

Work Week Assignment [Mojaki Y, 35326859].CMPG 223

- **Name of business:** Vodacom Group Limited

- **Address, telephone and e-mail:** Vodacom Corporate Park
 082 Vodacom Boulevard
 Vodavalley, Midrand 1685
 South Africa
 +27 11 653 5000
 corporate@vodacom.co.za

- **Main activities and functions:** Vodacom provides mobile telecommunication to South Africans at large. Its primary activities include data and voice transmission, messaging and mobile payments, telecommunication equipment and accessories sales etc.

- **Background and organisation structure:** well its brief background is that it was founded in 1993 and it is partly owned by Vodafone which holds a 65.1% share of the company, it is a very popular company around the African continent with operations in countries like, Lesotho, Kenya, Tanzania and South Africa just to name a few, through its subsidiary Safaricom, it serves roughly around 200 million customer through its enterprises.

The structure of the company is divided into different divisions to effectively offer its service, the key components include, Board of directors, Executive Committee, Business units such as, financial services and regional units in different countries.

- **System development methodology.**
 It is a structured framework that is used for planning, controlling, and implementing the development of information systems, it includes principles, practices that guide you throughout a projects lifecycle. E.g. Waterfall Model and Agile Methodology.
 Wynekoop, J. L., & Russo, N. L. (1993). System Development methodologies: unanswered questions and the research-practice gap.

- **IS/IT architecture.**
 This is a framework that is comprehensive that is used to manage the information technology of an organization, its people, operations etc, in accordance with its operational and strategic goals, incorporates designing of the structure of the information systems.

Ball, N., Adams, C., & Xia, W. (2004). IS/IT architecture: an integrated view and typology.

- **Operating system.**

Software that manages the computers main components which are hardware and software resources, provides also primary services for computer programs, it serves as a middleman between users and computer hardware. eg Microsoft Windows and Linux.
Tanenbaum, A. (2009). *Modern operating systems*. Pearson Education, Inc.,.

- **Database management system.**

Software that retrieves, catalogues, runs queries on data through a standard method, it manages data, database engine, and the database schema for its facilitation of the organization and manipulation of data. E.g. MySQL and Oracle Database.

McCarthy, D., & Dayal, U. (1989). The architecture of an active database management system. *ACM Sigmod Record*, 18(2), 215-224.

- **System software.**

This is type of a computer program with the duty of running application programs and computer's hardware. It is like a space/platform for other software. eg utility software and operating systems.

Fleischmann, A. (2012). *Distributed systems: software design and implementation*. Springer Science & Business Media.

- How data analytics are used to improve decision making in businesses in general.

Well data analytics involves the examination of datasets to study them to make informed conclusions on the information found in them, methods such as statistical analysis and machine learning are the ways in which data analytics are used to make better business decisions. E.g. customer insights and operational efficiency.

Sazu, M. H., & Jahan, S. A. (2022). Can big data analytics improve the quality of decision-making in businesses?. *Iberoamerican Business Journal*, 6(1), 04-27.

CORE BUSSINESS OF VODACOM GROUP LIMITED

The core business of Vodacom revolves around offering telecommunication services to its users, services such as mobile voice and data services are the prominent among the vast services they offer. Digital and financial services are also the kind of services they pride themselves in doing, their core strategy is being able to leave a legacy and footprints around the African continent in telecom service providing.

MANAGEMENT STRUCTURE

The structure of vodacom group is in a form of a group setting or is group-oriented, at the pinnacle is the Board of Directors, consisting of 12 directors, consisting of both executive and non-executive members. The board's main role is to facilitate or oversee the strategic

direction of the company, being in charge of approving projects, and making sure that there is order and governance structures in place. Shameel Joosub, who is a CEO, oversees operations of day to day and reports back to the board.

DEPARTMENT STRUCTURE

- **Technology:** Facilitated by the Technology Director, their responsibility lies within the mobile network engineering and operations.
- **Finance:** Financial Director oversees this department/portfolio, dealing with all the financial and fiscal responsibility of the group.
- **Customer Operations:** conducting surveys to ensure customer satisfaction and loyalty.
- **Human Resources:** this is the training and the welfare of the staff in the company as well as organizational culture and value upholding.
- **Corporate Affairs:** this department deals with regulatory, legal, and corporate engagement affairs.

METHODOLOGY SUGGESTIONS

I would really recommend agile methodology because of two reasons , one it is flexible and iterative, agile encourages continuous adaptability and improvement and therefore is very much commendable, I say this because networks are forever evolving and for a company to survive it needs to adapt. Two it is very important or prominent to agile to communicate between stakeholders and also collaborate with them , this increases the odds of customer satisfaction as issues can be detected early and therefore corrected faster.

Krasteva, I., & Ilieva, S. (2020, December). Adopting Agile Software Development methodologies in big data projects—a systematic literature review of experience reports. In *2020 IEEE International Conference on Big Data (Big Data)* (pp. 2028-2033). IEEE.

The other methodology could be lean methodology as it is efficient and avoids wasting of costs, this methodology minimizes costs on the iteration based of user feedback, and also it ensures only necessary resources are used and therefore no waste. It is also user-centric, the systems that are manufactured are very user friendly and therefore easier to meet requirements, which is effective and efficient way of remaining relevant.

Freire, J., & Alarcón, L. F. (2002). Achieving lean design process: Improvement methodology. *Journal of Construction Engineering and management*, 128(3), 248-256.

OPERATING SYSTEM SUGGESTIONS

I would suggest Linux , this is because it is known for its tough security and stability, this are very critical aspects of a company like Vodacom in making sure that there are no casualties and crashes.

I would also suggest a windows server, because it makes it easier to integrate a vast majority of applications, this makes it easier for the company to manage their IT infrastructure. it also is very user friendly which a company like Vodacom relies much on for relevance and maintaining of their systems, resulting in smooth operations.

Tanenbaum, A. (2009). *Modern operating systems*. Pearson Education, Inc.,.

INFORMATION SYSTEMS RECOMMENDATIONS

Network Management System, this involves the monitoring and managing the performance of the network, this ensures that Vodacom keep their network reliable and available all the time. It is COTS.

Human Resource Management System, I would recommend this because it ensures user-friendliness and therefore makes the staff work or operations run smoothly which will motivate the workers to work more or be more satisfied which will be effective for the company. It is COTS.

Business Intelligence System, this will allow the company to make data analytic driven decisions which will better the odds of a desirable outcome which will be good for the company. It is COTS.

Buckland, M. (1991). *Information and information systems*. Bloomsbury Publishing USA.

IS/ARCHITECTURE RECOMMEDATION

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DATABASE PER DEPARTMENT SUGESTIONS

Customer Relationship Management (CRM) System

System: Salesforce

DBMS: Salesforce Database (Proprietary)

Reasons:

1. Seamless Integration: To guarantee optimum performance and integration, the Salesforce DBMS is especially made to integrate with Salesforce CRM in a seamless manner. Data operations are expedited and compatibility problems are reduced as a result.

2. Scalability and Performance: Vodacom's vast customer data management demands may be met by Salesforce's database, which is designed to handle enormous volumes of data with high efficiency.

Human Resource Management System (HRMS)

System: Workday

DBMS: Workday Cloud Database (Proprietary)

Reasons:

1. Tailored for HR Data: Workday's in-house database is designed with HR data management in mind, offering effective data storage, retrieval, and reporting features that meet HR requirements.

2. Scalability: The Workday database's cloud-based architecture guarantees that it can readily grow to meet the expanding data needs of a sizable company like Vodacom.

Business Intelligence (BI) System

System: Microsoft Power BI

DBMS: Microsoft SQL Server

Reasons:

1. Seamless Integration: Power BI and Microsoft SQL Server interact easily, guaranteeing effective data processing, import, and visualisation capabilities.

2. Advanced Security Features: To safeguard business intelligence data, SQL Server offers advanced security features like encryption and role-based access control.

Kropsu-Vehkaperä, H., Haapasalo, H., Harkonen, J., & Silvola, R. (2009). Product data management practices in high-tech companies. *Industrial Management & Data Systems*, 109(6), 758-774.

THINGS I LEARNED

- Vodacom is one of the biggest entities in south Africa.
- For a business to function well there has to be a lot of departments that work hand in hand to ensure smooth running of the business.
- Businesses rely somehow much on user/customer feedback to be able to stay afloat and maintain relatability.

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