

Exploring Strategic Factors Driving Business Analytics Maturity for Indian Enterprises: *A Qualitative Research Study*

Hari Saravanabhavan, Dr. Sadia Riaz, Dr. Suchismita Das

SP Jain School of Global Management

Email id: hari.ds19dba005@spjain.org, sadia.riaz@spjain.org, suchismita.das@spjain.org

ABSTRACT

In the present day, business analytics (BA) is known to play a vital role within all processes through which organizations are known to make vital business decisions. The power of BA is such that it presents organizations with data that enable them to reach strategic, operational and tactical solutions. BA offers tremendous scope to business organizations in terms of cost-reductions, reduction in time required to execute and complete analytical tasks. However, it is imperative for organizations that are keen to invest in adopting analytical technologies to overcome certain challenges, enabling them to comprehend the benefits from adopting BA. While studies that are conducted on BA in the past have taken developed nations into account, there is a paucity of studies that investigate BA in Indian organizations.

This research adopted a qualitative method where data collection was facilitated with semi-structured interviews from Indian analytics decision makers & subject matter experts and secondary sources. Semi-structured interviews were carried out with 15 respondents, while secondary data was collected from reputed sources to add a theoretical perspective to the research. The data collected was segregated into themes to facilitate analysis. The findings from the semi-structured interviews revealed diverse perspectives of BA in the Indian context where several respondents believed that BA was in a nascent stage while others believed that certain aspects of BA were well-developed in India. Secondary analysis revealed that BA maturity success required a BA maturity model.

Keywords: *Business analytics, Business intelligence, Maturity models, Organizational performance.*

BACKGROUND

Organizations in the current day are known to generate huge volumes of data. In order to gain an understanding of any technical data thus gathered, and conserved within many binary mediums such as databases and data warehouses, and to transform it into meaningful perceptions, a new domain termed as business analytics has emerged in recent times (Rao et al., 2013). As of now, business analytics (BA) has developed to be a significant aspect within any and every vital process of arriving at business decisions. It also has the propensity to mutate businesses as it authorizes administrators with data while strengthening it to arrive at strategic, operational and tactical solutions. BA is perceived as a techno-driven innovation for enhancing decision-making and organizational performance with data analysis. BA has been defined by Davenport (2006), as a competency where data is extensively utilized, involves quantitative and statistical analysis, drives predictive, explanatory, and fact-based decision-making and actions. BA is not a new concept for decision-making, it has been in existence for some time now however, there has been an evolution in the technologies and tools for BA (Delen & Ram, 2018).

BA is largely employed by organizations within domains where there is high prevalence of reliance on quantitative data, such as operations, finance and marketing. Issues that require audit and predictions are tackled within functional areas. It has been stated by Ashrafi et al., (2019), that enhancing capabilities in BA would improve execution in functions and conventional areas, while providing an expansion of product and service offerings. Organizations have also been considering analytical tactics to fine tune their business strategies and leverage technology, especially analytics for arriving at robust conclusions. Akin to certain latest technologies, BA has the potential to lower costs, substantially reduce the time required to finish a computational task (Popovič et al., 2018). Organizations that are making investments in analytical technologies need to overcome some challenges which would allow them to entirely understand the benefits that can be gained through BA. For example, it is imperative that organizations realize to leverage the best out of BA, and the data they continuously accumulate, they need to undertake efforts towards discovering the right focus, employ the right people, structure appropriate cultures and upgrade and install the right technologies (Parks & Thambusamy, 2017). Furthermore, the challenges of tackling big data, identifying analytical talent, technology consolidation and challenging organizational

cultures are pitfalls that restrict the use of BA within organizations. Ultimately, it is the data-driven mindset of an organization that would critically reflect the worth of their data (Landelius, 2021).

Several research studies conducted in the past investigated the adoption of BA as a single-stage adoption activity within organizations (Nam et al., 2019). On the contrary, adoption of BA is a multi-stage adoption procedure involving the intention to adopt, utilize BA and assimilate BA within value chain activities (Puklavec et al., 2018). There has been a substantial growth in BA over the past few years. Based on research done by IDC (2022), the size of global analytics in 2022 was said to be around \$274.3 billion with a compound annual growth rate of 13.2 per cent between the periods of 2017-2022. Based on a report by Analytics Peepal (2018), the overall size of market for BA in India was estimated at \$2.03 billion during 2018 and it is anticipated to touch around \$16 billion by 2025. In another report by Christopher and Bureau (2017), it has been indicated that India is one of the three top nations that has adopted analytics, in tandem with China and the USA. Though there are several studies as is evident here, most of these studies have been conducted by authors around the globe from the context of developed regions around the world. However, there is an acute lack of studies that investigate the use of business analytics from the Indian context (Verma & Bhattacharyya, 2017). Based on these factors, this study aims to develop an industry led framework to drive business analytics maturity in Indian enterprises.

LITERATURE REVIEW

It has been stated by Mirarab et al., (2019), that effectively managing BA would result in value creation in terms of decision-making, organizational performance and operational effectiveness. Creation of value can be elucidated as input processing which results in a certain output. Effectiveness in decision-making refers to the level to which a decision is successful in realizing the objectives as set forth by an organization (Wang, 2019). Operational effectiveness would refer to practices within organizations for effectively using their input, like lowering error rate within operations or augmenting operational speed. Organizational success can be measured based on its products and services, market conditions and competitive edge (Panchal & Krishnamoorthy, 2019). A study conducted by LaValle et al., (2010), indicated that leading organizations have twice the scope to utilize analytics for arriving at decisions. Another study that was carried out within the manufacturing industry revealed that adoption of technology was all the more vital with increasing competition, developing new products, and developments in the process of manufacturing (Dangayach et al., 2006). A study that was carried out by Marshall et al., (2015), included 341 users of BA for innovation and found that organizations using analytics had 36% higher scope to outperform competing organization in terms of revenue growth and operational efficiency.

The relationship between competitiveness, technology and strategy is quite a dynamic and intricate phenomenon (Momaya & Lalwani, 2017). From the perspective of an emerging nation, the advantages of technology frequently tends to make marginal or short-term increment in organizational productivity, (Momaya, 2019; Momaya & Lalwani, 2017) have deliberated the management of technology (MoT) framework for enhancing competitiveness of an organization. MoT has been defined as the science, engineering and disciplines of management to plan, build and execute technological capabilities to shape and achieve functional and strategic objectives of an organization. MoT could be instrumental in enabling organizations to realize greater efficiency levels, productivity and overall organizational effectiveness. An MoT that is effective would be instrumental in enabling organizations to gain competence at a global level and face robust competition, within challenging market environments (Momaya, 2019).

Through a case study carried out on an automobile organization in India, (Momaya, 2019) elucidated various components of MoT for effectively associating innovation and technology management. The components would refer to technological capabilities needed to carry out particular activities, procedures and routines for technology management. (Momaya, 2019) further states that the components of MoT would include choice of technology, adoption, transfer, upgradation, new product development (NPD), research and development (R&D), commercialization of international technology, and incorporation for global competitiveness. According to Salian et al., (2018), a manufacturing organization within India effectively utilized the MoT by concentrating on upgrading their products with technology, establishing a structured R&D team, and creating patents for business scaling. An organization would be able to successfully manage technology by initially absorbing technology, and then facilitating the development of technology and its execution for long-term technological competitiveness. Therefore, it has been affirmed that BA adoption is a necessary component within strategic BA management to facilitate the creation of value within organizations. (Saravanabhavan H et al., 2020)

With a view to remain competitive within the market, firms are constantly required to evaluate and build their capabilities. From a conceptual point of view, maturity models are tools that help in assessment (Pöppelbuß & Röglinger, 2011). There would be variations in the overall quality of an organization as certain organizations would be more mature as compared to others in terms of assessing their capabilities. Simply said, maturity models intend to evaluate organizational capabilities while locating organizations within a particular chronological maturity level, in most of the cases the levels would range from 1-5 where 5 would signify the highest level of maturity (Ariyaratna & Peter, 2019). In addition, maturity models could offer suitable actions to achieve a greater level of maturity, thereby augmenting the quality of an organization's capabilities. When organizations are in a position to identify their existing maturity levels, they would be in a position to chart their own way towards achieving their intended level of maturity.

In terms of BA, in a research carried out by Ransbotham et al., (2015), it has been stated that when business manage highly intricate analytics, they are in a position to realize greater level of competitive advantages. According to several studies (Davenport, 2007; Chen & Nath, 2018), the benefits of BA maturity have been highlighted as a greater maturity level tends to have a positive correlation with positive BA outcomes for an organization. It has also been indicated that maturity in analytics has a positive correlation with enhanced managerial decision-making (Popović et al., 2012). Arriving at decisions on the basis of data-based inputs as compared to intuition would be instrumental in producing advantages like lowering costs, and time to market, developing new products and services and improving their quality. In addition, (Ransbotham et al., 2015) deliberates about the manner in which a greater level of analytics maturity would indicate a capability for managing prescriptive and predictive analytics which would be beneficial to an organization while predicting the future and arriving at better decisions. It has also been found by Westerman et al., (2012), that organizations that realize a greater level of digital maturity would have a higher level of revenue generation, higher level of market valuation, and almost 25% greater profitability as compared to organizations having low maturity levels.

While maturity models have turned out to be an accepted technique for assessing the level of maturity for diverse organizations, they have also been prone to criticisms. One of the aspects that have been highly criticized is the absence of any documentation during the process of development of new models of maturity. Researchers take the liberty to conceptualize their individual models of maturity, without making any documentation of appropriate explanations or reasoning for the decisions they arrive at during the process of development (Elangovan & Rajendran, 2015). This raises questions about validity of the existing models. For gaining acceptance within research, it is vital for any new models of maturity to be sound from a theoretical perspective, and tested using empirical research at the time of its development. In addition, researchers are also required to document the process of development (Król & Zdonek, 2020). Yet another issue pertaining to maturity models refers to the process of assessment itself. When organizations evaluate themselves, on the basis of individual perceptions of employees, there exist risks from imprecise outcomes. Nonetheless, it is possible to overcome such risks by having several employees conduct the evaluation process and providing them with explicit instructions pertaining to evaluating varied maturity levels. However, it is imperative to review few of the existing analytics maturity models.

The five stages of analytical maturity model was developed by Thomas Davenport (2017), who are leading researchers in the domain of analytics. Research that they have carried out has been beneficial to several organizations in terms of bringing improvements within their analytics, while leveraging it for gaining a competitive edge. The five stages model lays much emphasis on organizational factors for maturity, as it showcases the significance of management support and analytical competencies within an organization. (Thomas Davenport, 2017) had developed their first model in 2007 which comprised of five dimensions, but their updated model released in 2017 included new dimensions of analytical techniques and technology. This update was partially an outcome from the introduction of highly intricate technologies such as big data, which offers organizations with the scope to assess larger data sets with increasingly advanced technologies. Another model which was the business analytics capability maturity model was developed by Cosic et al., (2015). This model was instrumental in facilitating organizations to consider and assess their existing initiatives in BA. The foundations of their model are rooted in the resource-based view, built through an analysis of current information system capability maturity models. Further, models that were previously developed and presented were extensively criticized by Cosic et al., (2015), arguing that those previous models have been developed by vendors who had no experience in consulting. This brought in a certain level of difficulty in perceiving it as being unbiased. In addition, they also believed that past maturity models of BA were devoid of any theoretical base as it focused more on the aspect of data warehousing of BA. This is the primary

reason that (Cosic et al., 2015) claim their model to be sound from a theoretical point of view as it offers a holistic perspective of BA.

Chen and Nath (2018) conducted a study in China to examine the business analytics maturity of firms, while a systematic review was conducted by Ariyaratna and Peter (2019), in Sri Lanka which examined business analysis maturity models. The authors believed that current BA maturity models were developed from the context of developed nations and thus were in favour of building a BA maturity model that could be utilized within developing nations. Similarly, a research was carried out by Nilsson (2019), to investigate BA maturity models and develop a new BA maturity model for use within the e-commerce sector in Sweden. Though, several studies have been carried out to investigate BA maturity models, there are scant or no studies that examine BA maturity models that are being used in the Indian context. This research intends to bridge this gap.

METHODOLOGY

This research intends to investigate maturity of business analytics within Indian organizations. To facilitate this research, the researcher adopted a qualitative research method, where data was collected from live respondents through semi-structured interviews which was later analyzed and further, data was also collected from secondary sources to add a theoretical perspective to the research. The sample size chosen for the semi-structured interviews was 15 and based on the inputs received appropriate analysis was carried out using Wordrazier software. The respondents essentially comprised of analytics subject-matter experts, business leaders, head of analytics, Analytics partner, leader of supply chain analytics, global data and analytics consulting leader, analytics sales leader, General Manager, and global analytics partner.

RESULTS

Introduction

This study is related to business analytics maturity in Indian enterprises. The researcher has asked the questions in the form of semi-structured questionnaire to respondents to understand the state of maturity in Indian enterprises. The sample size was 15 and using this sample we did further analysis. The collected data were presented using Excel and analyzed using Wordazier and the results are presented below.

Designation

Initially respondents were asked to share about their designation and collected information was presented below.

Table1: Designation of the Respondents

Designation	Frequency
Analytics Head	1
Analytics Head - Indian MNC	1
Analytics Head Global MNC in India	1
Analytics Partner Head	1
Analytics Sales Leader	1
Analytics Subject Matter expert	1
Business Leader	2
General Manager - Global MNC	1
Global Analytics Partner	1
Global Data & Analytics Consulting Leader	1
Head - Analytics	1
Head - Analytics of India Business House	1
India Analytics Head	1
Supply Chain Analytics Leader	1
Total	15

Table 1 represents the frequency of the designation of the respondents. Majorly 2 respondents belonged to the Business Leadership function and all others were from the analytics leadership competency.

Perspective on Analytics maturity

After the enquiry of the respondent's designation, they were asked about the perspective on Analytics maturity of Firms in India. At the time of interview the participants have answered with the following statements:

Analytics maturity is in the nascent stage (**Resp 1**), it is low in India (**Resp 2**) and more work needs to be done for it to pick up in India. It should be more focused on automation and cost efficiency (**Resp 3**). It is prevalent in the ecommerce industry (**Resp 4**) and it is visible in few areas only (**Resp 5**) and also lagging in many Indian organizations (**Resp 6, 8 & 9**). It is now catching up (**Resp 7**) and even encouraging to see it on a growth path (**Resp 10, 11& 15**). It is not a one size fits all from a replication perspective (**Resp 12**) and needs to be addressing more real challenges (**Resp 13**) it is an emerging competency (**Resp 14**), seen lots of Progress but also need promising journey to stay.

Table 2: Perspective on Analytics Maturity

What is your perspective on analytics maturity of firms in India	Response
Lagging	3
Comparison	2
Prevalent	1
Invested	1
Experience	1
Enterprise	1
Emerging	1
Efficiency	1
Ecommerce	1
Customized	1
Capabilities	1

Table 2 represents the participant's view on Perspective on Analytics maturity. Majorly 3 responses belong to Lagging and 2 denoted Comparison and all other responses are with fewer counts.



Figure 1. Word Cloud for Perspective on Analytics maturity Source -

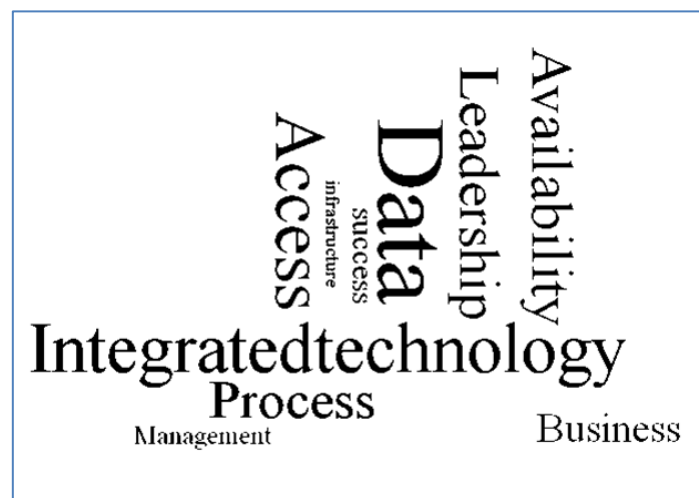
Factors driving Analytics Maturity

Process, Data and Technology drives Analytics maturity (**Resp 1, 2, 6,8,11 & 12**) and ROI is a clear factor (**Resp 3 & 14**) along with superior (right) way to manage data (**Resp 4**). Processing data is fueling analytics maturity. Management in a lot of organizations drive this (**Resp 5, 10 & 15**) and leaders are also focused on it. IT and systems is a critical component (**Resp 7**), Understanding the Indian customer, new data sources, better technology (**Resp 9**) these are all very important, Corporate Leadership plays a major role (**Resp 13**) without this analytics will be a Simple line function.

Table 3: Factors driving analytics maturity

What according to you are some of the factors driving analytics maturity In Indian organizations?	Response
Data	13
Integrated technology	8
Leadership	4
Access	4
Availability	3
Process	2
Global	2
Business	2
Success	1
Management	1
Infrastructure	1

Table 3 shows which factors are driving analytics maturity. Majority of responses for Data i.e 13 and 8 for integrated technology, then 4 responses for both Leadership and access then 3 responses for availability and all other responses are with fewer counts.

*Figure 2. Word Cloud for Factors driving analytics maturity. Source –***Factors driving Analytics maturity are specific (India vs. global markets)**

India is unique (**Resp 1, 8**) and has its own specific factors and also it is better than earlier (**Resp 2**). Deep customization is required (**Resp 3,5**) and business problems differ from others (**Resp 4,11,12 &15**) and needs to be more focused on operating environment (**Resp 6**). Indian markets learning from global markets (**Resp 7**). We need to be much discerning

(Resp 9) when compared to others, and Indian diaspora is different (Resp 10). India has a different organization structure (Resp 13) and it has a very strong cultural ecosystem (Resp 14).

Table 4: Factors driving Analytics maturity are specific (our vs. global markets)

Do you believe that the factors driving Analytics maturity in India are specific to our market (vs global markets) and why do you think so?	Response
Unique	3
Counterparts	3
Discerning	2
Widespread	1
Trajectory	1
Technology	1
Standardization	1
Replication	1
Quality	1
Predictive	1
Growth	1
Framework	1
Feasible	1
Experience	1
Competitive	1
Challenges	1

Table 4 represents which factors driving Analytics maturity in India are specific to (our vs. global markets). Majorly 3 responses for both Unique and Counterparts, 2 responses suggested that it is discerning and all other responses are with fewer counts.

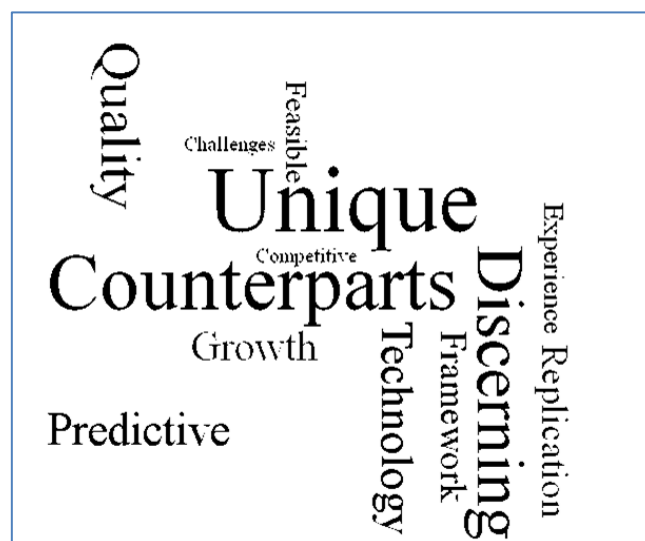


Figure 3: Word Cloud for Factors driving Analytics maturity is specific (our vs. global markets).

Leadership, IT, Human Capital and Organization

These factors are critical (Resp 1, 2, 3, 14) to drive analytics maturity. Analytics fails if leadership is not completely involved (Resp 4) and traditional factors; leadership and vision are most important (Resp 5, 11). Data and Technology plays a key role (Resp 6) and these factors are reflective on maturity (Resp 7) and leadership needs to own the agenda and

other factors will follow through towards maturity (**Resp 8, 9, 10**). Leadership, Technology and culture are key components (**Resp 12**) and leadership with right infrastructure (**Resp 13**) is very important. Data driven culture and organization change management are important (**Resp 15**) for analytics maturity.

Table 5: Leadership, IT, Human Capital and Organization

Leadership, IT, Human Capital and Organization construct are widely accepted 4 core factors driving analytics maturity as per global frame works, what are your thoughts on these factors?	Response
Culture	13
Critical	12
Technology	8
Influence	1
Growth	1
Elevation	1
Cornerstone	1
Broadly	1
Bedrock	1

Table 5 represents thoughts about 4 core factors driving analytics maturity as per global frame works. Majority of 13 and 12 response with Culture and Critical respectively, followed by 8 responses for Technology and all other responses are with fewer counts.

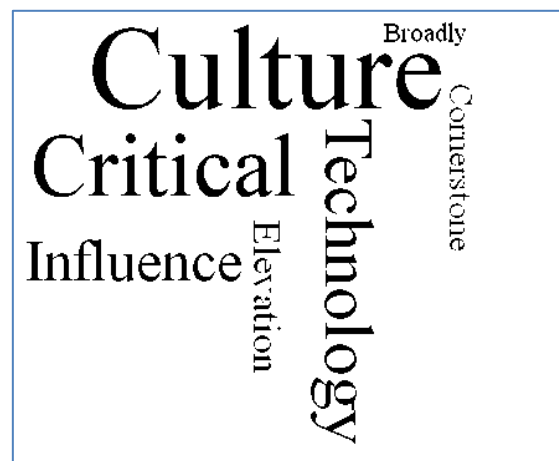


Figure 4. Word Cloud for Leadership, IT, Human Capital and Organization. Source -

Use cases, Partnerships and Advocacy are additional factors

Overall business use case is important (**Resp 1**) and Partnership need to be fully owned by the organization and Analytics advocacy is must to build maturity. Use case is important and Partnership brings an outside in view (**Resp 2**). Partnership is critical to scale up maturity (**Resp 3, 9, 11**). Use cases for analytics by leaderships and Partnerships are key (**Resp 4**) to drive analytics maturity. Right use case is a critical factor (**Resp 5, 7, 8**) and Partner eco system is a clear factor. It needs more attention due to ownership (**Resp 6**). Evangelization is an important vector for the organization (**Resp 10, 12, 14**) but it needs to be coupled with internal education. Defining a business problem accurately is an important milestone (**Resp 13**) in maturity. Data partnerships are a good example for analytics maturity (**Resp 15**) and use cases are very important to drive analytics maturity.

Table 6: Use cases, Partnerships and Advocacy are additional factors

Beyond the 4 core factors, new age studies show that Use cases, Partnerships and Advocacy are additional factors impacting analytics maturity, your thoughts on the same	Response
Critical	11
Important	9
Territorial	3
Technology	3
Successful	2
Prioritization	1
Implementation	1
Expertise	1
Demonstrating	1

Table 6 shows the respondents thoughts on additional factors impacting analytics maturity. Majority of 11 and 9 responses suggested Critical and important, further 3 responses proposed for both Territorial and Technology, and all other responses are with fewer counts.



Figure 5. Word Cloud for Use cases, Partnerships and Advocacy are additional factors. Source –

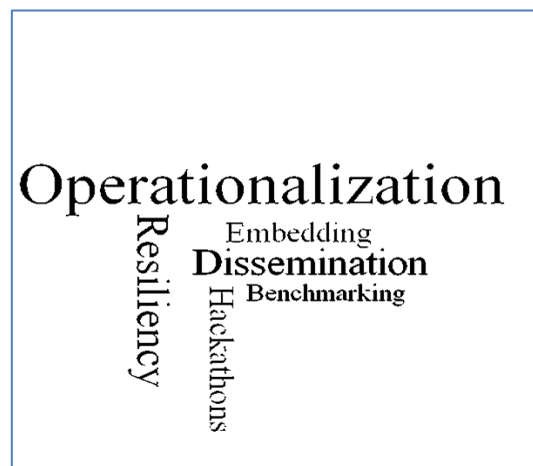
Any other factors that impact analytics maturity:

Analytics translator and Domain skills are important (**Resp 1, 4**) to ensure good understanding of outcomes, values of analytics needs to be measured multi dimensionally (**Resp 2**). Industry understanding and focus important (**Resp 3**). It needs to have a well-defined outcomes/KPI's (**Resp 5, 12, 13**). Embedding business stakeholders with analytics is important (**Resp 6**). Pilots and Proof of Concepts are critical factors (**Resp 7**) and important for analytics maturity. Operationalization of analytics is important (**Resp 8**) to drive maturity and it requires an independent structure (**Resp 9**). Operationalization of analytics initiative is big for maturity (**Resp 10, 13**). Value realization needs to happen (**Resp 11**) and India is “seeing in believing” market (**Resp 14**) so building proof for maturity is important. Data literacy or translation is a key (**Resp 15**) to drive maturity.

Table 7: Other factors that impact analytics maturity:

Beyond the core factors and additional 3 factors, are there any other factors that impact analytics maturity and why do you believe so?	Response
Operationalization	5
Realization	4
Resiliency	2
Dissemination	2
Innovation	1
Hackathons	1
Embedding	1
Credibility	1
Benchmarking	1

Table 7 shows the thoughts of respondents about any other factors which impact analytics maturity. Majority of 5 responses with Operationalization and 4 responses for Realization, 2 responses for both resiliency and dissemination respectively and these are the other major factors and all other responses are with fewer counts.

**Figure 6.** Word Cloud for other factors that impact analytics maturity. Source -

DISCUSSION

The findings from the data collected on ‘perspective of BA maturity’, it was found that two of the respondents believed that there is a lag in this area “Analytics maturity is in the nascent stage (Resp 1), it is low in India (Resp 2)”, but there were other respondents who felt that BA maturity models existed in several areas within the e-commerce sector alone “It is prevalent in the ecommerce industry (Resp 4)”. In contrast, four of the respondents believed that it is being extensively used and there has been an increase in use of BA maturity in India. With regards to factors driving analytics maturity, Resp 1, 2, 6, 8, 11 and 12 opined that analytics maturity was driven by process, data and technology, while two of the respondents stated that ROI was a key factor. Resp 13 stated that corporate leadership was instrumental in driving BA maturity. Further, examination of specific factors that drove BA maturity revealed that few of the respondents believed that deep customization could be a specific factor while there were others (Resp 4, 11, 12 & 15) who felt that business problems varied and it needs to focus on operating environment. (Resp 1, 2, 5 & 14) stated that leadership, IT, human capital and organization were vital to drive BA maturity. While there were other respondents who believed that leadership and vision were most important. Data and Technology plays a key role (Resp 6) and these factors are reflective on maturity (Resp 7)

and leadership needs to own the agenda and other factors will follow through towards maturity (Resp 8, 9, 10). Whereas, there were other respondents who felt that culture played a vital role along with leadership in driving BA maturity. Further a majority of the respondents (Resp 3, 9, 11, 5, 7 & 8) felt right use case and partnership were critical but others (Resp 10, 12, 14) cited evangelization as an important vector for the organization. (Resp 5, 12, 13) state that well-defined outcomes/KPIs also impact analytics maturity. While it has been stated by some of the respondents (Resp 8, 10, 13) that a huge initiative in analytics maturity would be operationalization of analytics. Also there were other respondents who felt that value realization, building proof for maturity or data literacy or translation was also important for driving maturity. The findings from the secondary data analysis revealed that success in business analytics can be ensured through the development of a BA maturity model which comprised of information content quality, information access quality, analytical decision-making culture and utilizing the information for the process of decision-making (Parks & Thambusamy, 2017). At the same time, determinants of success in BA has been segregated into three categories and these included; organizational success factors, process related success factors, and technology related success factors. Organizational success factors comprised of determinants like clear organizational vision and a well-established business case (Min et al., 2021). Factors pertaining to process comprised of determinants like a balanced team composition, well-established methodologies of project management, and user oriented change management processes (Min et al., 2021). Technology related factors referred to determinants like flexible and scalable architecture, sustainable data integrity and data quality (Min et al., 2021).

CONCLUSION

The purpose of this study was to investigate the use of business analytics and business analytics maturity models in India. From the findings of the research it is clear that there is not much done in the research domain that focuses on use of BA in India or the BA maturity models that are currently in existence in India. While there are scant few organizations that are using BA maturity models, these are models that are primarily developed for developed nations. However, there is the question of the suitability of such models in an Indian context, which warrants the need to develop a BA maturity model that is customized to an Indian context. Further, the study also investigated factors that drove BA maturity within Indian organizations. Several unique factors relevant to the Indian market were identified and the factors thus identified could be emphasized upon to disseminate the use of BA within Indian organizations.

CONTRIBUTION, CONFLICT OF INTEREST & FUNDING DETAILS

The idea to conduct this research was entirely devised by the researcher after conducting a thorough review of existing literature which revealed a scarcity of research on BA from the context of Indian organizations. An extensive literature review was carried out by the researcher which is documented above. Further, the semi-structured interview was carried out by the researcher by first identifying target respondents and obtaining their due consent. Later, the researcher analyzed the responses from the respondents with the help of software. Findings from secondary sources were also analyzed and interpreted. This research has been solely carried out by the researcher hence there is no conflict of interest or any funding for this research study.

LIMITATIONS OF THE STUDY

One of the key limitations of this research is that it adopts a qualitative method to conduct the research. Adopting a quantitative research method would be important as the researcher would have been able to quantify the findings with a statistical analysis. Furthermore, another limitation here is that it looks at Indian organizations in general. It would be worthwhile to apply the methodology to specific industries and analyze the outcomes.

REFERENCES

1. Analytics Peepal 2018. *Analytics Report*.
2. Ariyaratna, K. & Peter, S. 2019. Business analytics maturity models: A systematic review of literature. *Proceedings of the International Conference on Industrial Engineering and Operations Management*. (2019)MAR., pp. 1762–1767.

3. Ashrafi, A., Zare Ravasan, A., Trkman, P. & Afshari, S. 2019. The role of business analytics capabilities in bolstering firms' agility and performance. *International Journal of Information Management*. (47). pp. 1–15.
4. Chen, L. & Nath, R. 2018. Business analytics maturity of firms: an examination of the relationships between managerial perception of IT, business analytics maturity and success. *Information Systems Management*. (35)1., pp. 62–77.
5. Christopher, N. & Bureau, E. 2017. *EY says Indian firms are more analytics savvy*.
6. Cosic, R., Shanks, G. & Maynard, S.B. 2015. A business analytics capability framework. *Australasian Journal of Information Systems*. (19).
7. Dangayach, G.S., Pathak, S.C. & Sharma, A.D. 2006. *Advanced manufacturing technology: a way of improving technological competitiveness*.
8. Davenport 2007. *Competing on Analytics: The New Science of Winning*.
9. Davenport, T.H. 2006. *Competing on Analytics*.
10. Delen, D. & Ram, S. 2018. Research challenges and opportunities in business analytics. *Journal of Business Analytics*. (1)1., pp. 2–12.
11. Elangovan, N. & Rajendran, R. 2015. Conceptual model: A framework for institutionalizing the vigor in business research. *Indian Business Management*. 4., pp. 1–32.
12. IDC 2022. *Changing the way the world thinks about the impact of technology on business and society*. 2022.
13. Król, K. & Zdonek, D. 2020. Analytics Maturity Models: An Overview. *Information*. (11)3., pp. 142.
14. Landelius, C. 2021. *Degree project in the field of technology How to improve data quality in a decentralized*.
15. LaValle, S., Lesser, E., Shockley, R., Hopkins, M.S. & Kruschwitz, N. 2010. *Big Data, Analytics and the Path From Insights to Value*.
16. Marshall, A., Mueck, S. & Shockley, R. 2015. How leading organizations use big data and analytics to innovate. *Strategy & Leadership*. (43)5., pp. 32–39.
17. Min, H., Joo, H.-Y. & Choi, S.-B. 2021. Success Factors Affecting the Intention to Use Business Analytics: An Empirical Study. *Journal of Business Analytics*. (4)2., pp. 77–90.
18. Mirarab, A., Mirtaheri, S.L. & Asghari, S.A. 2019. Value creation with big data analytics for enterprises: a survey. *TELKOMNIKA (Telecommunication Computing Electronics and Control)*. (17)6., pp. 2790.
19. Momaya, K.S. 2019. The Past and the Future of Competitiveness Research: A Review in an Emerging Context of Innovation and EMNEs. *International Journal of Global Business and Competitiveness*. (14)1., pp. 1–10.
20. Momaya, K.S. & Lalwani, L. 2017. Systems of technological innovation: a review of research activities taking the case of nanotechnology and India. *Technology Analysis & Strategic Management*. (29)6., pp. 626–641.
21. Nam, D., Lee, J. & Lee, H. 2019. Business analytics adoption process: An innovation diffusion perspective. *International Journal of Information Management*. (49). pp. 411–423.
22. Nilsson, V. 2019. *Business Analytics Maturity Model - an adaptation to the ecommerce industry*
23. Panchal, D. & Krishnamoorthy, B. 2019. Developing an Instrument for Business Model Dimensions: Exploring Linkages with Firm Competitiveness. *International Journal of Global Business and Competitiveness*. (14)1., pp. 24–41.
24. Parks, R.F. & Thambusamy, R. 2017. Understanding Business Analytics Success and Impact: A Qualitative Study. *Information Systems Education Journal (ISEDJ)*. (15)6., pp. 15.
25. Popovič, A., Hackney, R., Coelho, P.S. & Jaklič, J. 2012. Towards business intelligence systems success: Effects of maturity and culture on analytical decision making. *Decision Support Systems*. (54)1., pp. 729–739.
26. Popovič, A., Hackney, R., Tassabehji, R. & Castelli, M. 2018. The impact of big data analytics on firms' high value business performance. *Information Systems Frontiers*. (20)2., pp. 209–222.
27. Pöppelbuß, J. & Röglinger, M. 2011. What makes a useful maturity model? A framework of general design principles for maturity models and its demonstration in business process management. *19th European Conference on Information Systems, ECIS 2011*. August 2014.,
28. Puklavec, B., Oliveira, T. & Popovič, A. 2018. Understanding the determinants of business intelligence system adoption stages an empirical study of SMEs. *Industrial Management and Data Systems*. (118)1., pp. 236–261.
29. Ransbotham, S., Kiron, D. & Prentice, P.K. 2015. *Minding the Analytics Gap*.

30. Rao, P.H., Ray, S. & Kumar, P. 2013. *Business Analytics: A Perspective*.
31. Saravanabhavan, H., Raman, S., & Maddulety, K. (2020, December). Value Creation from the Impact of Business Analytics. In *International Working Conference on Transfer and Diffusion of IT* (pp. 115-125). Springer, Cham.
32. Salian, S., Bali, A., Yugandhar, V. & Momaya, K.S. 2018. *Analyzing the Role of Management of Technology in the Growth of Technology Ventures*.
33. Thomas Davenport 2017. *Competing on Analytics: Updated, with a New Introduction: The New Science of Winning*. 2017.
34. Verma, S. & Bhattacharyya, S.S. 2017. Perceived strategic value-based adoption of Big Data Analytics in emerging economy. *Journal of Enterprise Information Management*. (30)3,. pp. 354–382.
35. Wang, Y. 2019. Wang Y , Byrd TA . *Business Analytics-Enabled Decision Making Effectiveness through Knowledge Absorptive Capacity in Health Care . Business Analytics-Enabled Decision Making Effectiveness through Knowledge Absorptive Capacity in Health Care*. (21)April,. pp. 517–539.
36. Westerman, G., Tannou, M., Bonnet, D., Ferraris, P. & McAfee, A. 2012. The Digital Advantage: How Digital Leaders Outperform their Peers in Every Industry. *MIT Sloan Management Review*. pp. 1–24.