

Big data is synonymous with a large volume of information including but not limited to user-generated data from social media platforms, mobile, GPS and most recently Internet of things (IoT). Other information includes customer, inventory and transactional data.

Companies with capabilities for processing and analyzing data have the potential to have sustained competitive advantage through data-driven innovation in the form of new product development, process improvement, and new market development among others.

The emerging trend of big data-driven innovation is leading to the development of data-driven goods and services and can enable data-driven planning, data-driven marketing, and data-driven operations across all industrial sectors and domains. A good example of data-driven innovation in Kenya is Reverse call feature by Safaricom.

At the SME level, two categories of strategic initiatives could result from big data-driven innovation and its underlying big data value chain. The first category of initiatives aims to make information available on aspects of organizational processes and services to enable improvements.

Viffa conducted a survey in the month of June 2019. The overall aim of the survey was to gather facts and views on the role and impact of data (Either Big or small) on SME innovation.

#### Specific objectives of the survey were;

- I. To establish whether SMEs are aware of big data in their businesses
- II. To establish whether SMEs are capturing big data; what information is captured and which tools they are using to capture
- III. To establish how SMEs store big data
- IV. To establish how SMEs use big data analysis in decision making and business processes

### **Survey Results**

# The extent an organization has experience with big data and data-driven innovation (DDI)

20% of the respondents had no experience, 25% were considering DDI, 20% were planning, 30% were piloting while 5% were effectively using DDI

5%

Using DDI

#### Insight

SMEs in retail were piloting DDI using tools such as loyalty cards to track customer purchasing patterns and CCTV footages to track customer movements within stores. Similarly, SMEs in hospitality, Travel, media, and entertainment were using DDI largely by utilizing data from website traffic, Google search as well as social media data.

#### DDI Experience 2018-2019

	2018	2019
No DDI experience	54.8%	20%
Considering DDI	25.8%	25%
Planning DDI		20%
Piloting DDI	16.1%	30%
Effectively using DDI		5%

### Organization strategy on big data or data analytics

45% of respondents indicated they had a data strategy while 55% had no data strategy.

	2018	2019
Data Strategy	10%	45%
No Data strategy	83%	55%
Not Sure	7%	

#### Insights

SMEs are increasingly turning towards data for decision making evidenced by 34.8% increase in DDI experience as well as a 35% increase in the development of data strategy. This can be explained by increased internet penetration by Kenyan consumers at 39% according to KNBS as well as

increased customer acquisition cost underpinned on tough economic SME environment making SMEs turn introspective towards serving existing customers better through improved processes and cross-selling products.

#### Top 5 Data collection sources

- 1. Financial transactions
- 2. Open data/public sector information
- 3. Social media
- 4. Website visits
- 5. Events

#### Approximate share of data that SMEs exploit to improve business processes, products among others

processes, products among others 20% of respondents used 10% and below of data for DDI, 25% of respondents exploited 20%, 40% exploited 30%, 10% exploited 40% while 5% of respondents exploited over 50% of data for Data-driven innovation.

#### Insight

Data-driven Innovation (DDI) for SMEs in aviation, retail, education, and construction were focused on improving customer experience through improved processes while SMEs in agriculture, manufacturing was focused on product development and improvement.

	Respondent Proportior	
% Data exploitation for DDI		
10%	20%	
20%	25%	
30%	40%	
40%	10%	
50% and above	5%	

### Top 5 value created by big data on SMEs

- 1. Increased efficiency
- 2. Improved customer targeting
- 3. Improved customer retention and lovalty
- 4. Improved financial management
- 5. Improved product design

#### Top 5 data storage locations

- 1. Computer hard drive
- 2. External hard drive
- 3. Physical file
- 3. Thysical life
- CloudCD

## Department involved in data technologies

45% of respondents indicated IT department is primarily involved in data technologies, 35% indicated marketing department, 15% business development department while 5% indicated logistics



#### Insight

There is an increasing shift on the exploitation of data from traditionally IT only to other departments such as marketing and business development in SMEs that are seeing the need of data as an innovation tool in tourism and travel, media and entertainment sectors.



For Further Inquiries contact; Victor Otieno Managing Director Viffa Consult Ltd Mayfair Suites Off Parklands Road P.O.Box 35320 -00200 Nairobi Tel: 254 723 98 25 28 victor@viffaconsult.co.ke

#### WWW.VIFFACONSULT.CO.KE