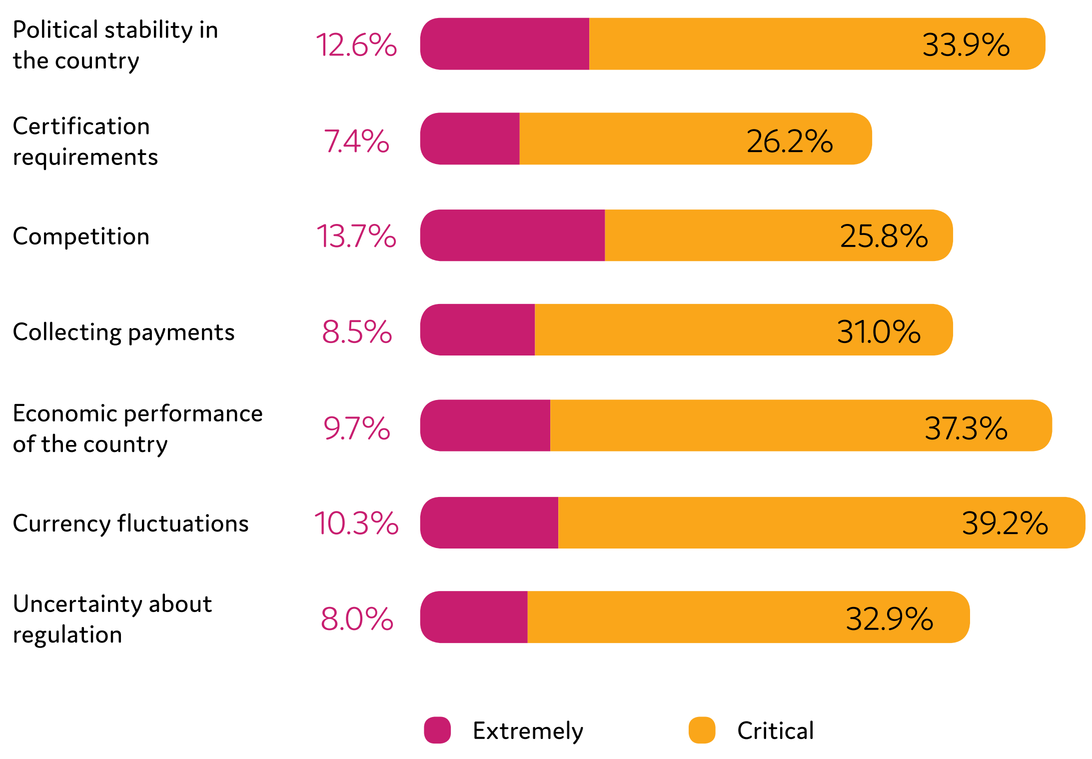


When asked to describe their expectation for company performance in Nigeria in 2019 vs. 2018, Sub-Contractors reported the highest expected figures for growth with 69.2% anticipating a slight or strong increase. Similarly, Sub-Contractors were least likely to describe an expectation for decreased growth in company performance in 2019.

As we have seen in other markets, business owners were most likely to forecast a downturn in business growth in Nigeria's energy and utilities market in 2019, with 23% expecting a slight or strong decline in growth.

With regards to turnover, companies across all segments (from up to US$5 million to US$500+ million) described an expectation for growth in company performance in 2019 vs. 2018. However, 20.7% of companies with a turnover of up to US$ 5 million expected company performance to decrease in the forecasted period.

Challenges



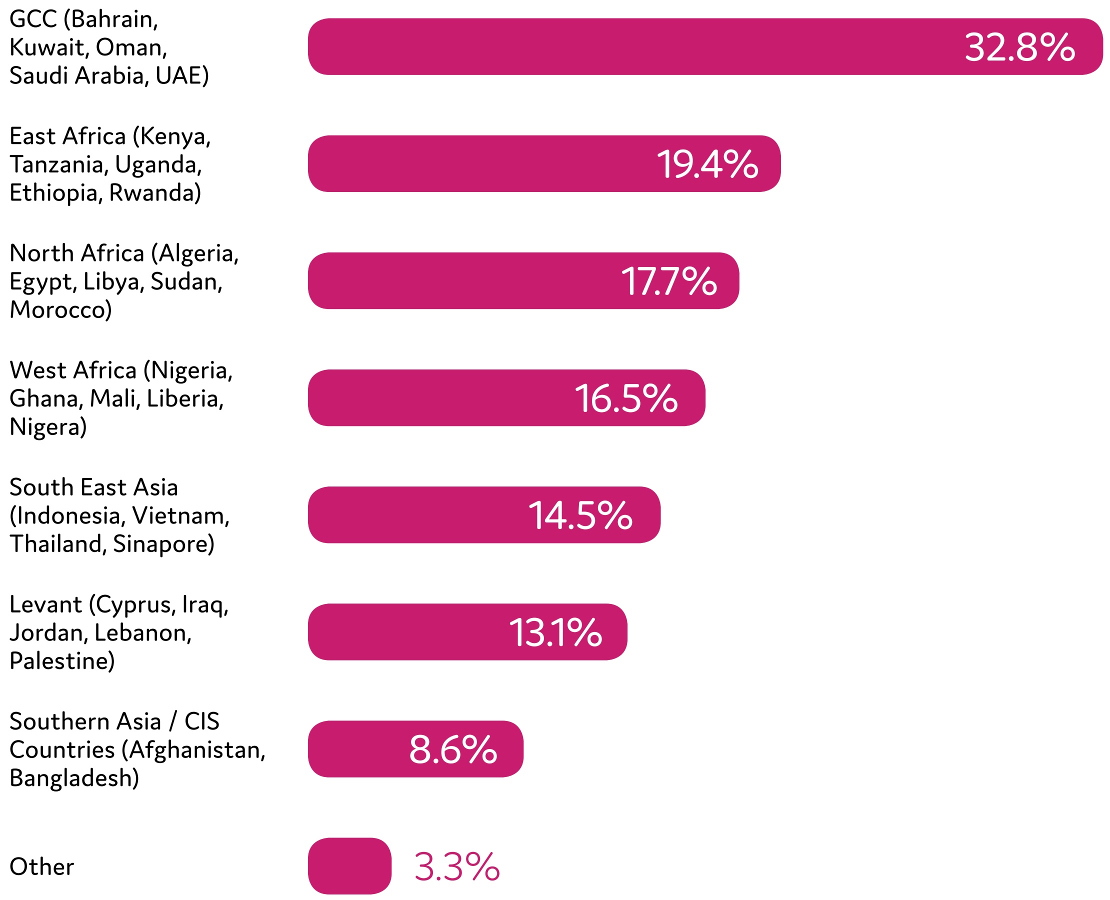
Currency fluctuations and political stability were reported as the main challenges in Nigeria's energy and utilities market. The economic performance of the country was also highlighted as a key challenge with 37.3% identifying this challenge as critical, and 9.7% as extremely challenging.

> "If solar panels can be competitive cost-wise then it can make a great impact in Nigeria where power is a major challenge."

Markets for the Future

Respondents were asked to identify the markets that they are not currently doing business in, but where they feel that there are potential opportunities for business in the future. 32.8% of respondents identified the GCC countries, including Bahrain, Kuwait, Oman, Saudi Arabia and the UAE, as the top market for business opportunities. East Africa, North Africa, West Africa, South East Asia, Levant and Southern Asia/CIS countries followed in this order.

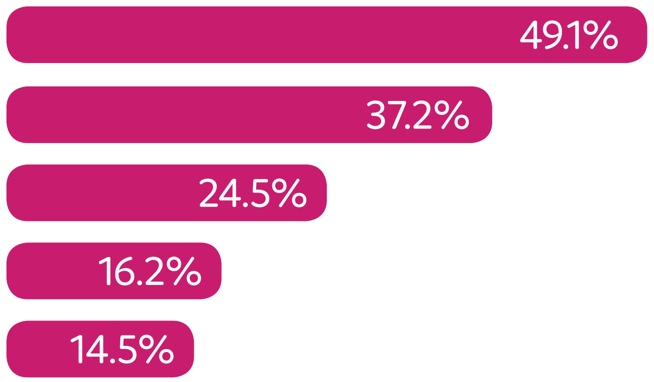
Markets with Business Opportunities



Regional Focus

GCC

Opportunities



49.1% of respondents felt that the UAE has the most market opportunities from the GCC countries. This was followed by Saudi Arabia (37.2%), Kuwait (24.5%), Oman (16.2%) and Bahrain (14.5%).

Contributing Factors

Factors for business	United Arab Emirates	Saudi Arabia	Kuwait	Oman	Bahrain
Access to financing	12.5%	13.3%	16.3%	12.1%	14.5%
Economic growth	38.3%	41.1%	41.1%	47.3%	40.6%
Growing population	6.4%	14.5%	9.3%	9.9%	5.8%
Increase in tourism	23.0%	7.1%	6.2%	2.2%	11.6%
Rebuilding	9.6%	16.2%	10.1%	14.3%	15.9%
Rising incomes	10.2%	7.9%	17.1%	14.3%	11.6%

Within the GCC, economic growth was identified as the number one factor that generates business opportunities in the energy and utilities market. This was followed by access to financing and rebuilding. In Saudi Arabia, a growing population was also identified as an essential driver in the market. Meanwhile, an increase in tourism was identified as a significant driver for business opportunities in the UAE.

When respondents were asked which countries they were planning to enter within the next 12 months, Saudi Arabia and Bahrain were the top contenders, each with 41.2%. The pipeline for entering Kuwait, however, was significantly slower with 39.8% indicating that they will not enter the market within three years.

The majority of respondents planned to enter the GCC market by employing direct access (establishment of a company or a local branch). Other popular means of entering the market include joint venture or through distributors, particularly in the UAE and Saudi Arabia.

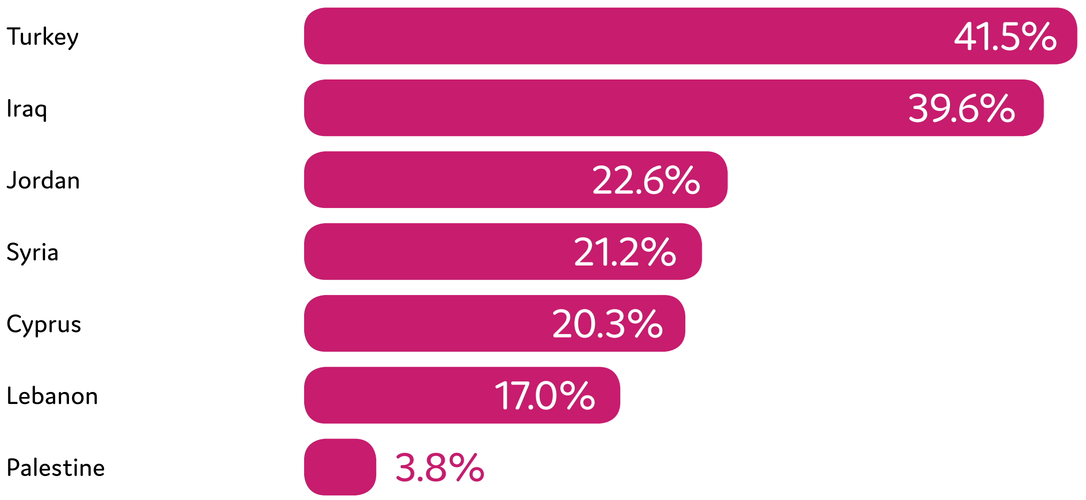
Barriers

Biggest obstacle	United Arab Emirates	Saudi Arabia	Kuwait	Oman	Bahrain
Lack of financial resources	37.7%	30.9%	29.2%	31.4%	40.5%
Lack of skilled manpower	9.1%	8.2%	15.4%	17.6%	24.3%
Market doesn't seem to be stable	3.2%	11.8%	4.6%	3.9%	0.0%
Need to focus on our current markets	29.2%	28.2%	29.2%	27.5%	5.4%
We don't have the right product / service / certification for this market	20.8%	20.9%	21.5%	19.6%	29.7%

Respondents indicated that the biggest obstacles to entering the GCC energy and utilities market within the next three years vary from country to country. However, a common theme with all respondents and in all countries was the lack of financial resources and a need to focus on current markets. Bahrain scored the highest percentage (40.5%) when it came to the respondents feeling that they had a lack of financial resources. Bahrain also scored highly for respondents not feeling that they have the right product/service/certification for this market (29.7%).

Levant

Opportunities



41.5% of respondents felt that Turkey has the most market opportunities within the Levant. This was followed by Iraq (39.6%), Jordan (22.6%), Syria (21.2%), Cyprus (20.3%), Lebanon (17%), and Palestine (3.8%).

Contributing Factors

Factors for business	Turkey	Iraq	Jordan	Syria	Cyprus
Access to financing	10.8%	2.5%	10.6%	4.5%	12.8%
Economic growth	38.6%	15.0%	36.2%	6.8%	30.8%
Growing population	6.0%	1.3%	17.0%	0.0%	7.7%
Increase in tourism	20.5%	1.3%	8.5%	0.0%	25.6%
Rebuilding	14.5%	76.3%	14.9%	88.6%	12.8%
Rising incomes	9.6%	3.8%	12.8%	0.0%	10.3%

When asked about the key factors that generate business opportunities in the Levant market, the responses varied considerably from country to country. While rebuilding was identified as the key factor in Iraq and Syria, meanwhile, in Turkey, Jordan and Cyprus, the respondents felt that economic growth was the key opportunity to generate new business in the energy and utilities market.

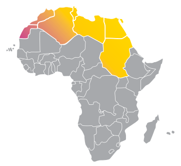
In terms of a timeline for market entry, Turkey and Iraq were the most popular with 44.3% and 45.6% of respondents respectively indicating they plan to enter the market within 12 months.

Across the entire Levant, mergers & acquisitions was the least popular means to entering the market, while joint ventures, distributor partnerships and the direct establishment of an office or branch were all strong contenders.

Barriers

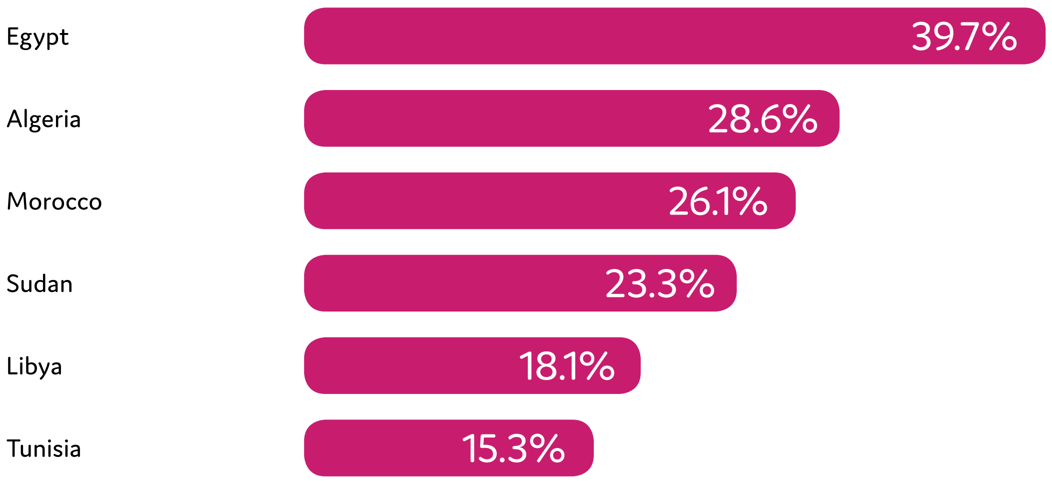
Biggest obstacle	Turkey	Iraq	Jordan	Syria	Cyprus
Lack of financial resources	51.1%	25.5%	35.0%	15.4%	31.8%
Lack of skilled manpower	13.3%	8.5%	5.0%	11.5%	18.2%
Market doesn't seem to be stable	2.2%	36.2%	5.0%	46.2%	4.5%
Need to focus on our current markets	20.0%	21.3%	25.0%	23.1%	27.3%
We don't have the right product / service / certification for this market	13.3%	8.5%	30.0%	3.8%	18.2%

When it comes to market barriers or obstacles to enter the Levant within the next three years, respondents identified different market barriers for each country within the Levant. For Turkey, Jordan and Cyprus, a lack of financial resources was identified as the main barrier for the energy and utilities market. Meanwhile, in Iraq and Syria, the stability of the market was a main concern.



North Africa

Opportunities



30.7% of respondents felt that Egypt has the most market opportunities within North Africa. This was followed by Algeria (28.6%), Morocco (26.1%), Sudan (23.3%), Libya (18.1%), and Tunisia (15.3%).

Contributing Factors

Factors for business	Egypt	Algeria	Morocco	Sudan	Libya
Access to financing	9.0%	11.4%	13.9%	4.3%	1.9%
Economic growth	34.8%	30.4%	33.3%	24.3%	11.5%
Growing population	18.7%	26.6%	16.7%	12.9%	1.9%
Increase in tourism	7.1%	2.5%	23.6%	1.4%	0.0%
Rebuilding	20.6%	19.0%	4.2%	52.9%	76.9%
Rising incomes	9.7%	10.1%	8.3%	4.3%	7.7%

Within North Africa, the key factor that will generate business opportunities in Sudan and Libya was identified as rebuilding. Meanwhile, for Egypt, Algeria and Morocco, economic growth and a growing population were all key considerations for spurring on business opportunities in these countries.

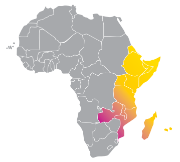
For market entry, the majority of respondents indicated that they are taking a more conservative approach to their plans to enter the North African energy and utilities market. The majority planned to enter either within three years or more, but not within 12 months.

For Algeria, Morocco, Sudan and Libya, the majority of respondents plan to enter the market directly by the establishment of an office or local branch of the company. However, in Egypt, the more popular choices for market access included joint ventures or distributor partnerships.

Barriers

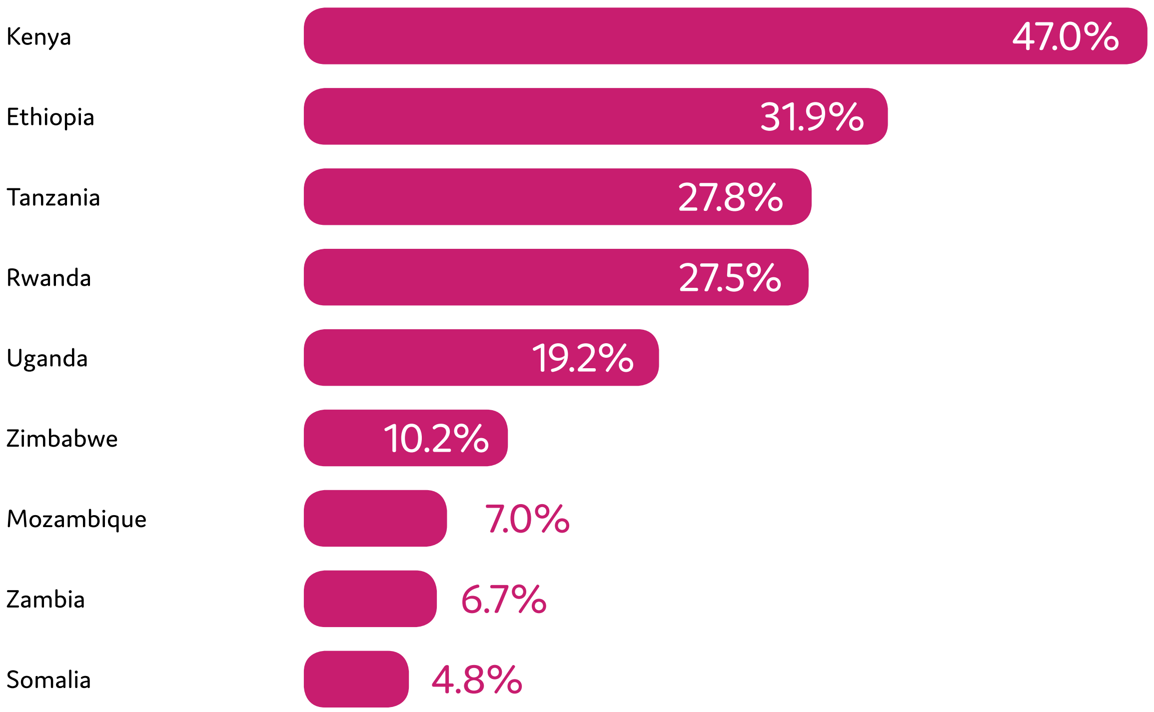
Biggest obstacle	Egypt	Algeria	Morocco	Sudan	Libya
Lack of financial resources	39.3%	42.1%	39.5%	29.4%	22.7%
Lack of skilled manpower	10.7%	15.8%	13.2%	11.8%	18.2%
Market doesn't seem to be stable	8.9%	13.2%	0.0%	26.5%	27.3%
Need to focus on our current markets	33.9%	15.8%	28.9%	17.6%	27.3%
We don't have the right product / service / certification for this market	7.1%	13.2%	18.4%	14.7%	4.5%

The lack of financial resources was identified as the biggest barrier to entry into most countries within North Africa with the exception of Libya, where respondents felt that the instability of the country and the need to focus on current markets were the main barriers to entry.



East Africa

Opportunities



47% of respondents felt that Kenya has the most market opportunities within East Africa. This was followed by Ethiopia (31.9%), Tanzania (27.8%), Rwanda (27.5%), Uganda (19.2%), Zimbabwe (10.2%), Mozambique (7%), Zambia (6.7%), and Somalia (4.8%).

Contributing Factors

Factors for business	Kenya	Ethiopia	Tanzania	Rwanda	Uganda
Access to financing	11.2%	10.4%	10.8%	3.5%	10.7%
Economic growth	41.3%	52.1%	38.6%	52.3%	44.6%
Growing population	11.2%	13.5%	10.8%	1.2%	10.7%
Increase in tourism	11.2%	2.1%	4.8%	8.1%	3.6%
Rebuilding	14.0%	15.6%	25.3%	29.1%	19.6%
Rising incomes	11.2%	6.3%	9.6%	5.8%	10.7%

Across all countries in East Africa, economic growth was identified as the key factor that generates business opportunities within the energy and utilities sector in these countries. Within Tanzania and Rwanda, rebuilding was identified as the second most important contributing factor to generating business.

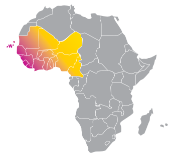
Respondents indicated that out of all of the East African countries, they were most likely to enter Uganda within the next 12 months (42.9%). Interestingly, the majority of respondents (40.3%) indicated that they would not be entering the Kenyan market within the next three years.

Both joint ventures and distributor partnerships were identified as the most likely plan of market entry into East Africa. Very few respondents felt that merger & acquisition was an appropriate way to enter the market.

Barriers

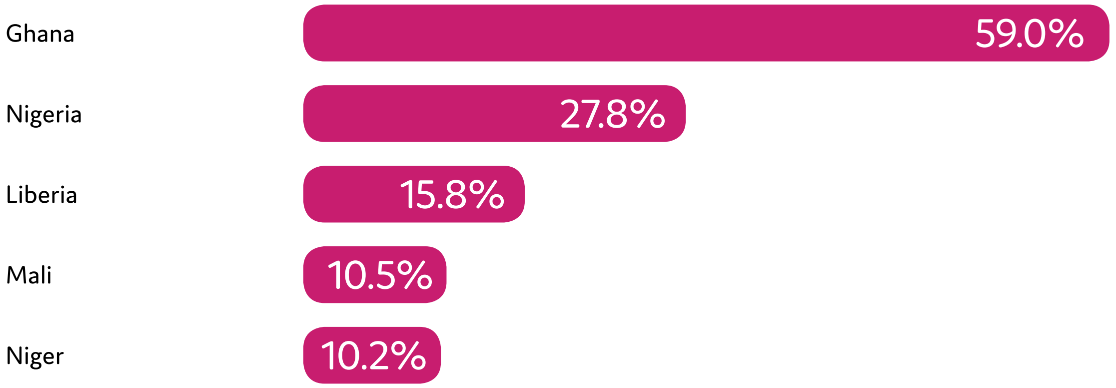
Biggest obstacle	Kenya	Ethiopia	Tanzania	Rwanda	Uganda
Lack of financial resources	47.9%	35.8%	40.0%	45.7%	25.0%
Lack of skilled manpower	14.1%	15.1%	15.6%	8.7%	19.4%
Market doesn't seem to be stable	5.6%	9.4%	4.4%	6.5%	5.6%
Need to focus on our current markets	19.7%	26.4%	26.7%	17.6%	30.6%
We don't have the right product / service / certification for this market	12.7%	13.2%	13.3%	14.7%	4.5%

Overall, within East Africa, the respondents identified the lack of financial resources as the biggest obstacle or barrier to entry into this market within the next three years. However, in Uganda, the need to focus on current markets was identified as the key market barrier to entry. Respondents did not feel that the stability of the countries in the region was a major concern.



West Africa

Opportunities



59% of respondents felt that Ghana has the most market opportunities within West Africa. This was followed by Nigeria (27.8%), Liberia (15.8%), Mali (10.5%), and Niger (10.2%).

Contributing Factors

Factors for business	Ghana	Nigeria	Liberia	Mali	Niger
Access to financing	10.4%	7.5%	16.7%	11.1%	7.4%
Economic growth	50.6%	26.3%	19.0%	22.2%	29.6%
Growing population	10.4%	48.4%	9.5%	18.5%	14.8%
Increase in tourism	3.2%	2.2%	4.8%	0.0%	0.0%
Rebuilding	14.9%	8.6%	47.6%	40.7%	40.7%
Rising incomes	10.4%	7.0%	2.4%	7.4%	7.4%

Respondents felt that business opportunities were generated through a number of channels. For Ghana, 50.6% of respondents identified economic growth as the key factor that generates business opportunities. In Nigeria, 48.8% of respondents felt that the key factor was the growing population in the country. Meanwhile, rebuilding was identified as a key factor in Liberia, Mali and Niger.

With the exception of Liberia, where 38.1% of respondents indicated that they would not enter the market within three years, and in Nigeria, where the majority of respondents indicated that they planned to enter the market within 12 months, the most common answer for market entry in the other West African countries was 'within three years'.

Direct access through the establishment of a local office or branch was the most common plan for market entry across all countries. However, within Ghana and Nigeria, joint ventures and distributor partnerships also scored highly among respondents plans for entering the West African energy and utilities market.

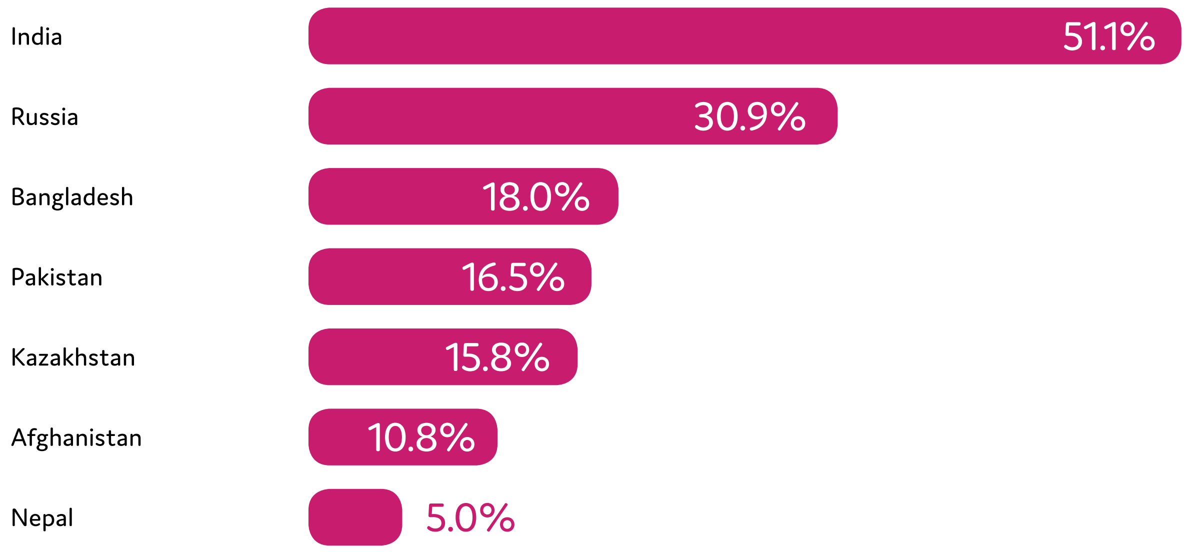
Barriers

Biggest obstacle	Ghana	Nigeria	Liberia	Mali	Niger
Lack of financial resources	50.5%	37.8%	34.8%	29.4%	58.8%
Lack of skilled manpower	7.4%	15.6%	8.7%	35.3%	11.8%
Market doesn't seem to be stable	6.3%	22.2%	13.0%	23.5%	5.9%
Need to focus on our current markets	21.1%	20.0%	21.7%	11.8%	17.6%
We don't have the right product / service / certification for this market	14.7%	4.4%	21.7%	0.0%	5.9%

Much like we have seen in North, and East Africa, the lack of financial resources was identified as the biggest obstacles and barriers to enter the West African market within the next three years. In Mali, in particular, the lack of skilled manpower was cited as a top reason for lack of entry into the market. The stability of the market was also a serious concern in both Nigeria and Mali.

Southern Asia / CIS

Opportunities



51.1% of respondents felt that India has the most market opportunities within Southern Asia/CIS countries. This was followed by Russia (30.9%), Bangladesh (18%), Pakistan (16.5%), Kazakhstan (15.8%), Afghanistan (10.8%), and Nepal (5%).

Contributing Factors

Factors for business	India	Russia	Bangladesh	Pakistan	Kazakhstan
Access to financing	5.2%	9.3%	12.0%	6.5%	9.5%
Economic growth	49.4%	51.2%	36.0%	19.4%	47.6%
Growing population	27.3%	2.3%	24.0%	25.8%	9.5%
Increase in tourism	1.3%	7.0%	0.0%	3.2%	9.5%
Rebuilding	9.1%	11.6%	20.0%	35.5%	19.0%
Rising incomes	7.8%	18.6%	8.0%	9.7%	4.8%

Economic growth was cited as the key factor that generates business opportunities in Southern Asia/CIS countries, with the exception of Pakistan where the respondents felt that the growing population and the rebuilding of the country presented the most significant opportunity for business.

Respondents indicated that they planned to enter Russia, Bangladesh and Pakistan within the next 12 months. With regards to Kazakhstan, 50% of respondents had plans to enter within three years, while the majority of respondents did not have plans to enter the Indian market within the next three years.

The direct establishment of an office or a local branch was highlighted as the most popular form of market entry in India, Russia, Pakistan and Kazakhstan. In Bangladesh, joint ventures were identified as a likely option for market entry while direct access, distributor partnerships and mergers & acquisitions also scored highly in the country.

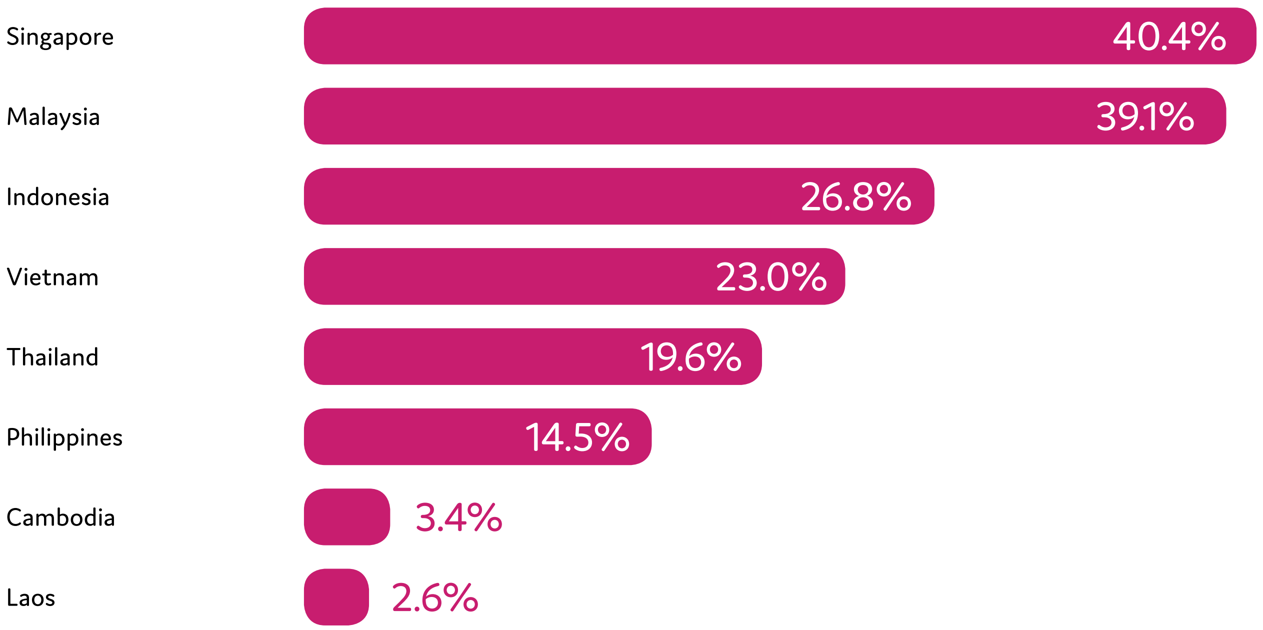
Barriers

Biggest obstacle	India	Russia	Bangladesh	Pakistan	Kazakhstan
Lack of financial resources	30.3%	47.8%	38.5%	45.5%	46.7%
Lack of skilled manpower	6.1%	0.0%	0.0%	0.0%	13.3%
Market doesn't seem to be stable	12.1%	21.7%	7.7%	18.2%	6.7%
Need to focus on our current markets	36.4%	13.0%	38.5%	27.3%	33.3%
We don't have the right product / service / certification for this market	15.2%	17.4%	15.4%	9.1%	0.0%

Except India, where respondents highlighted the need to focus on current markets as the biggest obstacle or barrier to market entry within the next three years, the lack of financial resources was identified as the key barrier to entry in other Southern Asia/CIS countries. Skilled manpower scored highly within the region, with the majority of respondents identifying it as the least likely barrier to market access.

Southeast Asia

Opportunities



40.4% of respondents felt that Singapore has the most market opportunities within Southeast Asia. This was followed by Malaysia (39.1%), Indonesia (26.8%), Vietnam (23%), Thailand (19.6%), Philippines (14.5%), Cambodia (3.4%), and Laos (2.6%).

Contributing Factors

Factors for business	Singapore	Malaysia	Indonesia	Vietnam	Thailand
Access to financing	14.1%	10.3%	13.3%	11.8%	8.9%
Economic growth	53.3%	40.2%	28.3%	49.0%	46.7%
Growing population	7.6%	8.0%	21.7%	3.9%	8.9%
Increase in tourism	7.6%	14.9%	1.7%	5.9%	11.1%
Rebuilding	6.5%	12.6%	21.7%	17.6%	2.2%
Rising incomes	10.9%	13.8%	13.3%	11.8%	22.2%

Respondents cited the favourable economic conditions and economic growth as being the key factors that generate business opportunities in the energy and utilities market in Southeast Asia. In Indonesia, a growing population and the rebuilding of the infrastructure and economy were also identified as key factors driving opportunities in the country.

When asked about the timeline for entry into the Southeast Asian market, the answers were split relatively evenly between 12 months to over three years. This was with the exception of Indonesia, where 42.4% of respondents indicated that they plan to enter the market within 12 months.

Very few respondents indicated that they would consider merger & acquisition as a way to enter the market. For most countries, the majority preferred to opt for direct establishment of an office or a local branch. In Vietnam and Thailand, distributor partnerships also scored highly as an entry option for respondents.

Barriers

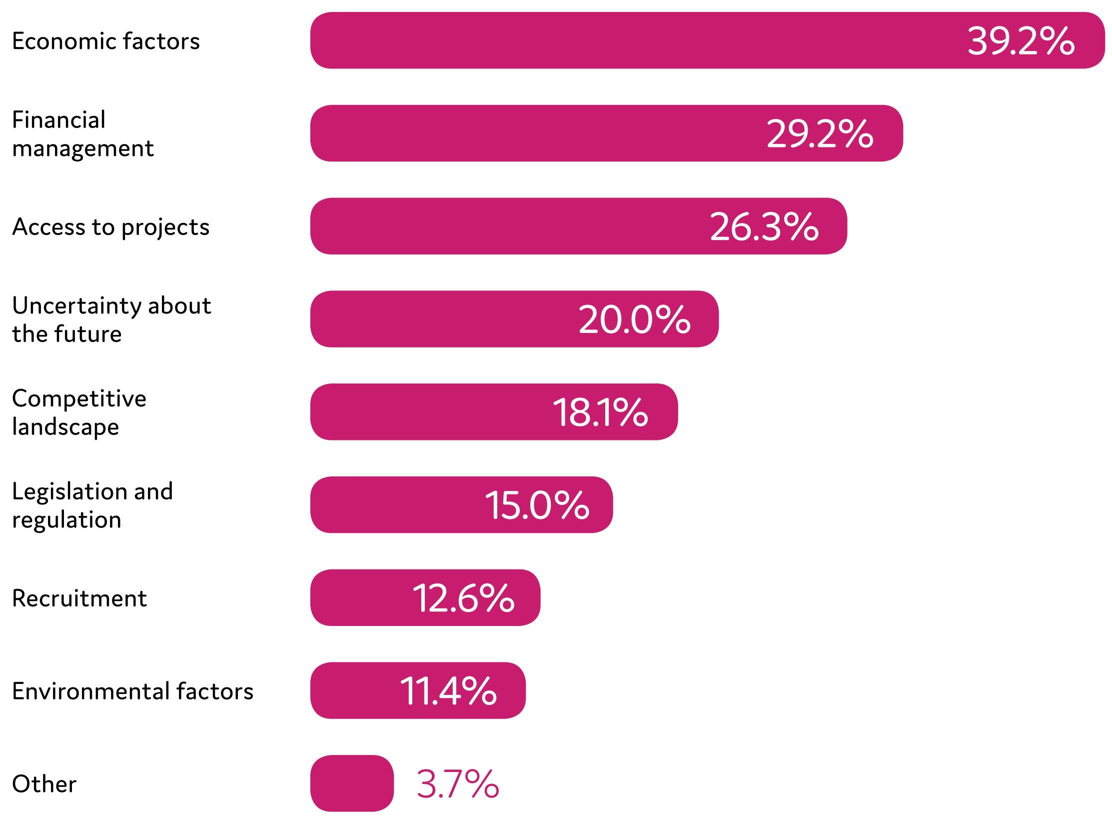
Biggest obstacle	Singapore	Malaysia	Indonesia	Vietnam	Thailand
Lack of financial resources	42.9%	59.6%	44.4%	35.7%	26.1%
Lack of skilled manpower	7.1%	8.5%	2.8%	10.7%	17.4%
Market doesn't seem to be stable	1.8%	0.0%	5.6%	0.0%	0.0%
Need to focus on our current markets	26.8%	17.0%	25.0%	39.3%	30.4%
We don't have the right product / service / certification for this market	21.4%	14.9%	22.2%	14.3%	26.1%

In Singapore, Malaysia and Indonesia, the lack of financial resources was cited as the biggest obstacle or barrier to entry into the energy and utilities market of these countries within the next three years. While the lack of financial resources also scored highly as a barrier to entry for Vietnam and Thailand, the need to focus on their currents markets also featured as a key barrier to entry for respondents.

Trends, Technologies, Opportunities

Respondents were asked to identify the current challenges that their businesses are facing in the energy and utilities market in the MENA region. While 39.2% of respondents identified economic factors as the top challenge for companies, financial management, access to projects and uncertainty about the future, all featured highly on the list of current challenges.

Challenges



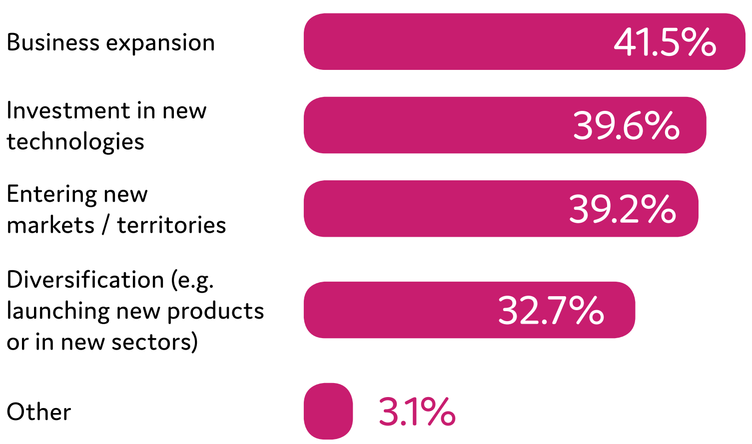
Current challenges

Current Challenges	Manufacturers	Agents / Distributors / Suppliers	Consultancy	Contractors	Sub-contractors	Utilities
Economic factors	39%	39%	33%	36%	42%	39%
Financial management	27%	35%	32%	29%	33%	22%
Access to projects	21%	22%	33%	36%	31%	24%
Uncertainty about the future	22%	16%	16%	21%	13%	22%
Competitive landscape	35%	21%	18%	15%	18%	15%
Legislation and regulation	14%	10%	14%	9%	11%	30%
Recruitment	18%	16%	6%	11%	10%	9%
Environmental factors	12%	7%	6%	9%	8%	20%
Other	1%	3%	4%	2%	6%	6%

The survey looked at current business challenges in terms of the nature of business vs. the challenges that the individual business segments are facing. While economic factors and financial management were identified as the top challenges across the full spread of business segments, Manufacturers were the only business segment to also identify the competitiveness of the energy and utilities landscape as a primary concern. Similarly, the respondents in the Utilities segment gave legislation and regulation a high score as a key challenge in the market.

From a regional perspective, economic factors and financial management were given the highest scores when it comes to challenges faced by businesses in Egypt. In Nigeria, along with economic challenges, respondents also sited access to projects as a significant challenge. Uncertainty about the future and the competitive landscape were also indicated to be current challenges facing businesses in the UAE and Saudi Arabia.

Opportunities



Respondents were asked to identify and highlight what they believed were the best opportunities for their business in the MENA energy and utilities market over the next 12 months. Although the top three answers were given relatively equal weight in terms of their potential as a business opportunity, business expansion came out as the top opportunity, with 41.5% of the score. This was followed by investment in new technologies (39.6%), entering new markets and territories (39.2%), and diversification (32.7%).

Best opportunities

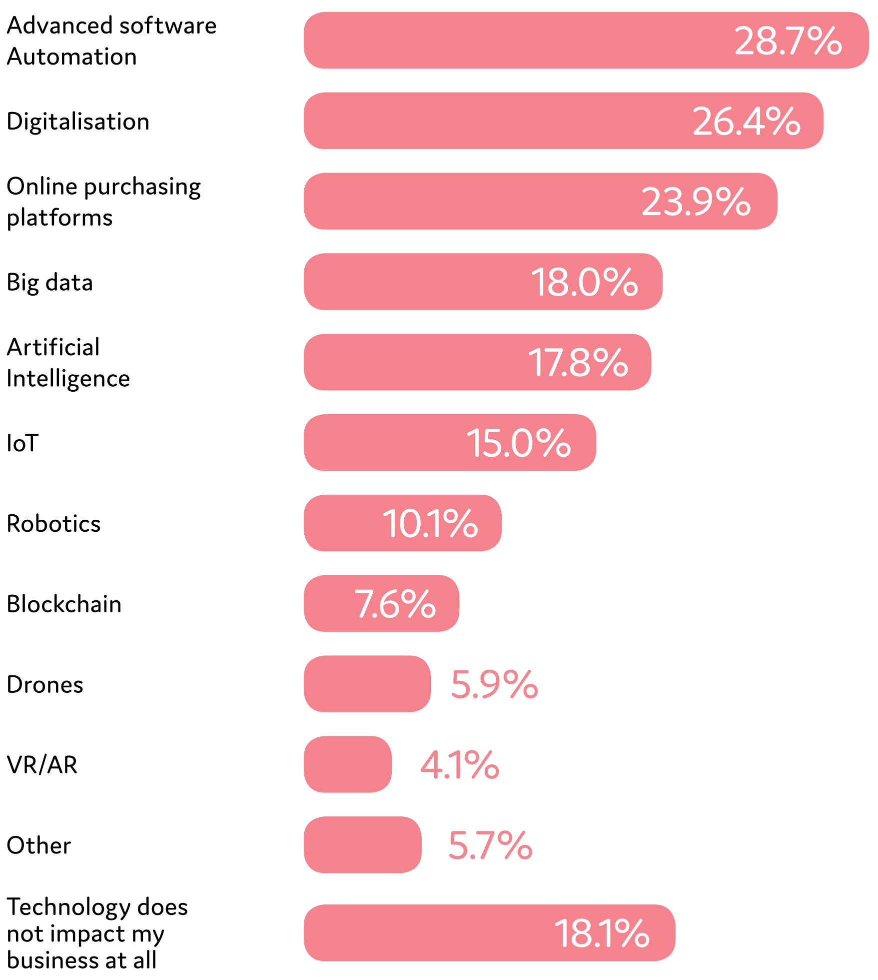
Best opportunities	Manufacturers	Agents / Distributors / Suppliers	Consultancy	Contractors	Sub-contractors	Utilities
Business expansion	49%	45%	38%	45%	40%	41%
Investment in new technologies	39%	30%	38%	25%	44%	52%
Entering new markets / territories	62%	43%	38%	47%	37%	27%
Diversification	40%	36%	25%	29%	35%	32%
Other	0%	2%	4%	2%	4%	2%

When it comes to the nature of business vs. best opportunities for business over the next 12 months, entering new markets and territories as well as business expansion scored highly with all respondents. The survey revealed that particularly the Utilities segment identified investment in new technologies as a potential game-changer for their business in the near future.

From a regional perspective, the UAE, Saudi Arabia and Nigeria were rated highly for the opportunities they offer in business expansion. Meanwhile, respondents identified entering new markets and territories as the best opportunity for their business over the next 12 months.

Respondents were asked to share their opinion on the technologies that have the biggest impact on their business. The top three technology trends were advanced software automation, digitalisation and online purchasing platforms, with each gaining 28.7%, 26.4% and 23.9% of the scores respectively. Interestingly, 18.1% of respondents revealed that technology does not impact their businesses at all.

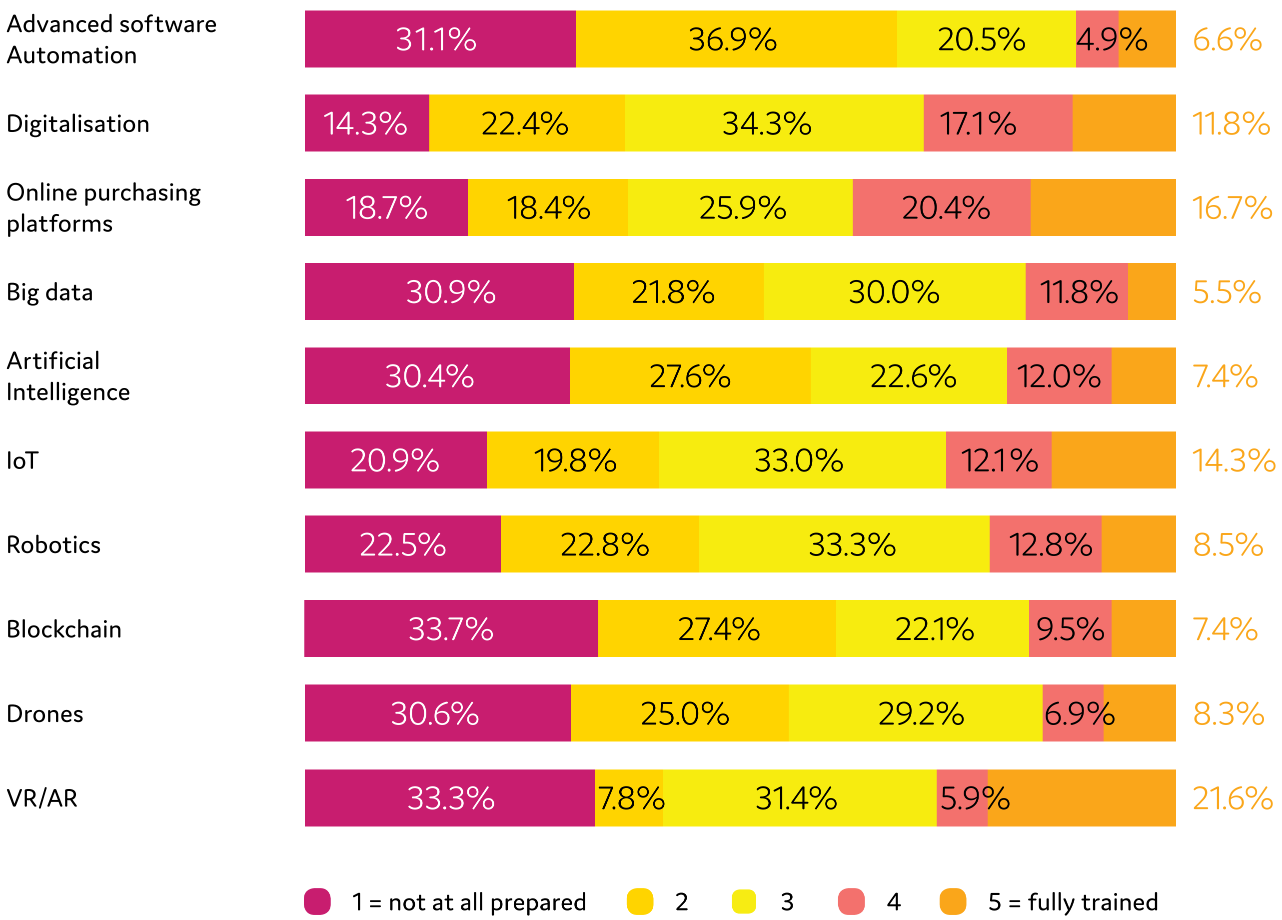
Technology Impact



Technology Impact	Manufacturers	Agents / Distributors / Suppliers	Consultancy	Contractors	Sub-contractors	Utilities
Advanced software Automation	25%	19%	33%	24%	33%	43%
Digitalisation	25%	28%	21%	23%	27%	32%
Online purchasing platforms	17%	32%	20%	24%	25%	18%
Big data	15%	16%	15%	11%	8%	27%
Artificial Intelligence	14%	15%	13%	12%	15%	18%
IoT	19%	10%	13%	11%	13%	20%
Robotics	12%	9%	8%	8%	6%	5%
Blockchain	3%	6%	8%	4%	7%	11%
Drones	1%	4%	8%	8%	4%	5%
VR/AR	1%	3%	5%	2%	5%	5%
Other	12%	4%	8%	5%	4%	7%
Technology does not impact my business at all	24%	22%	18%	30%	19%	13%

While Consultants, Sub-contractor and Utilities segments identified advance software automation as having the biggest impact on their business, Agents/Distributors/Suppliers highlighted that online purchasing platforms were a key technology trend for their business. Meanwhile, 30% of Contractors revealed that technology did not impact their business at all. Similarly, 24% of Manufacturers, 22% of Agents/Distributors/Suppliers and 19% of Sub-Contractors also felt that technology had no impact on their business

Preparation of employees for new technologies



Adopting new technologies into a business requires an element of training to get employees up to speed on the latest technologies. Respondents were surveyed on how much emphasis is placed on training their employees on these new technologies.

Respondents revealed that online purchasing platforms was the technology for which employees were most trained with 37.1%, followed by digitalisation (28.9%), VR/AR (27.5%), IoT (26.4%), robotics (21.3%), artificial intelligence (19.4%), big data (17.3%), blockchain (16.9%), drones (15.2%), and advanced software automation (11.5%).

Marketing

Respondents were asked to identify the sources that they use to find information about new energy products and services. The opportunity to interact face-to-face with the industry scored the highest in the survey, across all business segments, with 51.5% of respondents highlighting exhibitions and conferences as the top source of information for new products and services. In addition to this, the top five sources of information were made up of email newsletters (44.3%), websites (43.3%), search engines (34.5%), and social media (29.8%).

Information Sources

Exhibitions and conferences	51.5%
Email newsletters	44.3%
Websites	43.3%
Search engines	34.5%
Social media	29.8%
Online directories	22.2%
Magazine	20.7%
Webinars	15.4%
Word of mouth	13.3%
Ebooks and whitepapers	13.1%
Printed brochures and directories	12.7%
Other	2.8%

Source of information	Manufacturers	Agents / Distributors / Suppliers	Consultancy	Contractors	Sub-contractors	Utilities
Exhibitions and conferences	58%	54%	48%	53%	51%	57%
Email newsletters	36%	40%	48%	49%	49%	48%
Websites	53%	40%	43%	44%	45%	46%
Search engines	42%	34%	38%	33%	33%	41%
Social media	23%	30%	30%	29%	27%	35%
Online directories	23%	16%	23%	21%	28%	20%
Magazine	30%	16%	20%	16%	14%	28%
Webinars	15%	15%	17%	19%	12%	20%
Word of mouth	14%	14%	11%	15%	8%	15%
Ebooks and whitepapers	9%	9%	18%	11%	10%	16%
Printed brochures and directories	15%	13%	12%	10%	11%	19%
Other	1%	2%	4%	1%	3%	1%

When it comes to the procurement of new products and services for business, respondents were asked to identify what they look for. Technical innovations scored the highest in the survey, with 48.8% of respondents identifying this as the primary focus for their procurement for new products and services. Other elements that scored highly were pricing and discounting (40.6%), customer support (37.2%), brand reputation and thought leadership (37.2%), and testimonials (34.1%).

Procurement

Procurement	Manufacturers	Agents / Distributors / Suppliers	Consultancy	Contractors	Sub-contractors	Utilities
Technical innovations	41%	37%	57%	42%	56%	61%
Price and discounting	36%	45%	38%	48%	35%	40%
Customer support	36%	34%	38%	40%	45%	46%
Brand reputation and thought leadership	41%	40%	37%	38%	36%	43%
Testimonials from satisfied customers	33%	31%	36%	30%	39%	37%
Sustainability and green credentials	21%	19%	37%	29%	30%	31%
Distribution network	30%	32%	28%	32%	39%	35%
Product videos and images	24%	25%	22%	23%	29%	21%
Case studies	16%	14%	22%	19%	20%	25%
Other (please specify)	4%	2%	2%	5%	3%	1%

While Consultants, Contractors, Sub-Contractors, Utilities and Manufacturers all identified technical innovations at their primary focus when it comes to the procurement of new products and services, the Agents/Distributors/Suppliers category gave more emphasis to pricing and discounting.

"Emergence of renewable energy would force quality competition and less dependence on grid power which is what my company relies on for revenue. This, definitely is good for the market but my company needs to be strategically positioned in order to welcome and sail on the tide of these new changes."