

BINDURA UNIVERSITY OF SCIENCE EDUCATION
FACULTY OF COMMERCE
GRADUATE SCHOOL OF BUSINESS
MASTER OF SCIENCE DEGREE IN ENTREPRENEURSHIP AND INNOVATION
INNOVATION MANAGEMENT (MEI 501)
EXAMINATION PAPER
DURATION: 3 HOURS 30 MINUTES

MAR 2024

INSTRUCTIONS AND INFORMATION TO CANDIDATES

1. Section A is compulsory and carries 40 marks.
 2. Answer Question One from Section A and any three (3) questions from Section B.
 3. The paper carries six questions.
 4. All questions in Section B carry equal marks of 20 each.
 5. The use of cell phones is not allowed in the examination.
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SECTION A : [COMPULSORY]

QUESTION 1

CASE STUDY: THE EXCITING SUV GTI GETS BETTER

A CHIC, functional little SUV with room for your buddies. Recently, Volkswagen's Tiguan had a very extensive update. Due to global microprocessor shortages that have impacted the automotive industry, it is currently difficult to purchase. I have observed a few in my neighbourhood. The technical data sheet is a body racer's fantasy: An aggressive body style, a Golf GTI engine, a dual-clutch gearbox with rapid shifts, and sporty alloy wheels. Due to all of this and the useful benefits of the attractive Tiguan SUV body form, the Volkswagen Tiguan 2.0 TSI 4Motion R-Line has earned the reputation of being the GTI of SUVs. Like the most recent Golf GTI, the most recent Tiguan provides more of the same thing but with an even sharper edge.

New and exciting thinking

Excellent exterior and creative interior. The new Tiguan is an example of what it means to continually reinvent oneself. Volkswagen did not need to do much in this area because the second generation Tiguan has always been a really attractive take on the mid-sized SUV concept. As a result, the 2018 Tiguan's visual updates are very subtle, and you would have to pay close attention to notice them. The Tiguan's front end had the most noticeable restyling, as the grille has grown slightly wider and the headlamp clusters have somewhat shrunk. While the DRL signature also links into the new corporate VW appearance, the headlights (now LED as standard across the range) feature a similar rearward extension to that seen on the Golf 8. A revised bumper with an increased lower air intake and the majority of the trim components blacked-out as part of the optional Black Style Package completes the nose of our test vehicle. This particular car's iridescent white exterior is nicely contrasted by the gloss-black mirror caps, black roof rails, black 20-inch "Suzuka" wheels, and other design additions. Only a newly designed "R-Line" trim inlay in the fenders really identifies the new model its side-on view; the severe creases down its flanks are still present. The "Tiguan" lettering's new location beneath the new-style VW mark is the most noticeable change from the black, but other minor updates include the LED tail light clusters (which now feature VW's clever sequential indicators) and bumper detailing.

Powerful Performance

Although coupled to a 7-speed dual –clutch automatic transmission and 4 Motion on-demand all-wheel drive, it will produce 162 Kw AND 350Nm. According to the performance promises, the SUV can accelerate from 0 to 100kilometres per hour in under 6.5 seconds while its top speed is limited to 225 kilometres per hour. The transmission is well programmed to take advantage of the engine's torque plateau between 1500 and 4400 r/min for powerful overtaking prowess and effortless cruising ability and it feels about as speedy on the road as well. However, all driving modes –asides from “sports”-feature very sluggish gear shift with general driving smoothness clearly taking precedence over extreme sharpness. In contrast, down shifts are typically held off until the driver exerts more than light pressure on the accelerator, relying on the wide torque spreads for acceleration rather than slamming the revs. This results in deceptively quick acceleration, lessened engine noise, and reduce fuel consumption-acceptable trade-off for a car of this kind.

The drive

The 2018 Tiguan does not feel much different from previous MQB-platform cars when you are behind the wheel, save for the fact that its seating position is a little higher than average. That is hardly a drawback, mind you, as MQB vehicles –like the new Tiguan-tend to be exceptionally well-organised and refined. Certain characteristics certainly stand out as exceptional particularly for this market. For instance, a steering rack with a variable ratio provides a quick steering ratio at low speeds and a slower steering reaction at high speed. The resulting technology provides ample steering help, minimises wheel twisting during parking and completely eliminates uneasiness while driving on the interstate. Although it is not especially communicative (feel such systems are), it does make the Tiguan feel smaller than it actually is in restricted spaces and more steady than it should be while travelling at high speed. The 255/40R20 Pirelli scorpion verde tyres in each corner contributes to the over-all high levels road grip, while the 4Motion AWD system and chassis electronics aid in maintaining tight control of the system.

Space and comfort

The dimensions of this Tiguan are in keeping with the mid-size SUV pattern because it is the regular size Tiguan and not the super all space (which has yet to be locally launched in facelifted form). Even though it is only slightly longer than 4.5m, innovative packing allows for more cabin and utility space than you may think. The cabin has enough head, shoulder and leg room for all passengers and can fit 4 larger people (or five average ones comfortably). A newly added rear seat, which enable the capacity to be divided as needed between the boot and passenger compartment, increases versatility. All Tiguan come standard with cruise control, LED headlights, leather steering wheel trim and basic "composition "colour touch screen infotainment system. This adds to an already extensive base specifically. The life grade includes an electric tail gate, front cornering lights, front and rear parking sensors, 3-zone climate control and new, simple touch and swipe controls. Keyless entry, opening panoramic sunroof, a head up displays, and inductive charging pad, the discovery pro-infotainment upgrade with wireless app connect, a rear view camera (surrounding view in an additional option), a thunderous Harman kardon sound system, IQ Lights (upgrading the standard headlights to adaptive matrix LEDs with 22 individual elements per cluster), a panning camera, and a panning mirror are just a few of the optional. The latter includes automated emergency braking, lane-keeping assistance, adaptive cruise control, and blind-spot monitoring. However, at this price, IQ Drive and keyless entry should be standard, especially for the top-of-the line R-Line model.

New Level for safety

In its 2016 Euro NCAP crash test rating, the Volkswagen Tiguan got 5 stars, with adult occupant protection being excellent at 96%. The required ABS and EBD and BAS, stability – and traction control, rear ISOFIX child seat anchors, and six airbags are all included in the standard safety kit. However, as mentioned above, our test car had a number of additional safety modifications that came at an additional expense, many of which were desirable additions to the basic specification sheet. Volkswagen estimates that the Tiguan 2.0 TSI 4Motion should use 8,3/100 km on average, but our test vehicle's trip computer recorded 9.81/100/km for mixed cycle usage. Low-speed/stop-go driving (such as in town or in a game reserve) quickly raises it closer to 121/100km, but freeway cruising should result in low-8.1/100 km statistics. Even while the real-world economy is decent, it isn't exactly as thrifty as you would want. However, the fact that a 130Kw TDI variant, the only diesel planned for

the new range, will enter the local Tiguan line-up before the end of 2022 should comfort fuel sippers.

Source: Zimbabwe Independent: Motoring Section: July 29 to August 4, 2022, p16

Required:

Carefully consider the following questions and answer them based on the case study above as well as your broad appreciation of issues in Innovation Management.

- a. With reference to types of innovation, how would you describe the recent Volkswagen Tiguan update? **(5 marks)**
 - b. From the way the Volkswagen Tiguan is described, what can you identify as those aspects which show that the company is an innovative organisation? **(5 marks)**
 - c. Looking at this Volkswagen Tiguan case, what do you think were the main drivers of innovation? Justify your answer. **(10 marks)**
 - d. Describe the benefits that customers enjoy when they deal with innovative organizations like Volkswagen. Support your answer with examples from the case and others from your knowledge of business in general. **(10 marks)**
 - e. Identify and briefly explain why it may be beneficial for an innovative company to produce more of the same. **(10 marks)**
- (Total: 40 marks)**

SECTION B: Answer any three (3) questions from this section.

QUESTION 2

- a) Define technology and innovation. **(6 marks)**
 - b) Innovative organisations may be identified by their approaches to business. Briefly discuss any seven (7) of the characteristics of such organisations. **(14 marks)**
- (Total: 20 marks)**

QUESTION 3

- a) Briefly describe each of the types of innovation and explain which one is a dominant one in an industry of your choice in Zimbabwe. **(15 marks)**
- b) Explain the role of the government in creating innovative organisations and society in general **(5 marks)**
- (Total: 20 marks)**

QUESTION 4

Discuss the relationship between strategic management and innovation. **[20 marks]**

QUESTION 5

Based on the MIC Model, describe the main characteristics of the most innovative companies and briefly show how that explains innovative companies in Zimbabwe. **[20 marks]**

QUESTION 6

Explain key asset management and show how organizations may protect their intellectual property. **[20 marks]**

END OF EXAMINATION PAPER.