

# Report on

## The role of Business Analysts in the Healthcare industry

Name : Jason Ching Yuen, Siu ( 31084222 )

Course Name : *FIT1049* - IT professional practice

Instructor's Name : Sarthak Girdhar

Faculty of Information Technology

25 August 2020

## **Introduction**

The ubiquitous buzzwords like AI and digital transformation, a sign of era of industry 3.0. created new jobs like Business Analysts (BA) in the 21st century. One of the biggest confusion is the ambiguous job descriptions of a BA. Therefore, to provide a clear explanation, the report is to first tell who a BA is, then skills needed as a BA as well as one of the industry landscapes of a BA.

### **1. Who Is a Business Analyst ?**

Despite various types of business analysts, a BA is a facilitator among stakeholders. According to the definition of IIBA, "A business analyst works as a liaison among stakeholders to elicit, analyse, communicate and validate requirements for changes to business processes, policies and information systems." ( IIBA, 2015 ). As digital transformation is complex in every aspect ( Deiser, 2018, p.6 ), an organisation without BA often leads to miscommunication between stakeholders like business and IT teams. Developers understand the wrong scopes and have to recode the solution, missing performance goals ( 25% ) and damaging the teams' morale ( 31% ) ( Seiner, 2011 ). On the contrary, BAs, as a facilitator, translate requirements in ways that clients and developers understand. They identify issues with organisation, vendors, and even customers, elicit their respective needs, and define as well as articulate business vision, criteria and requirements to developers. Therefore, the facilitation of BAs are cost-effective.

BAs analyse and optimise business processes to achieve business goals. Since only dynamic business models can emulate dynamic changes in our digital world, organisations must execute their business strategy fast and reliably after modifying their business processes ( Kirchmer, 2017 ). BAs play one of the key roles to map existing processes to define the purpose of enhancement. They use techniques like six sigma and TQM to assess and remove redundant and convoluted processes. The agile business structure allows organisations to minimise pertinent risks, save costs, improve performance and, most importantly, meet customers' demands. Therefore, one of the duties for a BA is to optimise business processes to maintain organisations' competitive advantages, adopting this fierce environment and capitalising on its opportunities.

BAs support the technical implementation to validate solutions. For example, a BA is required to perform UAT as a part of validation. As an all-rounder in projects, "BAs have the knowledge to understand and validate that the system meet its requirements." ( Thembiliyagodage, 2015 ). Assisting the IT team in evaluating the nature of defects and which defects need to be fixed before going-live, BAs decide what can be done to reduce its impacts of the remained defects that can not be fixed ( Business Analyst Learnings, 2014 ). Also, understanding project objectives after discussing with stakeholders allows BAs to test from the perspective of a user. They ensure the alignment of the needs of business units with the IT capabilities. Hence, by validating solutions, BAs ensure to fulfil clients' requirements.

### **2. Why and How are these skills needed to be a business analyst ?**

Having described who a BA is and the importance of its duties, the following reports what skills are required so as to make one employable and how they are applied into the workplace.

#### **► 2.1. Qualification of BA :**

1. A bachelor's degree in Business or IT related field, or above
2. IIBA Certified Business Analysis Professional ( CBAP ) ( if required )

#### **► 2.2.1. Soft skills 1 : Communication**

As mentioned above the essence of communication, not only should one excel in writing skills for documenting, but also verbally. The Greek philosopher Epictetus said: "We have two ears and one mouth so that we can listen twice as much as we speak." It means communication is about listening and persuading. BAs are required to be good listeners to understand what are being said and clients' motivation behind such that they can elicit the right needs from clients ( Dsvgroup, 2019 ). Also, asking good questions and summarising what clients and team members said makes them feel respected and understood. BAs entail to facilitate instructions to fulfil clients' requirement. BAs must articulate the right message with the right stakeholders at the right time and in the right tone.

► **2.2.2. Soft skills 2 : Facilitation and organisational skill for stakeholder management**

There often are meetings for BAs to facilitate. It is essential to know how to manage all stakeholders and know how much power and influence they have on your project ( Cockburn, 2015 ). After listening from stakeholders, BAs need to synthesise and prioritise their requirements and how they manage stakeholders individually.

► **2.2.3. Soft skills 3 : Analytical thinking & critical thinking**

Both skills are required whenever performing business analysis. A common situation is stakeholders raise requirements for increasing their convenience over needs (Deshpande, 2018 ). Therefore, critical thinking plays a vital role in identifying which truly brings business values and which can be less prioritised. Furthermore, BAs' analytical thinking is needed, for example, when using data analytics to justify why certain steps exist in a business process. Then by reviewing documentation and modelling processes, they often unearth the redundant or automatable steps ( Business Analyst Learnings, 2013 ). Being critical and analytical is one of the greatest assets a BA could bring to organisations.

► **2.3.1. Technical skills 1 : Data analytics & BA tools**

BAs investigate past and current business data to obtain valuable insights and support more decision making ( IIBA, 2020 ). They use diagramming tools like Lucidchart to depict the process flowchart in a visual manner and MS Excel to analyse data. It is required to master business intelligence tools like Tableau and present the insight drawn through reporting using MS Words or MS PowerPoints. These skills appeared in over one-third of the online job advertisement for BAs, indicating its importance ( Cleary, 2016 ).

► **2.3.2. Technical skills 2 : Knowledge in RDBMS and SQL**

Besides knowing data analytics, database knowledge has evolved from a “nice-to-have” to a “must-have” skill ( BACentric, 2019 ). Nowadays organisations mostly are in favour of using RDBMS. "By 2024 the converged RDBMS and NoSQL/NewSQL market segment will weigh two-thirds of the \$60 Billion database market." ( Market Research Media Ltd, 2018 ). BAs are required to find patterns through querying or extracting databases to analyse, prototype them, perform data management and report. Moreover, applying RDBMS technology helps BAs understand BI like the data flow from applications into data warehouses and analytical products ( Sansa Technology, 2010 ). Therefore, understanding SQL and RDBMS eases BAs performance analysis.

► **2.3.3. Technical skills 3 : Knowledge in business structures and methodology**

On top of the above skills, there are specific skill sets for all types of BAs. They need to understand and apply business models and hierarchy in order to properly identify requirements. In addition, one must have an understanding of frameworks in Waterfall and Agile and methodologies like SixSigma for quality controls. These understanding help explain business processes to be followed for development, what happens, when in the development cycle, and plan the analysis, elicitation, and other activities accordingly ( Robin Gupta, 2020 ).

### **3. Industry brief outlook :**

1. WHO estimated that US\$ 7.8 trillion is spent in 2017 globally on health ( WHO, 2019 )
2. In 2019, the estimated revenue of the industry was US\$2,487.7 billion ( Statista, 2020 )
3. With the drive of population growth, increased economic power and expansion of the healthcare system, it is acknowledged that the patient data will keep exploding ( Deloitte, 2020 )

#### **3.1. What are challenges healthcare industry facing ?**

- Challenge 1: Without healthcare information system (HIS) to transform, health records are more disorganised and mistaken:  
Clunky paper charts tied by Healthcare professionals easily are lost, damaged or misinterpreted ( South University, 2019 ) ; accordingly, "The impact on the cost and quality of clinical care has been modest, and productivity growth in the sector continues to lag that of other industries." ( Sahni ; Huckman ; Chigurupati ; Cutler, 2017 ).
- Challenge 2: Without HIS to analyse, Electronic Health Records cause much data waste :  
Huge amounts of data are unable to be transformed into information. The digital transformation of medical records has been successful. However, "Few dispute that organisations have more data than ever at their disposal. But actually deriving meaningful insights from that data—and converting knowledge into action—is easier said than done." ( McKinsey, 2016 ).
- Challenge 3: Without HIS to optimise, the change of policy remains an inefficient process:  
While policies keep changing rapidly ( Julie Rovner, 2020 ), many processes in the healthcare system remain inefficient. In the failure of care delivery, failure of care coordination, and overtreatment or low-value care categories, it is stated that more than \$200 billion is wasted in the US healthcare system. ( Shrank, Roasted & Parekh, 2019 ). One can imagine how the process of reimbursement can be sophisticated, without process optimisation.

#### **3.2. How BAs bring value in solving the challenges above for healthcare industry?**

BAs, as experts in information system, besides playing key roles in data management in tackling challenge 1, are also required to utilise their skillsets like applying big data into analysing how healthcare activities can be optimised and investigate potential solutions. The purposes of which are to make healthcare more convenient for patients and reducing costs for organisations via less paperwork, better safety, reduced duplication of testing, and improved health ( Roth, 2019 ), thus alleviating burden of challenges 2 and 3.

The evolving role of BA brings a bright prospect. Professionals used to work in Waterfall methodology have now switched into Agile philosophy. Business analysis is no longer only building healthcare systems but also algorithms to reduce human errors. Also, BAs' skill set such as communication is needed beyond the basic facilitation between clients and teammates but have extended to new subjects like training nursing informatics. They can tutor nurses in data management. While IT and healthcare industries keep booming ( Martin, 2018 ), there can be no doubt that IT professionals like BAs in hospital settings are growing every year ( South University, 2019 ), let alone the effect of Covid-19.

### **Conclusion**

The above points concludes why and how the numbers of BAs keep growing. Knowing the details of BAs, one can notice they work with different groups of people, ranging from technical teams to end-user for the sake of achieving clients' objectives. Then, the following section explained when and how both soft and hards skills can be applied corresponding to the mentioned duties. Lastly, it is understood that why healthcare industry is in desperate need of BAs to solve its challenges.

## **Reference :**

- International Institute of Business Analysis [IIBA] ( 2015 ), About IIBA®, Retrieved from <https://wisconsin.iiba.org/about-iiba>
- Deiser, R ( 2018 ), p.6. Digital Transformation Challenges in Large and Complex Organizations. Retrieved from <https://futureorg.org/wp-content/themes/futureorg/assets/Deiser-Digital-Transformation.pdf>
- Seiner, S. R ( 2011 ). If You Think You Can Do Without a Business Analyst ÉThink Again!. Retrieved from <https://tdan.com/if-you-think-you-can-do-without-a-business-analyst-think-again/15463>
- Kirchmer, Mathias ( 2017 ). High Performance Through Business Process Management. Retrieved from <https://www.springer.com/gp/book/9783319512587>
- ThembiliyaGodage, P ( 2015 ). User Acceptance Testing for a Business Analyst. Retrieved from <https://www.linkedin.com/pulse/user-acceptance-testing-business-analyst-thembiliyagodage/>
- Business Analyst Learnings ( 2014 ). The Role of Business Analysts in UAT Sessions. Retrieved from <https://businessanalystlearnings.com/blog/2014/6/25/the-role-of-business-analysts-in-uat-sessions>
- Dsvgroup ( 2019 ). Important Business Analyst Skills to Growth your Career. Retrieved from <https://www.designveloper.com/blog/business-analyst-skills/>
- Cockburn, A ( 2015 ). Nine Key Skills That Every Good Business Analyst Needs. Retrieved from <https://www.batimes.com/articles/nine-key-skills-that-every-good-business-analyst-needs.html>
- Deshpande, A ( 2018 ). Giving The Stakeholder What They Need Over What They Want. Retrieved from <https://www.batimes.com/articles/giving-the-stakeholder-what-they-need-over-what-they-want.html>
- Business Analyst Learnings ( 2013 ). Critical Thinking in Business Analysis: Why it Counts. Retrieved from <https://businessanalystlearnings.com/blog/2013/4/8/critical-thinking-the-business-analyst>
- IIBA ( 2020 ). Business Data Analytics. Retrieved from <https://www.iiba.org/standards-and-resources/business-data-analytics/>
- Cleary, J ( 2016 ). Career Focus: What Employers Want from a Business Analyst. Retrieved from <https://mbs.rutgers.edu/articles/career-focus-what-employers-want-business-analyst>
- BACentric ( 2019 ). Should Business Analyst Know Sql. Retrieved from <https://www.bacentric.com/should-business-analyst-know-sql/?amp>
- Market Research Media Ltd ( 2018 ). Database Market: Convergence of RDBMS and NoSQL/ NewSQL, Market Forecast. Retrieved from <https://marketanalysis.com/database-market/>

- Sansa Technology ( 2010 ). Why Business Analysts Need Skills In Sql And Relational Database Technology. Retrieved from <https://sansatechnology.wordpress.com/2010/06/01/why-business-analysts-need-skills-in-sql-and-relational-database-technology/>
- Gupta, R ( 2020 ). Key Business Analyst Skills Every Analyst Should Have. Retrieved from <https://thebusinessanalystjobdescription.com/key-business-analyst-skills/>
- World Health Organisation ( 2019 ). Global Spending on Health - World Health Organisation Retrieved from [https://www.who.int/health\\_financing/documents/health-expenditure-report-2019.pdf?ua=1](https://www.who.int/health_financing/documents/health-expenditure-report-2019.pdf?ua=1)
- Statista ( 2020 ). Health Care in the U.S. 2020. Retrieved from <https://www.statista.com/study/15826/industry-report--health-care/>
- Deloitte ( 2020 ). 2020 Global Health Care Outlook. Retrieved from <https://www2.deloitte.com/global/en/pages/life-sciences-and-healthcare/articles/global-health-care-sector-outlook.html>
- South University ( 2019 ). How Information Technology is Improving Healthcare. Retrieved from <https://www.southuniversity.edu/news-and-blogs/2019/08/how-information-technology-is-improving-healthcare>
- Sahni, R. ; Huckman, R. ; Chigurupati, A ; Cutler, D ( 2017 ). The IT Transformation Health Care Needs. Retrieved from <https://hbr.org/2017/11/the-it-transformation-health-care-needs>
- McKinsey, ( 2016 ). How Companies Are Using Big Data And Analytics. Retrieved from <https://www.mckinsey.com/business-functions/mckinsey-analytics/our-insights/how-companies-are-using-big-data-and-analytics>
- Rovner, J ( 2020 ). Rapid Changes To Health System Spurred By COVID Might Be Here To Stay. Retrieved from <https://khn.org/news/rapid-changes-to-health-system-spurred-by-covid-might-be-here-to-stay/>
- Shrank, W. H., Rogstad, T. L., & Parekh, N ( 2019 ). Waste in the US Health Care System Estimated Costs and Potential for Savings. Retrieved from <https://jamanetwork.com/journals/jama/article-abstract/2752664>
- Roth, J ( 2019 ) How Business Analysts are Helping Healthcare Organisations Use Big Data. Retrieved from <https://www.iiba.org/iiba-analyst-catalyst-blogs/how-business-analysts-are-helping-healthcare-organizations-use-big-data/>
- Martin, E ( 2018 ). Money Is Flooding Into These 10 Industries That Are Adding Jobs And Thriving. Retrieved from <https://www.cnn.com/2018/10/16/top-10-industries-that-are-hiring-thriving-and-making-money.html>