



BRIEFING PAPER

Impact of Technological Disruption on PwC's Assurance Services in the Middle East

To: Senior Management Team

Middle East Senior Partner

Regional Assurance Leader

Tax Leader

Advisory Leader

Clients and Markets leader, Middle East

From:

Manager, Client and Markets Development

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1a. ORGANISATION OVERVIEW

Organization Name - PwC Middle East.



Organization Information - PwC Middle East (ME) is a member firm of PricewaterhouseCoopers International Limited. It was established in 1979 and now has about 5,600 people in 12 countries across the region. PwC is committed to providing the highest quality auditing (assurance), consulting and taxation services. By improving companies' corporate reporting and providing assurance services, it fulfils its purpose – to build trust in society and solve important problems.

PwC offices in the region



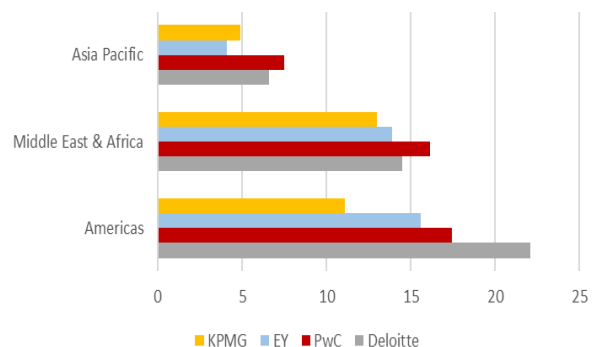
In the Middle East, it operates in a highly competitive environment with three large professional services firms (Deloitte, EY and KPMG) and other small to medium sized players, all competing for a similar market.

Background - PwC ME clients range from multinationals to startups, family businesses and government to charities e.g. Dubai Electricity and Water Authority, Mashreq bank PSC, Emirates, Dubai Aviation Corporation and Dubai Investments Park Development Company. PwC's operation here has enjoyed strong growth, by almost 1/5th in the last year, with the highest revenue among the big 4.

The Middle East has been identified to be at the center of 5 megatrends; demographics, global power shift, urbanization, climate change and technological breakthroughs, and being a vast region with growing population. These trends are raising challenges for businesses and government in the region.

Challenges like disruptive technologies, regulations (e.g. DGPR), evolving customer expectations, continues to change how business is done. Business lifecycle is now more assurance-oriented and stakeholders are more specific in their request to their eco-system; auditors, suppliers, clients, shareholders and regulators. Clients now demand the use of technology effectively to create greater value, more insight and real time answers.

Relative Market Share by Region

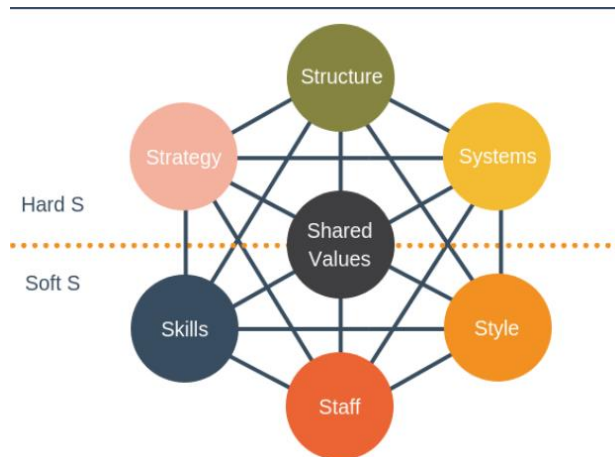


PwC ME is mature in its business approach, as metrics play a key role in process management. With a leadership that is clear about its mission, performance is consistent as client and employee touchpoints are tracked. Processes are continually measured, controlled and reviewed for efficiency and with new audit-support technology (e.g. Aura Platinum, Halo and the Connect suite) quality in audit process is enhanced. While not neglecting lagging indicators, it focuses on leading indicators and measures metrics like effective billable rate, customer satisfaction, brand awareness and market share.

This assignment would focus on the impact of technological disruption on the Assurance service offering of PwC in the Middle East (ME).

1b.

The McKinsey's 7s is the best practice framework for assessing the internal processes & systems in organizations. Due to technological disruption, the needs of the workplace are constantly changing, hence it is required that the elements of the McKinsey framework be kept updated. Using this tool helps to analyze the organizational design within PwC by looking at the elements, the most relevant being strategy, systems, structure and staff.



Strategy - Digitalization requires new skill set, some of which are in short supply in ME, so PwC has built its strategy on 2 components – People Experience and Digital Upskilling. Through programs like 'Digital Accelerator' and "Tomorrow, Today", it enhances innovation and technology skills and responds to client's expectations to deliver a different, more digital experience.

Staff - With an unparalleled range of expertise, employees are equipped with skills that machines cannot do and the most recent

technology for audit support. The region boasts of its preparedness for the workers of the future compared to global.

Workflow

Businesses report yearly that when a company's methodology features workflow management system capability, the results in terms of overall effectivity and cost saving can be from tangible to impressive. More businesses are looking to embrace digital transformation, which means blending digital and physical business, while improving operational efficiencies and performance (Haidukova, 2019).

PwC has a workflow system which allows the use of technology and innovation. It shows a **system** and **structure** which allows some connectivity within teams. The recent adoption of Salesforce as a CRM tool has improved data analysis and gathering on competitor activity.

Validity & reliability – The system is valid but its reliability is as good as data gathered. With no regular clean-ups, some data have become obsolete.

Teams – Teams operate in a matrix workflow management system for cross functional engagements, which encourages collaboration across units. Each team is empowered to own its engagement but only Partners are responsible for risk management and engagement leaders are responsible for delivery of the audit opinion.

Internal Communication – Lines of communication within engagement teams are not so clear and the visibility into customer communications is a process not easily accessible. This is largely due to lack of integration between the CRM and other apps.

Benchmark - An end-to-end view of processes enables companies to shape and prioritize automation initiatives. This allows better, clearer view to pinpoint most appropriate processes and how these can be combined to create more value. A study cited in McKinsey Digital (2018) identified that the addition of smart workflows and other technologies helped increase the scope for automation to 21–27%. Adoption of smart workflow tools helps to track the status of the end-to-end process in real time, manage handoffs between different groups, and provide statistical data on bottlenecks.

For example, KPMG created its Sensory Advantage Ecosystem; a global network of internal and external, human and digital resources that enables rapid and proactive identification and assessment signals of marketplace trends and disruption. These insights help inform strategic decisions and provide sustainable competitive advantage in bringing fresh ideas to help clients accelerate their growth and success (KPMG Global Review, 2018).

Ey is already taking steps to adopt alternative business models that differ commercially from traditional services, where revenue would be generated via a subscription or license for use of the asset (EY Global Review, 2018).

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1c.

Data can be sourced traditionally, offline or digitally to get a view of client behavior and journey. Integration of data is required to find patterns and get a complete picture, aimed at knowing the effectiveness of campaigns, identifying challenges and getting competitive advantage. By integrating data from analytics, campaigns, CRM and any other silos, a single source of truth can be created, and a unified view of the client's journey is easily seen.

As a B2B, clients' journey is a matrix of offline and online touchpoints, involving many stakeholders. To understand the impact of technological disruption on the market, PwC ME has an information system which gathers and analyzes data for strategic decision making.

The desired result is increased market share, brand equity and better customer satisfaction, achieved by tying opportunities, brand awareness and ROMI together through our own tailored marketing campaigns.

Data Sources in order of priority	Reliability/Validity	Source	Metrics
Annual Report	Reliable & Valid	Online (external)	Market Share
Research & Insights	Reliable & Valid	Online (external)	Brand Equity
Client Feedback	Reliable	Offline (external)	Customer Satisfaction
Salesforce report	Valid, reliability depends on source	Online (internal)	Revenue/Opportunities
Web & SM report	Valid	Online (external)	Brand Awareness
Marketing report	Valid	Offline (internal)	ROMI

Online data & Marketing reports – With over 3.2 billion people on social media globally (Demidchick, 2018), businesses leverage on Social Media platforms to increase brand awareness and reach. In the UAE, 70% of people rely on social media for purchase inspiration (IFP, 2019).

Though valid, online data and marketing reports have low reliability. Reports from online sources and marketing team activities were analyzed for brand awareness and Return on marketing investment (ROMI). Reports on marketing activities like sponsorships, events, speaking engagements and response to proposals, combined with website traffic, page views, bounce rates and engagements gave indications of how visible the brand is. ROMI values showed the effectiveness of various marketing campaigns.

Measuring where people are talking (channels) and what they were saying about the brand revealed their knowledge of PwC's competencies and service offerings, which was used to optimize creative

marketing campaigns. For instance, PwC events are advertised online to allow measurement of lead activity. Targets are encouraged to register and download collateral online; this drives traffic to the website. At event, details of attendees are taken or verified, for onward upload on database. Post event, personalized emails are sent to attendees. It is important that clients experience consistency in brand experience on all channels; this inspired trust.

Competitor Intelligence gathered identified how KPMG remodeled its digital transformation proposition using offline (Financial Times cover) and online (digital media) channels. This campaign delivered an average CTR of 0.2%, double the industry benchmark of 0.1%, 2,468 client company engagements amongst other things (B2B Case Studies, 2018).

CRM & Client Feedback Report – Using Salesforce as a CRM tool gives a 360° view of client needs and business, leading to better experience resulting from effective collaborations, efficient employee engagement and data-led decisions. The report identifies revenue opportunities, trends and threats within the industry. Though its reliability is largely dependent on its original source before it was entered into the system, CRM data valid.

PwC's Client Experience is a reliable way of measuring client satisfaction and journey within the funnel.

Integration of both data sources gave insight into clients' expectations regarding service delivery, revenue generated, industry specific challenges and business opportunities within the pipeline. Frequent monitoring helps us identify client's pain points early enough.

Such holistic view of client's business and satisfaction ratings generated from CRM & feedback reports was bases for a segmentation analysis which birth a business development initiative – Priority Account Program in PwC.

Performance = Market Share + Brand Equity + Customer Satisfaction

Annual Report & Research Insights - A company's annual report shows the financial state of that company. Information on risk factors, view of the upcoming year and the market position (market share) and prospects, can be deduced from it. Annual report is a very reliable and ethical data source, as it has gone through levels of verification.

PwC's business intelligence team is very vibrant, and its findings are accurate, valid and reliable. Access to the global intelligence team is also an added advantage. Research from industry news, competitor website etc. gives endless insight e.g. market behavior, brand performance and competitor activity, which can help us identify strengths and weaknesses in particular industries.

This data set was used to measure brand equity (perceived value, sentiment, loyalty) and market share. Knowledge of market behavior and competitor activity (competitor intelligence) is important in determining pricing and making strategic decisions.

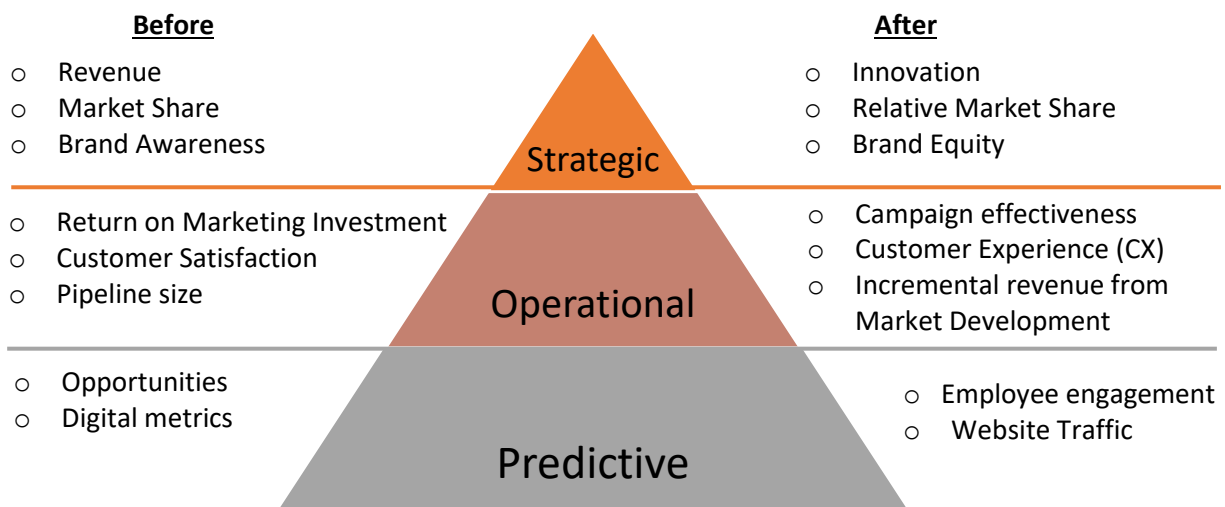
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2a.

The assurance services market is evolving very fast due to emergence of technological advancement like artificial intelligence (AI), data analytics, blockchain and machine learning. This is signaled by the rapid increase in data volume, changes in business models, the shift towards automation and the demand for a proactive and forward-looking approach to audit (ACCA Global Report, 2019).

A recent PwC AI report (2019) identifies the potential impact of technological disruption, particularly AI in the Middle East. AI is expected to disrupt markets in the Middle East through new business models, changing customer expectations and creation of new services. \$320 billion would be added to the GDP by 2030, 14% of which would be in the professional services industry.

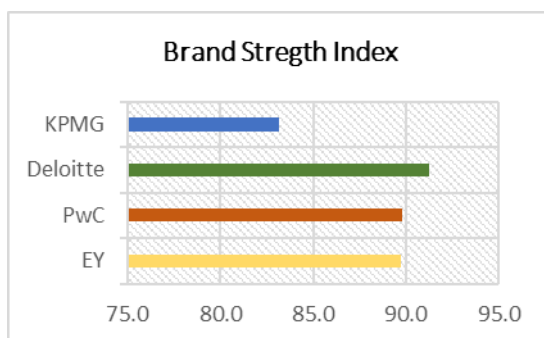
See below metrics used before and after technological disruption:



$$\text{Performance} = \text{Relative Market Share} + \text{Brand Equity} + \text{Innovation} + \text{Customer Experience}$$

Revenue tells if marketing efforts are paying off and if clients are willing to continue to pay for service rendered. Revenue could be a short-term metrics because it can be affected by factors like competitor activity, environmental challenge etc. It becomes more relevant when measured as **incremental revenue derived from innovation**. Note that innovation in a segment could influence other segments within the firm, leading to revenue growth. For example, EY recorded a 4.4% revenue growth in its assurance service as a result of innovations through digital technology (EY Press Release, 2018).

Innovation can be a by-product of disruption which yields business growth. A measure of investment in R&D towards new product development would indicate the effectiveness of the market development strategy. For every dirham spent on R&D, how much revenue is generated from the new service? high conversion rate indicating effective deployment of resources. How is the gross margin performance relative to the new product, compared with competitors? high margin could signify an efficient innovation pipeline and that the service offering command a margin in the market.



Brand Equity – is not measured by revenue or assets and liabilities but by perception and sentiments, driven by branding, marketing and customer experience. Measuring brand equity gives a complete view of awareness, perception, image and

association, bases for competitive advantage. Brand Finance (2019) says EY is the fastest-growing brand in value and strength among the Big 4, with Brand Strength Index (BSI) of 89.7. However, with a brand value of \$24,89 and BSI of 89.8, PwC can command price premium in the professional services industry.

Market Share focuses on shares of revenue, supposing the strength of the company in the market. PwC ME has enjoyed steady growth in revenue; recording a 19.2% revenue increase (2019), 12% (2018) and 8% (2017). Comparing with its largest competitor-Deloitte, PwC has held a steady **relative market share** of 25% for 3 years in the region.

ROMI – is the measure of how much revenue marketing campaign is generating. Measuring campaign effectiveness is more effective as it covers more grounds like cost per lead, incremental sales and ROI. This broad view would allow optimization of campaigns.

Customer Satisfaction – PwC's Global Consumer Insights Survey (2019) shows that technological tools available to customers have put them in a position to demand a tailored, channel-agnostic, socially conscious and social-media-powered experience. The '**return on experience**' (ROX) framework identifies company's strength and leverages them to ensure that business processes are aligned towards achieving performance, as a result, honing on its unique positioning; competitive advantage.

For instance, to help their largest and strategic clients deliver meaningful and cost-effective experiences with their customers, KPMG is working with Google Cloud through its Connected Customer Service solution which enables interactions that improve customer experience and the bottom line, using data & analytics, artificial intelligence and machine learning (KPMG Global Review, 2018).

Employee engagement is the strength of employees' emotional commitment to the brand purpose. Engaged employees give better operational results and they are important in measuring ROX, as clients interact with the brand through employees. PwC's workforce is quite young and do not see becoming a partner as reward for high levels of engagement. Engagement Drivers include leadership (especially at BU level), performance (Learning & Development, Performance & People management, Reward & Recognition), collaboration at work, others like benefits.

Opportunities – Available opportunities is measured using the CRM tool which shows sales process. The client's journey through the funnel; how many people actual complete the journey and incremental revenue derived from new products or clients should be measured.

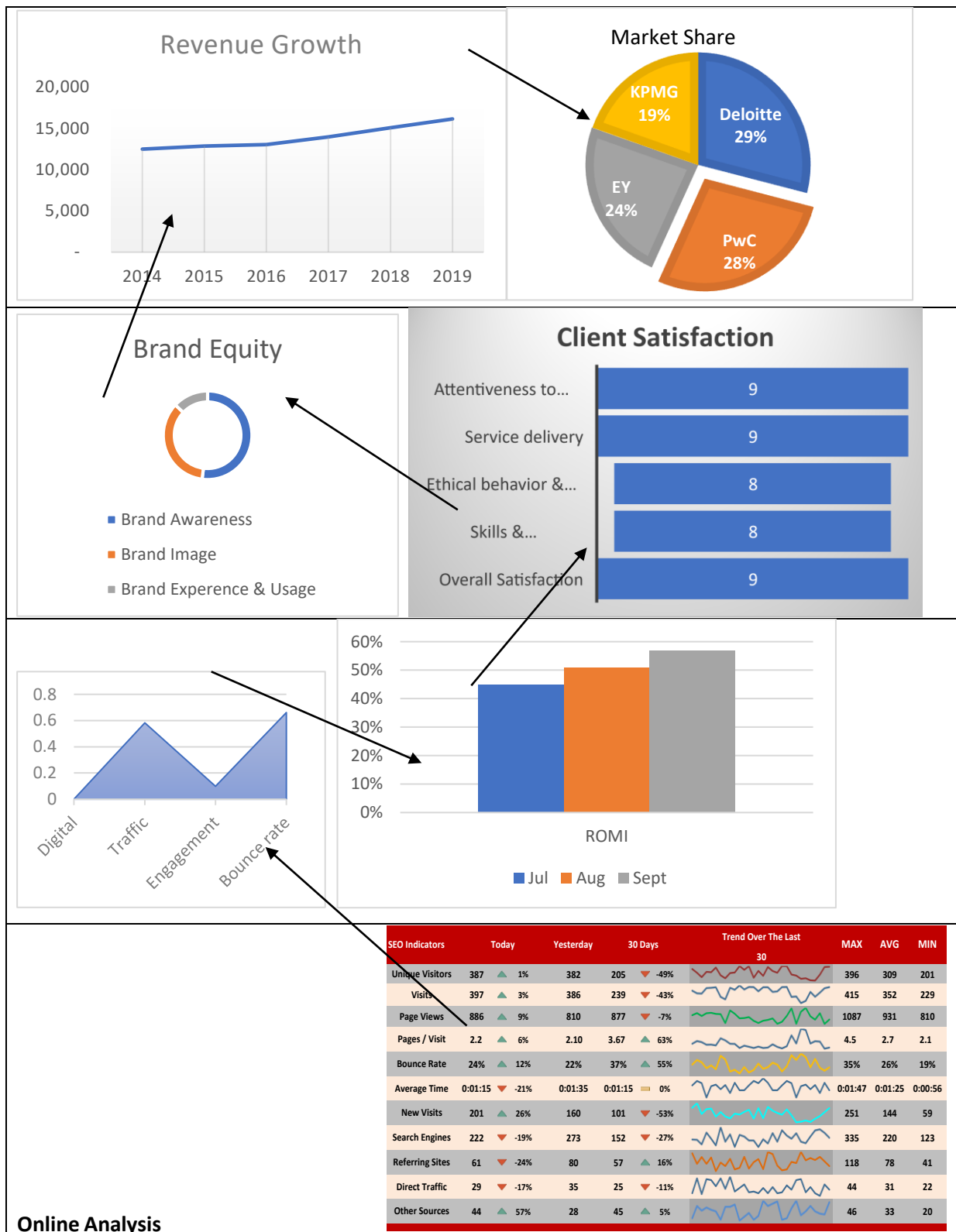
Digital Metrics would always be important; measure of traffic, share of voice and engagement are indicators of brand awareness. Tracking conversations about the brand and its competitors is indicative of perceived brand value and competitive advantage.

Automation of data collection process is necessary, due to the volume of available data available. In the region, firms have Centers of Excellence; appropriate infrastructure needed to eliminate chaos, that support an innovation culture. In 2009, Deloitte's International Tax Center of Excellence in Dubai was launched, PwC's KSA office recently started off its Assurance Center of Excellence in Al-Khobar.

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2b.

A marketing dashboard is a reporting tool that displays marketing analytics using data visuals, used to measure performance and efficiency. I have created a marketing and brand dashboard below:



Assumptions – Figures used are representative and not actuals.

- Online analysis feeds into return on marketing investment – e.g. web traffic engagement as a part of the effectiveness of marketing campaigns.
- Client Satisfaction influences Brand Equity, which affects revenue growth and increases relative market share.
- High client satisfaction rating is indicative that our clients would be happy to refer us.
- Digitally, there is need for more engagement on our website – the traffic is high, but they do not engage. This may be due to a -11% decline experienced in direct traffic within the 30 days measured. We can improve this by optimizing our channels and testing new ones and trends (such as voice search, Augmented Reality, Virtual Reality, Digital Out of Home, etc.)
- Competitor intelligence shows that only EY has a vibrant online presence – we can develop strategies to fill this gap and set up marketing for the brand accordingly.
- Over the last 3 years, the region has recorded steady growth in revenue, better than its competitors. This is a pickup from 2016 when there was a decline. Its resultant effect is an increase in market share. Though Deloitte has a higher share, but by only 1% - a gap that can be closed with good strategic decisions.
- Our assurance services hold a lot of promise despite being a highly competitive market and challenges of mandatory rotation.

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2c.

Structural integration within the organization helps with measuring metrics across various functions, which allows for change monitoring and anticipation. Collaborative technology platforms like ERP systems (e.g. Oracle, used in PwC) are used to provide high level analysis shared during meetings like PwC's quarterly strategy meeting of Partners and directors. Most ERPs are compatible with mobile devices allowing real-time updates for identifying changes.

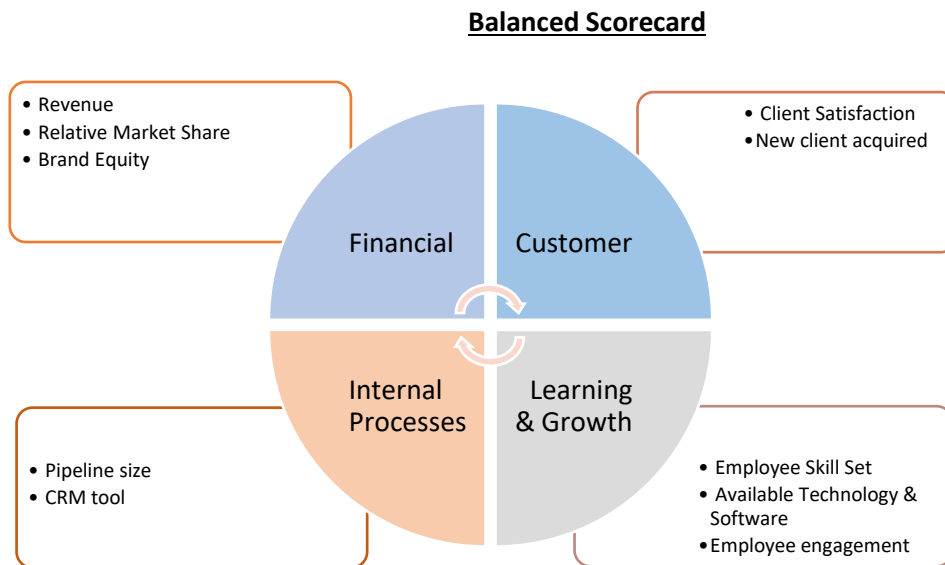
The balanced scorecard is also a management system used to align business activities to the vision & strategy of the organization, improve internal communications and monitor performance against strategic goals (CIM, 2014).

Strategic level – (Partners & Directors). Performance here is determined by incremental revenue and relative market share. Measuring incremental revenue and relative market share, derived from monitoring competitor activity over time, reveals industry trends and challenges. Using an ERP system to measure real time changes is crucial in identifying changes and responding swiftly. Measurement of sales opportunities can be used to optimize ROI achieved at different stages of the funnel.

The effectiveness of the marketing strategy can also be seen from these data. How much revenue can we forecast from predictive analysis of available data? What client(s) contribute the largest to revenue?

Operational level – (Business Unit Managers & Senior Managers). How effective are marketing campaigns? This is measured from conversion rates: proposal to engagement, opportunity to leads. As we aim to increase pipeline size, there should also be a regular monitoring and updating process. Measuring performance across client life cycle shows which areas require attention. It is important for every organization to have a complete revenue cycle. At PwC, the Pursuit business development framework used to show client's journey through five steps: Target, Interact, Propose, Close, and Exceed Expectations is very effective when adhered to.

Functional Level – (Digital brand executives, Graphics designers and R & D executives). Thought leaderships and insights from research findings are typically hosted on the website & social media platforms to create awareness and visibility for the firm. The website particularly serves as a hub, a one-stop-kit for marketing programs. It is important to measure the performance of these channels with regards to overall traffic, engagement rate (comments, applause, downloads, volume of mentions), most visited pages and time spent on site to identify industry trends and changes. Data gathered are indicators of the effectiveness of channels and content.



Measuring revenue and relative market value would help anticipate trends and changes, which would help in strategic decisions regard acquisitions, go-to-market approach etc. The importance of client satisfaction cannot be over emphasized in business as other metrics are hinged on it. A satisfied client leads to increased revenue and brand equity. Regular feedback from clients will enlighten us of their expectations and channels which could lead to new product development.

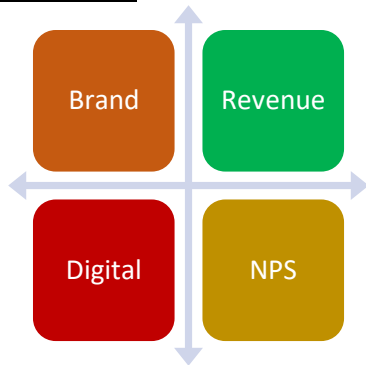
Our internal processes need regular review for maximum efficiency and effectiveness. Regular review of our CRM, ERP and audit-support tools to meet up current industry standards added to upskilled human resource will improve service delivery that would pay off in satisfied clients. By making up-to-date and relevant technology available, employees can work better and faster.

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3a.

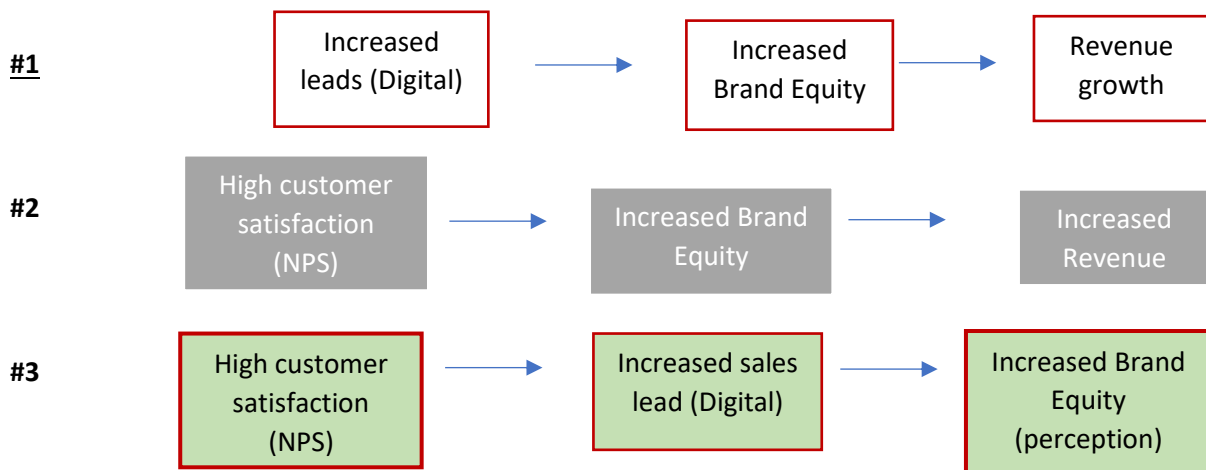
Data driven organizations make better strategic decisions, enjoy high operational efficiency, improved customer satisfaction, and robust revenue levels. Data-centered organizations are 23x more likely to acquire customers, 6x as likely to retain those customers, and 19x as likely to be profitable as a result (Singh, 2018).

After identifying the best metrics, I have categorized them into themes, showing how they influence strategic decisions through trend analysis, scenario planning and forecasting.

Metrics themes**Scenario Planning**

A good CRM provides insight into size and quality of sales pipeline e.g. Salesforce for monitoring pipeline activities and sales performance. The effectiveness of salesforce and engagement team is strategic to growth because it helps measure the impact of retention.

See 3 scenarios:



Trend analysis - Through the power of big data, data can be correlated for trend analysis in order to identify challenges and risks. Measure client behavior at different points of the journey to determine trend.

Trend analysis is used to determine effectiveness of channels and campaigns. PwC's site has high engagement and bounce rates (65.9%) indicating a need for modification in brand awareness strategy. PwC is the assurance leader for 3 years, accounting for 70% revenue in 2019, 69% (2018) and 68% (2017) (PwC Global Annual Review, 2019). The consistency indicates that PwC holds an advantage in its assurance service offering.

Forecasting – Availability of real - time data is changing model for data gathering; business strategy is moving from problem solving towards preventive. Potential challenges can be identified earlier in the process so that an advisory approach can be adopted. By anticipating challenges, risk and controls are monitored and addressed early enough.

The future of assurance services requires **predictive modelling** that allows forecasting the implications of strategic decisions and campaigns. These predictions act as guidelines for comparing strategies for different industries, that gives a broad view of the financial impact of actions.

Measurement of **Engagement-related metrics** that shows which engagement strategy is most efficient in conversions is important, to monitor timings of online engagements. For instance, in order to engage with each client uniquely and accurately, this is used to determine communication channel and content as well as best time to interact with the specific client segment.

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3b.

Latest trends in metrics are more client-centered and tends toward outcome than activity, engagement rather than followership, organic reach than total reach.

Blockchain technology is used to drive growth in many industries. E.g. LaVis, a big wine producer in Italy is one of the first to sell blockchain-certified wine using EY Ops Chain; a set of applications and services designed to help organizations commercialize the use of blockchain technology across their enterprise. LaVis' bottles come with a smart label – a unique QR code – that the buyer scans (EY Global Review, 2018).

Personalized Client Experience – Most innovative companies are getting results from using **Big data** to learn about their clients. Access to more data enables analysis of bigger samples, which increases probability of identifying challenges. Big data can uncover the best channels for content dissemination, information about clients that are best fit for the firm, strengths and weaknesses of processes.

Econsultancy Digital Trends report (2018) revealed that delivering personalized experiences in real-time is the most exciting opportunity for digital and marketing professionals. In future, optimizing client experiences across multiple touchpoints will become top priority.

Artificial Intelligence (AI) helps with delivery of personalized instant engagements, reflective of previous interactions and personal preference. The knowledge of possible emerging threats or client's expectation guides strategic decision making, used for market development, website content update and predictive analysis. 29% of marketing organizations have adopted AI, and an additional 46% are piloting or planning to use it within two years. Of those marketers using AI, 88% claim at least moderate ROI from their investment, with over half reporting major ROI (Elson, 2019).

A merger of digital and physical engagement improves service and response to client needs. E.g. Burberry, a British fashion brand, uses big data and AI to enhance processes, boost sales performance and customer satisfaction. Insight from customers who use their loyalty and rewards programs through a mobile app, is used to deliver relevant recommendations for both online and in-store purchases. Because all products in Burberry stores have unique RFID tags, a mobile app experience communicates with shoppers directly about various goods whenever they visit a store. Shoppers can see product origin, or even get tips on how to style them (Sykes, 2018).

In audit industry, AI is used to analyze billions of data points in milliseconds and detect errors in ledger, e.g. the PwC GL.ai. which was named the audit innovation of the year in 2017 (PwC Global Press Release, 2019).

Deloitte's Enterprise Risk Framework (ERF) is designed to vigilantly identify, manage, monitor and respond to risks. The ERF includes processes to analyze the internal and external environment for developments that could impact Deloitte's risk exposure and identify and respond to emerging trends that could affect the Deloitte network's resiliency to those risks (Deloitte Global Impact Report, 2018).

The trust factor – Client trust is declining due to security scandals and privacy issues; it has become very important for firms to focus on building trust and credibility. Creating incredible, insightful, trustworthy content and leveraging reliable data for the right purpose would show that the brand can be trusted.

Triple bottom line reporting - There is a growing increase in awareness of Sustainability and the need for businesses to put its people and environment first. Stakeholders & shareholders are now concerned with firm's Corporate Social Responsibility performance. People, profit and planet accounts make up the triple bottom line and metrics must reflect this framework in organizational strategy. So Financial (revenue) and non-financial (CSR) information are now included in reports.

Flexible work policy which allows employees work remotely, has been identified to promote delivery of exceptional client service and retaining of talented professionals.

Collaborative working enabled by technology is now a trend at project level. Technology advancements are enabling project teams to communicate across different locations.

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3c.

Businesses are increasingly looking for ways to improve performance and the quality of their processes to gain a competitive advantage. Using business metrics effectively as a standard for measuring progress and accountability helps to achieve this.

Benefits of metrics analysis in strategic decision are:

- **Creates clarity and drives organizational strategy:** A clear view of the organization's performance rate reinforces the drive to achieve strategic objectives and identifies any changes. Business leaders make decisions by leveraging on metrics analysis. E.g the agreement between Commercial Bank of Dubai signed and PwC ME was strategic to their Digital transformation vision. PwC's acquisition of UAE-based data analytics consultancy; Teambase, in a bid to expand its big data and digital transformation capabilities (Consultancy-me, 2019).
- **Point of focus for management and staff:** Metrics analysis shows stakeholders the direction in which the organization is heading. As the organization progresses, metrics is reviewed and improved. An effective metric gives employees an objective way to measure their progress and success, and it helps them stay motivated by enabling recognition for their good work (EY report, 2018).
- **Effective decision-making tool:** Metrics provide information about cost, resources and time – basic details needed for decisions making. Balancing insight from metrics (e.g. return on investment, sales pipeline velocity and customer acquisition cost), enhances strategic

decisions making. A good understanding of internal processes guides better business decision making. Trombetta, J. (2015) in a LinkedIn article stated that “success is more easily achieved when companies are well-informed about their internal organizational environments, bringing them to have an in-depth knowledge of the entire business. What is the most effective tool that informs and guides decision-making? **Metrics**”.

- **Increased revenue:** The aim of every business is to make profit by increasing its revenue. Effectiveness of marketing campaigns is measured against set metrics. Whitler, K.A (2015), in a Forbes article indicated that a good way to measure incremental revenue growth is to do extensive baseline testing. This testing can include measuring sales levels pre- and post-marketing, or even testing digital metrics for revenue and profit against a control group. Depending on the industries, direct tracking may provide a measure of marketing cause-and-effect.
- **Improved Client satisfaction:** Measuring customer satisfaction enhances delivery of customer experience, which is key to the success of any business. Measuring customer satisfaction helps reduce churn rate and boosts customer loyalty. As data tells what the customer wants, making decisions based on its analysis would lead to improved client satisfaction and experience. Customer satisfaction rating is usually carried out through feedback forms and surveys. Social media is also a tool as clients can now easily air their view on platforms. Net Promoter Score is a valuable metrics used to determine whether a customer is a promoter, passive or detractor. The goal would be to convert as many as possible to be loyal promoters.

Some of the limitations of metrics are:

- **Integration of data-** Too much data can be confusing and if not properly integrated it would cause more harm than good. Metrics analysis requires certain levels of expertise and technology that may not be available to small organizations. Significant amount of the 5Vs of big data (volume, variety velocity, value and veracity) could prove a challenge, if not properly integrated and analyzed.
- **High cost-** Data generation and analysis is capital intensive, especially for primary data. Some organizations lack the funds to conduct market research to gather data, so they are forced to rely on secondary data which may not be reliable.
- **Accuracy & quality of data-** The value of an analysis depends on the accuracy of the data. Analysis of low-quality data would only lead to poor decisions. There is need for continuous review of metrics to make strategic decisions relevant to the stage of the business.
- **Measuring the wrong metrics-** Choice of appropriate metrics is fundamental to strategic decision making. Metrics are designed to measure progress, as the business grows, some metrics becomes obsolete. Relevant metrics must be analyzed in order to get minimize error that would affect decision making.
- **Reliability-** The reliability of metrics is important to its interpretation. High email subscription rate may be valid but not reliable, if the subscribers are not opening the mails. Subjective metrics like customer loyalty should be balanced with more reliable metrics for effective decision making.

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REFERENCES

- ACCA Global Report (2019), *Audit and Technology*
<https://www.accaglobal.com/content/dam/ACCA_Global/professional-insights/audit-and-tech/pi-audit-and-technology.pdf>, [assessed October 2019].
- B2B Case Studies (2018), *How KPMG influenced £35 million in new business by blending digital and offline media*, <<https://www.b2bmarketing.net/en-gb/resources/b2b-case-studies/awards-case-study-how-kpmg-influenced-ps35-million-new-business-blending>>, [assessed November 2019].
- Brand Finance (2019), *Global 500 2019*, The annual report on the world's most valuable brands <https://brandfinance.com/images/upload/global_500_2019_locked_2.pdf>, [assessed November 2019].
- CIM Official Module Guide (2014), *Mastering Metrics*, Second edition, 2017, Chartered Institute of Marketing, Berkshire, UK.
- Consultancy-me (2019), *PwC picks up consulting division of UAE data analytics firm Teambase*, <<https://www.consultancy-me.com/news/2078/pwc-picks-up-consulting-division-of-uae-data-analytics-firm-teambase>>, [assessed November 2019].
- Deloitte Global Impact Report (2018), *A new mindset for action*, Pp 29.
- Demidchick, Pavel (2018), *Social Media Monitoring, Social Media Trends*, <<https://awario.com/blog/36-surprising-social-media-statistics-you-should-know-in-2019/>>, [assessed November 2019].
- DIFC Press Release (2019), *"Digital adoption and cybersecurity are the top challenges for Middle Eastern businesses"*, <<https://www.difc.ae/newsroom/news/digital-adoption-and-cybersecurity-are-top-challenges-middle-eastern-businesses/>>, [assessed November 2019].
- Econsultancy Digital Trends report (2018), *Digital Intelligence Briefing*, <<https://www.images2.adobe.com/content/dam/acom/au/landing/DT18/Econsultancy-2018-Digital-Trends.pdf>>, [assessed November 2019].
- Elson, Sophia (2019), *The Latest Trends in Marketing Metrics and ROI*
<<https://www.salesforce.com/blog/2019/08/trends-marketing-metrics-roi.html>>, [assessed November 2019].
- EY Global review, (2018), *How do we create value and build trust in this transformative age?* Pp 8, 19.
- EY Press Release (2018), *EY reports record global revenues of US\$34.8b in 2018*, <https://www.ey.com/en_gl/news/2018/09/ey-reports-record-global-revenues-of-us-dollar-34-8b-in-2018>, [assessed November 2019].
- EY Report, (2018), *Metrics Matter: Insights on governance, risk and compliance*, Pp 3.
- Haidukova, E. (2019), *Top 11 Workflow Management System Trends and Features for 2019*
<<https://www.comindware.com/blog-workflow-management-system-trends-features/>>, [assessed October 2019].

IFP article (2019), *How to Measure Brand Awareness*, <<https://www.insightsforprofessionals.com/marketing/digital-marketing/how-to-measure-brand-awareness>>, [assessed November 2019].

Jogani, R. Kaniyar, S. Koul, V. and Yum C. (2018), *How to avoid the three common execution pitfalls that derail automation programs*, <<https://www.mckinsey.com/business-functions/mckinsey-digital/our-insights/how-to-avoid-the-three-common-execution-pitfalls-that-derail-automation-programs>>, [assessed November 2019].

KPMG Global Review (2018), *The future delivered together*, Pp 15, 22.

Maxwell, J. (2019), *ROX id the New ROI: Prioritizing Customer Experience* <<https://www.strategy-business.com/blog/ROX-Is-the-New-ROI-Prioritizing-Customer-Experience?gko=51063>>, [assessed October 2019].

PwC (2019), *Global Annual Review*, <<https://www.pwc.com/gx/en/about/global-annual-review-2019/people.html>>, [assessed October 2019].

PwC AI Report (2019), *The Potential Impact of AI in the Middle East Report, 2019* <<https://www.pwc.com/m1/en/publications/potential-impact-artificial-intelligence-middle-east.html>>, [assessed October 2019].

PwC Global Press Release (2019), *Harnessing the power of AI to transform the detection of fraud and error*, <<https://www.pwc.com/gx/en/about/stories-from-across-the-world/harnessing-the-power-of-ai-to-transform-the-detection-of-fraud-and-error.html>>, [assessed November 2019].

PwC's Survey (2019), *Global Consumer Insights*, <<https://www.pwc.com/gx/en/consumer-markets/consumer-insights-survey/2019/report.pdf>>, [assessed November 2019].

Singh, H (2018), *Using Analytics for Better Decision-Making*, <<https://towardsdatascience.com/using-analytics-for-better-decision-making-ce4f92c4a025>>, [assessed November 2019].

Sykes, Nathan (2018), *5 Companies Using Big Data and AI to Improve Performance* <<https://www.kolabtree.com/blog/5-companies-using-big-data-and-ai-to-improve-performance/>>, [assessed November 2019].

Trombetta, J. (2015), *Metrics: The Best Tool For Guiding Decision-Making*, <<https://www.linkedin.com/pulse/metrics-best-tool-guiding-decision-making-jacopo-trombetta>>, [assessed November 2019].

Whitler, K.A (2015), *How Can Marketers Drive Measurable Revenue Growth?*, <<https://www.forbes.com/sites/kimberlywhitler/2015/02/10/how-can-marketers-drive-measurable-revenue-growth/#6e84e2bc112d>>, [assessed November 2019].