

Business Analysts' Education Needs and its Impact on their Employment Opportunities

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Abstract

Business analytics is a highly trending job role in modern world and demand is creating for quality business analysts day by day. Sri Lanka is developing country which is creating valuable job opportunities in the cooperate business environment. Graduates and undergraduates are seeking demanding job roles such as business analysts and they are willing to acquire the education needs which demanded for those job roles.

Index terms— business analyst. sri lanka, graduates and undergraduates

1 Business Analysts' Education Needs and its Impact on their Employment Opportunities

Introduction oday there is a rapid development in the world almost all of the areas including businesses field. So, the competition between the companies in the business world getting increased as the technological development. Not only keeping touch on the latest technological updates it is also important businesses to have good data analysis in order to predict future trends. So, business analytics in companies now have become very urgent field in developed countries including U.S.A, Australia and UK . But in developing countries like Sri Lanka it is now becoming a trending job. Requirement for business analytics and demand for business analysts will surely increase in Sri Lanka within next couple of years.

Sri Lankan universities now trying to provide business analytics related degrees to their undergraduates after considering this industry expectations. Students who are studying in business administration, information technology or related degree programs are looking forward to find jobs related to their specialization. But issue is that students who are studying from this field do not find specific career paths like students in medicine, law or teaching. The study areas are wide ranged and career opportunities are not defined in specific way. For professions such as business analyst, industry expectations may different from organization wise, society or some other related aspects. Graduates or undergraduates from different degree programs may have the chance to enter the field or there might be chance for those who are not graduated but highly experienced in cooperate.

2 II.

3 Literature a) Role of business analysts

The business analyst's role is very difficult to define but a business analyst can mention as a person who is working with an organization that helps to solve problems by using different skills as well as business analysis techniques. Using business analysts' wide knowledge and skills they need to cover three areas. Business, interpersonal and professional are those areas. It has also found that business analysts can make a huge impact on information system growth of organizations (Paul & Tan, 2015).

(Robert Half, 2020) Has stated that a business analyst should carry out certain works including identifying and implementing business solutions that help to achieve business goals, forecasting and budgeting financial performances using resources available that will help to decrease the chances of financial crisis in future. Furthermore there are some other responsibilities on the hand of business analysts. Financial modeling, reporting and defining business requirement, pricing, planning and monitoring various analysis and reporting business analyzations to stakeholders also in business analysts' job profile.

44 4 b) Education needs of business analyst

45 Educational needs a business analyst should have identified by a study and it has described about the skills
46 that business analyst should have to successful in their careers as well as to find relevant career related to their
47 studies. It says a business analyst should have skills like fundamental, analysis as well as technical skills. Where
48 the fundamental skills have divided in to problem solving, communication, management and research skills.
49 Technical skills like knowledge of IT skills and domain knowledge. Business analysis skills such as requirement
50 elicitation, documentation, decision making and analytical skills (Anon., 2019).

51 5 c) Problem solving skills

52 Problem solving skills helps to find out why the issue is happening and how to solve the problem. If a person
53 having good problem-solving skills, then he/she able to solve a problem quickly and effectively. Problem solving
54 skill is a soft skill and in the process of problem solving there are five steps. They are analysing causes, generating
55 alternative interventions for the problem, evaluation of best solution, implementation of the plan and finally assess
56 the effectiveness. If a person good at going through this process he/she is having good problem solving skills and
57 nowadays it has been proven it is the one of important skill that employers seek from candidates when hiring for
58 jobs .

59 6 d) Communication skills

60 According to (Hubble, 2018) business analysts are constantly communicating. Good communication of business
61 analysts will help to keep touch with stakeholders and according to him verbal, non-verbal communication as
62 well as writing skills also important for a business analyst. So according to this statements business analytical
63 students that who are going to work in the industry tomorrow should develop their communication skills when
64 they were in universities because according to literature given communication skills are one of most consequential
65 skills for them to find relevant business analysis job in future.

66 7 e) Analytical skills

67 Analytical skill is some person's ability of identifying and solving unstructured problems and giving judgments
68 based on unfocused facts. Analytical skills should also be developed throughout the students staying at university
69 and it is a foundation for other skills as well (Banderlipe, et al., 2006). (Alison Doyle, 2020) describe include
70 ability of detecting patterns, data interpretation, and brainstorming, theorizing and giving decisions based on
71 options available. Analytical skills can be divided in to several sections. They are communication, critical
72 thinking, creativity, and research and data analysis. If a person is excellent in above mentioned sections, he/she
73 has good analytical skills.

74 According to (Wilder & Ozgur, 2019) both business analytics and business intelligence both needs set of skills
75 and software and in the process of business analytics and business intelligence there should be gathering and
76 transformations of raw data in to actions that gives insights. According to him the responsibility of preparing
77 students for business environment by developing business analytics and business intelligence is in the hand of
78 business schools. There are three main business analytics jobs and they are data scientist, business analyst and
79 business users. If we consider about business analyst specially, a business analyst should have the ability of data
80 management and knowledge of statistics. However, a business analyst should not need to have a high knowledge
81 in mathematics but he/she should have considerable computer knowledge as well as mathematical and statistical
82 knowledge that will help to analyze data and help to make decisions.

83 8 f) Research skills

84 According to (Anon., 2020) research skills are the ability of searching, collecting, analysing, evaluating and
85 interpreting information that are available for studying a subject. Research skills can be gained by using tools
86 such as internet, interviews, books, surveys, books, studies, experiment and articles. Research skills are a "must"
87 because nowadays when recruiting employees for a job because many companies related to business field are
88 expecting their workers to have good research ability because it will help companies to remain valuable workers.

89 9 g) Decision making skills

90 Decision making is about choosing and identifying the bet among alternative choices available to give a solution
91 to a problem. The decision is based on the value and believes of the decision make uses and the decision of the
92 decision makers foo same problem may deferent from each other for a same problem. To make decisions more
93 effectively the relevant information and should be gathered first. Then by developing different alternatives and
94 identifying pros and cons of each alternative best alternative can be selected and implementation can be done.
95 Delaying decision making maybe sometimes good as it will help to gather more information available that help
96 to make the decision more successfully. (Parcon , 2006).

97 **10 h) Requirement elicitation**

98 According to (Modern Analyst.com, n.d.) the requirement elicitation is about quickly gathering information for a
99 project. But this process cannot be done very quickly. And if any mistake made in elicitation process can course
100 a project or work failure. The requirement elicitation process includes identifying business needs, assumptions
101 and risks associated with any project.

102 **11 i) Documentation skills**

103 The most important of good documentation is inviting as possible. Documentation is comprehensive. It means
104 all aspect of the project are documented. It helps to users find the content they need quickly. Documentation
105 include use clear heading, bullet list and links. Large project document can clear navigation, table of content.
106 Good documentation should give the idea they wanted to tell very clearly, precisely and concisely and also needed
107 to use appropriate tools that can be presented worldly as well as visually. (Anon., 2018).

108 **12 j) IT skills**

109 According to (Heinrich, 2017) people who are working in business domain needs IT skills such as Microsoft office,
110 database knowledge, SQL, CRM software, programming languages and cloud computing tools. According to
111 him due to the growth of technology the competition in business domain has been increasing day by day and
112 the business students need to develop the knowledge of IT because when recruiting for jobs they need to have
113 expected knowledge that companies are looking for.

114 **13 k) Domain knowledge**

115 this website describes about various kinds of options to gaining more and more domain knowledge. Exploring
116 more and more on discuss with different people working on the similar domain, reading blogs and articles, gain
117 more ideas through applicable websites are the main options in there. However, there are some different ways
118 to develop domain knowledge in business analysis. They are Do research in the particular domain and gain
119 more knowledge, Interview key stakeholders, Gain more experience. There are important skills needed in the
120 business analysis domain Communication skills, Business knowledge and critical thinking, Problem solving skills,
121 Technical skills, Methodology skills (Anon., 2017).

122 **14 l) Management skills**

123 We can simply define management as the administration and coordination of tasks to obtain a goal. When we talk
124 about administration it includes setting the organization's strategy and coordinates the efforts of the staff. And
125 there are 5 main functions to identify they are planning, organizing, staffing, directing and controlling. When
126 we talk about planning function there are several activities to do they are; Analyzing the current situation,
127 Anticipating the future, Determining the organizational objective, Choosing strategies (indeed career guide,
128 2020).

129 **15 m) Employment Opportunities of business analyst**

130 (Anon., n.d.) Describes business analysts as a person who gather and analyse big data to take a good use
131 of them in decision making processes. There are five demanding business analysts' jobs nowadays and they
132 are, data analyst scientist, IT business analyst, business analyst manager, system analyst and computer science
133 data analysts. According to (Carpenter, 2020) business analyst mostly works in industries such as health care,
134 development area in businesses, manufacturing, information system management and supply chain management
135 fields. There are some organizations hiring business analysts for planning assistance in execution and planning
136 of projects as well. He also states that many business analysts start working in companies when they are
137 undergraduates and he also states that if this entry level business analyst have enough experiences and good
138 performances, they can easily move in to junior analyst and senior analyst positions. According to observations
139 it has also approved that companies expect entry level analyst should have at least a bachelor degree in business
140 analytics and for senior business analyst there should be at least master's degree.

141 **16 III. Problem Statement and Objectives a) General Objective**

142 To assess how the Business Analysts education needs impact on their employment opportunities.

143 **17 b) Sub Objectives**

144 **18 ? To determine education background of a Business**

145 Analyst. ? To assess Business analyst's education needs and employment opportunity of graduates and
146 undergraduates. ? To determine the impact of working experience of graduates and undergraduates on their
147 employment opportunity for BA job roles. ? To assess Industry specialist's perception for Business analyst's
148 education needs and employment opportunities.

19 c) Statement of the Problem

There are some researches that have been conducted all over the world about employment opportunities for graduates in different fields and some had researched on roles and practices of Business Analysts. But few had given their attention on Business analytics field and job opportunities for the field. Business analyst has become a key role in recent business opportunities. Therefore, organizations are seeking highly qualified and skilful people for their BA roles. However, to be ideal business analyst he or she should possess many skills & experiences.

When it comes to Sri Lankan context Business Analytics practices only in major organizations and their willing to hire highly qualified persons as in global. There are state universities and private institutes which produce Business Analytics graduates every year. Past researches had found that in Sri Lankan context there is a gap between graduate's qualifications and industry expectations when recruiting (Weligamage & Siengthai, 2003). A recent study done by (Ariyawansa, 2013) state that most of the graduates in Sri Lanka wait for a long period to find a suitable job for their background of study and the reason for this crisis is mainly the mismatch between graduates degree and industry demands for job roles. There are many graduates and undergraduates who are willing to enter business analytics field. But the issue is industry is not welcoming most of them for the roles. There is a need of finding what the skills & experiences graduates are lacking to enter for BA roles and also, what the industry is expecting from applicants for their employment opportunities IV.

20 Results and Discussion

In the quantitative data analysis data set were analysed with 95% confidence level and to test whether each variable significantly impacting or not significance of the coefficient should be less than 0.05. Logistical regression model results shown as follow.

Out of ten variables tested only three made significant impact on the employment opportunity. Problem solving ability significance of the coefficient was 0.002<0.05, domain knowledge significance of the coefficient was 0.044<0.05 and analytical skill significance of coefficient is 0.02<0.05 are the variables which make significant impact. These variables make a positive impact which shown in ? column if the education needs are high employment opportunity as business analysts also will be high.

When data set tested with working experience it gives results as management skill, domain knowledge and decision-making ability relationships between employment opportunities are positively impacted by work experience. As shown in the table 2 other variables were not significantly impacted by work experience.

In the narrative analysis done on industry specialists' responses it had found that problem solving ability, knowledge of IT, communication, domain knowledge, management skills and documentation skills are important for to be an analyst. ?ut For the Analytical skill it has not mentioned in terms it is important but one of the respondents (specialist A) have stated that statical knowledge and working with analytical tools is required for an analyst.

"Also, when it comes to education needs, I look at in to different certification related to business analyst. There are different tools and techniques that are important for business analyst to do their work. I also check whether they have got basic statistical knowledge."

Excepting significantly impacted factors according to industry specialist it key factor which need to have IT skill. But some it won't be need much in some analytical positions. It depends on the domain area.

21 According to specialist D:

"If the candidate is applying to position in that system we will look for an IT degree but there are some system they don't need lot of technical knowledge, as an example the system which I'm working we don't need lot of IT knowledge, so my business degree specializing in business analytics is enough."

Other factors also which may not show impact on regression model but according industry specialists management skills, documentation skills, communication also important for an analyst. Also, most of the respondent's state that there are number of opportunities for business analysts and as shown in the results it depends mostly on domain area of, they are going to work. According specialist D, "It also depends on what type of job they have to do. Some system they don't need lot of information technology, so system like that there more chance for a business analyst to be working there, we don't have IT analysts from what I know all are business analysts, with in that we have people who are very technical, we don't call them IT analyst all of them call Business Analyst only. there are important education needs to be covert by business analyst to find a job. IT skill, communication, management skill, problem solving ability, domain knowledge and analytical skill are common factors which are important for an analyst. Management skill, domain knowledge and decision-making skill can be affected based on person work experience. However out of the common variables problem solving ability, domain knowledge and analytical skill have found as significantly impacted factors when graduates and undergraduates find analytics job roles.

Finally, we can suggest that those who willing to be business analysts need to find degree programmes which created with wide areas of domains and modules which can cover about analytical techniques and tools. Also, universities can develop their programmes with giving deep knowledge domain areas such as HR analytics, marketing analytics or social media analytics, etc.

208 Further, this research has given considerable and important outcomes about educational needs of business
209 analysts as well as employment opportunities of them. Future researchers can conduct their researches using
210 the theories and results generated from this research. Even so it is better to conduct future researches related
211 to this topic for different levels of business analysts. Because different level of business analysts need different
212 education needs and having different employment opportunities it had been quite difficult and complicated for
213 the researchers of this research to define the sample of the population.

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