SKILLS NEEDS STUDY

Draft Report – Qualitative Phase

23 April 2021

Context

The AMM is a private sector organisation, more specifically representing the interests of local manufacturers.

The AMM has the mission of promoting local manufacturing and supporting the transformation of the Mauritian manufacturing sector. The AMM itself is undergoing a transformation and aims at operating as a Think & Do Tank for the sector; to be successful in tackling collectively deep technological, behavioural and environmental evolutions.

70% of manufacturing companies in 2018 reported that they had to recruit in the past two years, and a majority of them reported that a low number of applicants had the required skills. This points out the shortage of skills as one of the key issues faced by the manufacturing sector.

Hence aiming to address the skills shortage issue, the AMM wishes to better understand the needs of manufacturing companies, expectations of the young generations as well as the perception of training institutions.

Objectives

- Evaluate the supply and demand in skills of the manufacturing sector
- Assess the attractivity and perception of employment in the manufacturing sector
- Understand the perception of skills training in Mauritius
- Assess the drivers/barriers to skills training

METHODOLOGY

Target:
Manufacturing sector
(AMM members and non-members)

Target:
Youngsters
(Undergraduate Students)

Focus Groups - Exploratory
(AMM members only)

Web Survey*

Focus Groups – Exploratory

Web Survey*

Fed into next phase:

Definition of Current and future skill needs

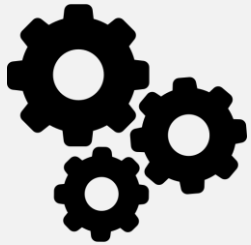Definition & Quantification of current and future skills needs

Reasons for attractivity of sectors and skills

*Both Web surveys are in progress, with fieldwork expected to complete by end of April, and report by the end of May

MANUFACTURING SECTOR

FOCUS GROUPS

Specifications:

Participants	HR/Training Managers of AMM members
Number of groups	10
Avg Pax per group	4-5
Duration	1.5 hours
Venue	AMM/HRDC
Fieldwork timeframe	27th of October – 27th of November 2020

Target subsectors:

Beverages

Food processing (x2)
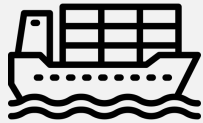
Building materials

Chemicals (x2)

Plastics

Energy

Engineering

Directors

The main challenges of the manufacturing sector are as follows:

Competition w/ Imports

Facing competition from cheaper imported products while bearing the cost for producing goods

COVID19

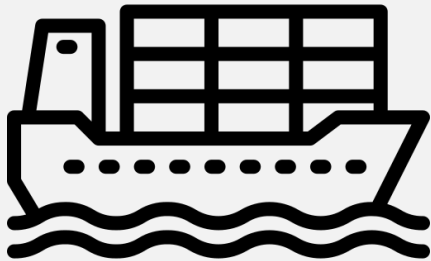**Supply & Demand disruption**

A global pandemic that has disrupted supply and demand of both goods of services, yet still provides some local opportunities

Shortage of labour

A lack of attractivity of the sector, a lack of fresh blood and consequent ageing workforce
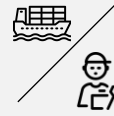
- Several costs are incurred by manufacturing companies so as to make products, and namely in the form of

  - Procurement/Shipping of raw materials

  - Operational costs (machinery, human resources, power)

  - Distribution/Logistics

- However, despite their ability to supply the market with local products, they face competition from numerous imported ones

- Where some can be significantly cheaper and their quality cannot necessarily be ascertained

"We know our own products and they of excellent quality. Now, there are poultry products from Brazil and they are very cheap. At this price, you wonder how much chicken meat content this actually contains."

- And hence, some manufacturers believe there should be more efforts from the government to promote and protect local products

Demand disruption

- Covid-19 has dampened the economy and the ensuing inflation, and especially from the increase in tax for sugar-containing products, has reduced consumption

- The tourism sector, a sizeable part of the demand towards manufacturers has had little to no activity since the start of the pandemic

- Moreover, more difficulty to export products has likely been the reason for the closure of textile companies

Supply disruption

- Procuring raw materials has been more difficult with the pandemic especially for those companies reliant on materials which cannot be sourced locally (e.g. chemicals)

- This is exacerbated by the inflation of the Rupee as compared to foreign currency which has lead to a significant increase of price of imported products

- Additionally, the pandemic has also cut off some companies from their service providers (namely repairs and maintenance of machinery)

Local opportunities

- The companies which had lost their access to their service providers have turned to local providers instead

- While the challenge is to keep those clients, this may pave the way towards more synergy between manufacturing companies

- Those disruptions have resulted in companies having little to no visibility of the future, and being unable to plan for the future

"Right now it is rather difficult to plan for years ahead. We're more going by day to day planning, and with planning for a week at most."

A LABOUR AND SKILL SHORTAGE

- The manufacturing sector is very labour intensive yet is short of labour and skills

Due to   *Leading to*   *Resulting in*

Lack of attractivity

- Given the working conditions in terms of physical exertion and odd working hours

- A lack of prestige compared to other sectors compounded with manual work being generally looked down upon in Mauritius

Lack of fresh blood

- With youngsters preferring to work in more prestigious sectors (e.g. call centres) and only staying in manufacturing companies for a few months before moving on

- But also, difficulties to retain skilled and/or trained staff who will move for a better offer, or prefer public sector job opportunities

- And a lack of discipline among recruits, with repeated absences which impacts operations

Ageing workforce

- Whose skills may eventually not be transmitted

- But who are also more resistant to re-skilling

- And hence accentuating the labour shortage

- And while the solution had been to rely on foreign workers, the pandemic has made access to them more difficult

While institutions' graduates could be a source of fresh recruits, and even if the latter showed interest, there are the following issues:

Courses mismatched to the sector

- The syllabuses of the courses of some institutions seem to be obsolete and companies can find themselves with graduates who lack the very basic knowledge and skills required in factories nowadays
- Moreover, courses offered by certain institutions do not reflect the future nor even the current needs of the manufacturers which acts to further stretch the skill gap

Inadequate Traineeships

- Manufacturers believe that new recruits are out of touch with the industry due to a lack of exposure and a syllabus that is too focused on theory
- For one, they contend that there is a lack of emphasis on traineeships, especially for engineering students
- Moreover, while some institutions actually have traineeships included in their programmes, students are not given properly defined objectives for their training nor is there proper follow up/monitoring
- Hence those students end up doing odd jobs instead of being exposed to the important processes and structures that would help them be prepared for the industry
- Furthermore, training are typically done at the end of the final year of the courses, when having more regular exposure would be better for both the students and the industry

Lacking in soft skills

- In addition to the belief that the practical component is lacking, manufacturers also contend that recruits from some institutions have a lack of soft skill e.g. communication skills, stress management
- Moreover, they can see a clear difference with recruits who have studied abroad who are more confident and are able to express their views and ideas better

Two main programmes have been considered by manufacturers:

- **NSDP**
  - A few manufacturing companies have had recourse to this programme
  - However, the main barrier is having to meet the number of participants criteria for a programme to be run

- **YEP**
  - Most manufacturing companies have tried to make use of YEP
  - However, they contend that the YEP list they have access to is not reliable:
    - candidates who have already been employed do not deregister from the list and time is lost on calling people who are not interested in a job
    - Moreover, there is little information which can be gleamed from the list (namely skills), and time again is lost, on calling participants who may not be suited for the job
  - Moreover, some companies have misused the YEP
    - That is: continuously taking in YEP graduates whom they have no intention of giving a permanent employment, with the aim of benefiting from the 50% of wages paid by the government
    - Due to this, youngsters have started to become wary of companies offering them YEP-based contracts
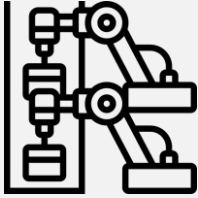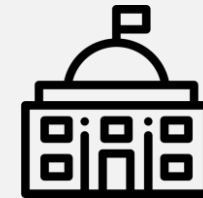
Automation

- Maybe the best solution towards addressing the shortage of labour in the sector

- While not every company may be able to be completely automated, increasing the level of automation is likely to reduce its dependence on scarce labour
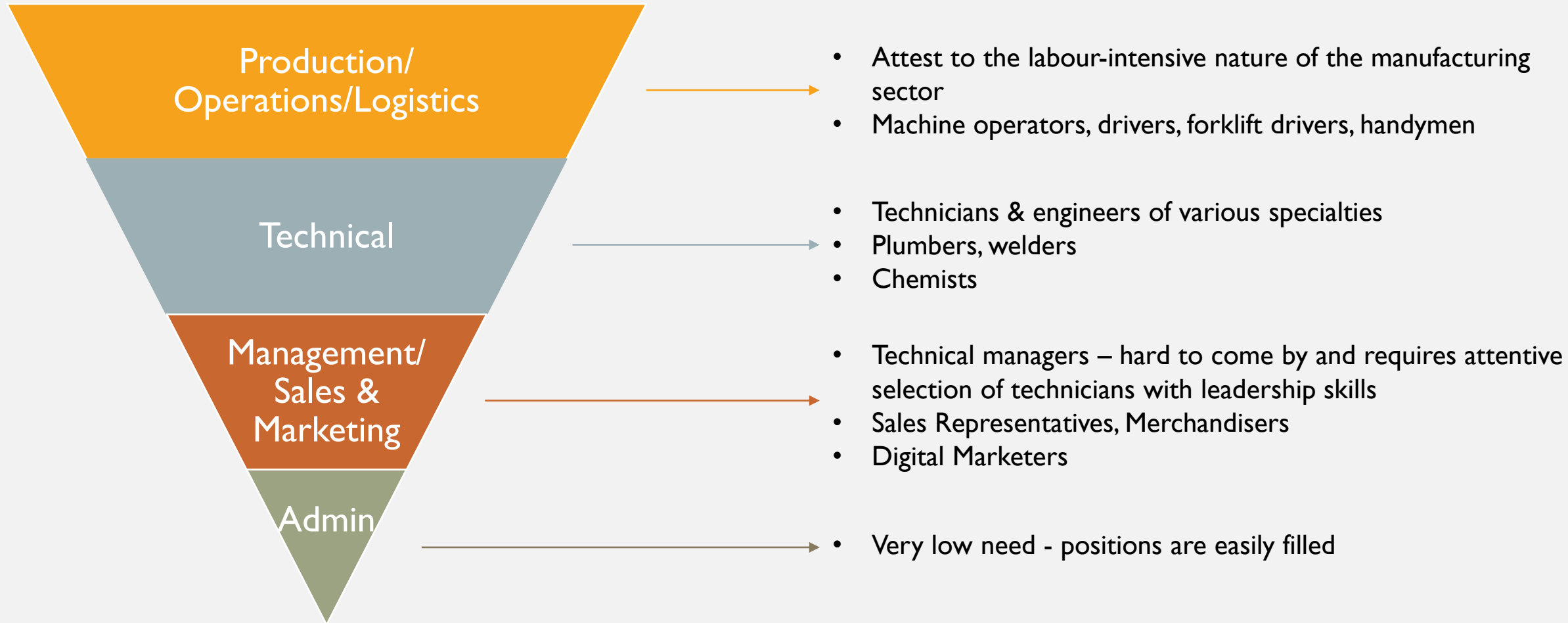
Partnerships w/ institutions

- Would help institutions build courses that are relevant to the industry while also working towards having better traineeships

- Moreover, while automation is likely to reduce the need for manual labour, it will increase the need for skilled one as well as technical skills such as programming

- Hence, partnerships with institutions might help create these profiles on the market at a time where they will be needed and hence be able to find jobs

Government intervention

- As a driver in two ways

- By promoting automation of the industry through e.g. subsidies on machinery purchase

- By promoting local products through levies on goods that are direct competitors to locally produced ones

STAFFING NEEDS PRIORITY

Production/Operations/Logistics
- Attest to the labour-intensive nature of the manufacturing sector
- Machine operators, drivers, forklift drivers, handymen

Technical
- Technicians & engineers of various specialties
- Plumbers, welders
- Chemists

Management/Sales & Marketing
- Technical managers – hard to come by and requires attentive selection of technicians with leadership skills
- Sales Representatives, Merchandisers
- Digital Marketers

Admin
- Very low need - positions are easily filled

OVERALL SKILL NEEDS

Hard Skills

- Computer/Technology literacy
- Digitalisation
- Food safety
- Food technology
- Information processing
- Microsoft packages proficiency
- Performance Management
- Programming
- Project Management
- Risk Management
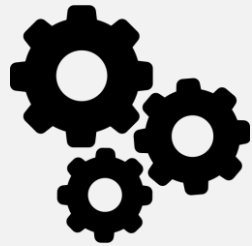- Sanitary Protocols
- Sales
- Stock Management

Soft Skills

- Accountability
- Communication skills
- Conflict Management
- Critical thinking
- Negotiation
- Operations Leadership
- Stress Management

YOUNGSTERS

Specifications:

Participants	Students
Criteria	Enrolled in Engineering or IT courses
Target institutions	University of Mauritius Charles Telfair Campus Polytechnics Mauritius
Number of groups	3
Avg Pax per group	5
Duration	1 hours
Venue	Institution premises
Fieldwork timeframe	4th - 16th of December 2020

Primary Spheres

Secondary Spheres

Studies

Family

Hobbies

Friends

Sport
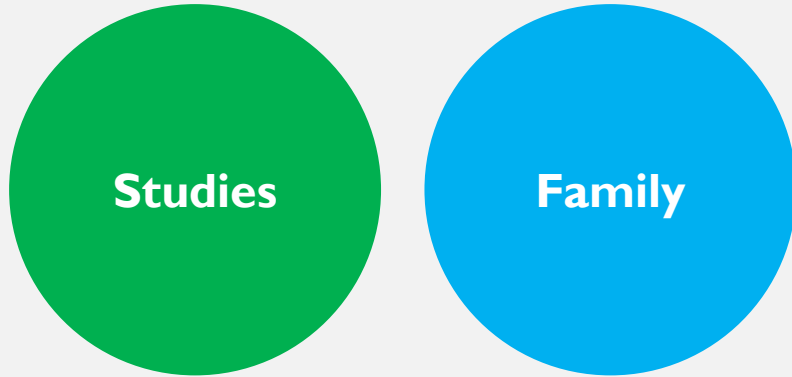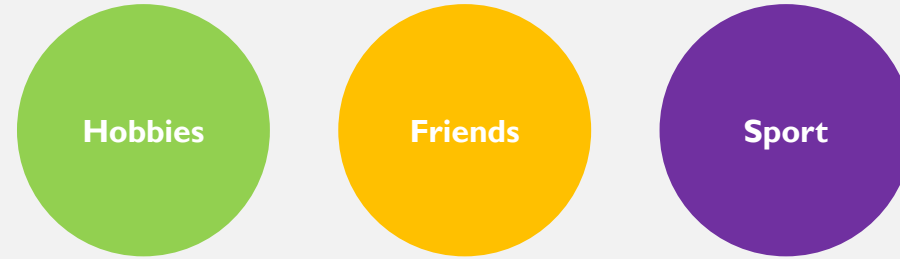
- All in all, at this stage of their lives, most of the students have studies as a primary sphere
  - While for some studies is the most important sphere, for others, and especially due to Covid, family has increased in importance

- However, while having studies and family as primary spheres, they still perceive that hobbies, friends and sports still make up important parts of their lives, and hence they still give significant time to these

- Yet, they contend that spheres are not static and are subject to change depending on even the short term e.g. being solely focused on studies during assignment/class tests-heavy or exam periods

Primary Spheres

Work

Secondary Spheres

Family

Hobbies

Friends

Sports

- As they start to work, the studies sphere is likely to disappear and be replaced by a work sphere

- Most of students acknowledge that at least initially, work will be the primary focus of their lives and being likely to swallow most of their time

- This is likely to result in the shrinking of most of their other spheres and pushing them into the secondary category

- Hence, they believe that the challenge will be to be able to achieve work-life balance and in time allowing those other spheres to grow again

- Overall, current students have a rather negative outlook on their prospect when they will join the job market, and for two reasons:

COVID19

- Covid-19 has had a very negative effect on the economy
- Which has contributed to closing down of companies
- And hence has increased the number of unemployed and competition on the job market
- Moreover, some students can already experience its effects as they have been experiencing difficulties in securing traineeships ever since the first lockdown

- A general sense of vulnerability to precarious employment
- Which has existed before the pandemic, the latter having accentuated it
- Namely, they feel vulnerable to receiving only temporary job offers from companies with no pre-established conditions for permanent employment

"Companies take young people like us, but yet do not give us long term contracts. It is always 6 months or 1 year, then they'll see. But as youngsters, many of us have projects and this puts us in a bind. Should we keep waiting until we get a permanent job which will take years? Or should we already take loans, bonds, investments and take the risk of not being able to pay if that company does not take us permanently?"

- Those two factors, furthermore, fosters a feeling of insecurity among students, and especially among those who are currently in the final year of their studies and will soon have to brave the job market
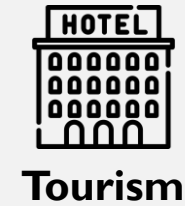
- Most of the students mainly mentioned the sector that is closest to their studies and did not seem to be aware of what opportunities from other sectors could provide them with

- Hence:

IT students mentioned:
- Fintech – because it has a lot of opportunities, and requires a more versatile set of skills
- Cybersecurity – a field within IT that is getting more and more in demand as the need for companies to protect their data becomes more and more important
- Software development – basically what they consider to be the bread and butter of IT
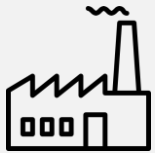
Logistics and Engineering students mentioned manufacturing because:
- Of an interest in technology or machinery
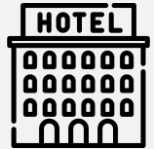- It will always remain crucial to the economy

- However, they also mentioned interest in other functions of a company such as Human Resources, Marketing and Research as they believe those will always be crucial to any company

Education
- A hit or miss sector which would require passion, patience and dedication to teaching

Tourism
- Especially given the current pandemic which has deeply affected this sector

Public Sector
- For IT and engineering students, the public sector is less than ideal because of its stagnant nature which will not allow them to use and develop all of their skills
- Moreover, the possibility of having to face nepotism to get a job or promotion repulses them

Accounting & Medicine
- Because those sectors are already saturated, it is unlikely that they will find any opportunities there

Finance
- High pressure sector, where it will be hard to maintain a work-life balance e.g. having to rapidly respond to changes in the stock market for clients

Overall the manufacturing sector is neither attractive nor unattractive to young undergraduates

On the plus side… | …On the flip side

On the plus side…

- An important and solid sector as demonstrated by factories still working during and after the lockdown
- Which is especially true for the food cluster given that there will always be demand

- A good place to learn about businesses and improve one's skill, especially if they want to be an entrepreneur

…On the flip side

- A sector that has stagnated for decades, that has done little to innovate and is hence monotonous

- A stressful sector accentuated by constant deadlines and repetitive tasks that make people look like 'robots'

- A sector which is rather unknown, especially given that there is little communication done by the companies

23

- The manufacturing sector, while seen as lacking innovation and stagnant, is still seen as one with potential by engineering undergraduates

- Namely they believe that investing more in technology would make the sector attractive, and they want to be part of this process of transformation

  "[The manufacturing sector] is really lagging behind nowadays and it needs new ideas. I think that the manufacturing is really losing [opportunities] by not looking at new things that are coming. Why isn't the sector taking advantage of these? It's too stagnant. It's the same thing that they have been doing in the past – the same strategy. But the context has changed, and it needs to change, to innovate. And I would love to go into this sector, to develop it and rid it of its monotonous state. It really is not supposed to be monotonous."

- Furthermore, while IT undergraduates, at first show no interest, the prospect of getting to work with new technologies and automation makes the sector more appealing to them

- Overall, the main expectations of youngsters towards their future employment is as follows:

A sense of progression

1
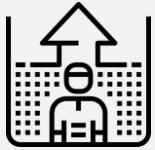
- Youngsters abhor stagnancy and hence want to feel that they are progressing
- This could take the form of increased salaries, promotions, increased knowledge & skills, or progress in their personal lives

A means to accomplish their projects

2

- A job is after all for most, a means to achieve the personal/life projects that they aspire to and progress in their personal sphere
- Whether it is about building a house, purchasing a car, getting married and being able to cater to the needs of their future families, a job should be able to provide them with the means to do so

"It's all about how much progress I made, about the promotions I have earned, about the opportunities ahead of me and that I can still grow there. […] The company values my skills and rewards me for it. In the same way, if as I progress I see that I've been able to purchase car, a house, that I improved my life, this will make me feel loyal to the company, because they have been loyal to me too."

A pleasant experience

3

- While enjoying one's job and progressing is great, youngsters believe that there is more to a pleasant job experience
- Namely, this relates to the work environment, but also to having an atmosphere that is conducive to sharing ideas, but also more casual interactions

CAREER EXPECTATION SUMMARY

Poles	Preference
Job Hopping v/s Lifelong career	Job Hopping
Vertical progression v/s Horizontal progression	Vertical progression
High salary v/s Ideal job	Ideal Job
Employee v/s Entrepreneur	Employee then entrepreneur
Hands-on learning v/s Formal training	Hands-on learning
Desk v/s Non-desk	Mix of desk and non-desk

Job Hopping

- For the most part, youngsters prefer job hopping as it is ideal in giving them better opportunities in terms of:

  - Career growth

  - Experience through exposure to different environments/sectors

  - Skills acquisition

- While salary is also one of the factors, it is not the sole one and seems to be accompanied by the above-mentioned factors

- Moreover, job hopping may also serve to find the environment where they may feel the most at ease with

Lifelong career

- Very few entertain the possibility of a lifelong career just after their studies and most contend that it is most likely to happen at a later stage in their careers

- However, it may also be sector dependent, as those studying logistics related courses consider that their main option would be the Mauritius Ports Authority, which would imply a lifetime career

Vertical Progression

- Easier to track progress through promotions and more responsibilities

- Promotions are usually accompanied by salary raises

- Leads to opportunities to interact with higher ups of the company

Horizontal Progression

- This type of progression is more likely to allow employees to use and develop and greater range of skills

- But also more exposures to different departments/functions or sectors

- However, they would expect that an increase in responsibility would be accompanied by an increase in salary

High salary

Ideal Job

- The few who would rather have a high salary contend that they are likely to get bored in time and would likely look for change in job or careers and even consider entrepreneurship

- Hence it would be better to have a higher salary so as to potentially have a better capital when they decide to start their own business

- Most would prefer an ideal job, with however, a reasonable salary

- They hence prefer to sacrifice a higher paying job for one where:

  - They would enjoy going to everyday

  - There is a good working environment and friendly colleagues

Employee   **Entrepreneur**

Employee then entrepreneur

- Entrepreneurship is considered to be more exciting and giving more opportunities to learn new things

- Hence, most students show at least some interest in entrepreneurship, but would rather learn and get more experience as employees beforehand

- However, at this point most of students only consider the idea as interesting and neither have set this as an aim, nor would be put off by the idea of being employees for their whole career

Hands-on learning

Formal training

- Hands-on learning is preferred as it implies that knowledge is understood and applied at the same times

  - Whereas formal training might not make sense immediately

- Moreover, in some sectors such as maintenance, they contend that the only way to learn is through on-the-job training

- While not totally off-putting, they believe than in certain situations, it may be better to have a formal training then followed by hands-on learning

Desk

Non-desk

- Mainly for IT focused courses where their jobs would be focused working on a PC to accomplish their tasks

- Especially among engineering course students who contend that no engineering job would have them spending the entirety of their times behind a desk

Mix of desk and non-desk

- However, even among IT focused courses, they would still like to have a mix of desk and non-desk

- They believe that this would provide them with opportunities to meet new people and broaden their skill range or improve them

Poles	Preference
Professional atmosphere v/s Casual atmosphere	Casual atmosphere
Office space v/s Working from home	Mix of office space and working from home
Autonomy v/s Continued guidance	Autonomy
Teamwork v/s Individual work	Teamwork
Single tasks v/s Multiple tasks	Multiple tasks
Normal hours v/s Odd hours	Normal hours
Strict work hours v/s Flexitime	Flexitime
Overtime payment v/s Time off	Overtime payment

Professional

- More useful in an environment where meeting with customers is often expected and where this kind of atmosphere would lend them more credibility

Casual

- Leads to a more comfortable environment to work overall

- Can be more productive given that it is easier to communicate and be open about your ideas

- Casual offices tend to be more open-minded e.g. the acceptance of dreadlocks, or tattoos

Office space

Working from home

- Allows for clearer division between work and personal life/time

- Gives the opportunity to socialise with colleagues

- Easier communication especially in tight deadline or other high pressure situations

- Greatest advantage in not having to commute to and back from work

  - Saves time which can be used in personal life

  - Less tired and stressed from having to spend time in traffic everyday

  - Avoids unpredictable incidents such as accidents or bad weather

Mix of working in office and working from home

- Allows for reaping the benefits of both working in office and working from home

- The preference tends to be either 3 days working from home and 2 days in office, or the opposite

AUTONOMY VS CONTINUED GUIDANCE

Autonomy

Continued Guidance

- While at the start they will require guidance, in the long run and after gaining experience all of the students aim to be as autonomous as possible in their work

- This is even more true for IT students who will be expected to work on their own on their tasks/projects

- None of the students expressed this preference

Teamwork

Individual work

- To get a maximum of input while working on a project

- Having more persons working on different task can help make the project proceed more quickly

- Sense of solidarity that helps especially during stressful times

- Easier to take responsibility for one's own work instead of relying on a team where other members:
  - Might not be motivated
  - Might have different senses of urgency
- And where it can be tiring to deal with other team members

Single task

Multiple tasks

- Give undivided attention to one task to:
  - Make sure it is the best possible
  - Avoid mistakes or slips that could happen if they had to switch from one task to another

- Having multiple tasks to do can be more exciting and it can motivate one to work harder
- Working on different tasks at a time can be useful in that:
  - Moving from one task to another when facing a block can help find the solution later on, while still remaining productive
  - One solution from one task may be able to fit several other tasks

Normal hours

- Preferred by nearly all students

- Best for work-life balance as odd hours are very likely to interfere with other life spheres given that most relatives and friends are likely to work normal hours

- Parents might not agree to their children, especially daughters, working odd hours

- Keeping a normal and constant sleep routine is better for health

Odd hours

- The very few who would be ok with odd hours find that it
  - feels less routine
  - gives more opportunities to meet new people
  - pays better rates

Strict work hours

Flexitime

- Avoid situation in which one's employer may not respect the boundaries of work and personal time:
  - E.g. Using flexitime as a reason to ask an employee to work on a task at any time, even when the latter has already worked their required hours

- More advantageous for their personal lives and allows employees to work at the times where they are the most productive

- Could be used to avoid heavy morning traffics leading to a stress-free and faster commute to work, especially for those who live relatively far away from their workplace

40

Payment

Time off

- Overtime payment is more rewarding and motivating because:

  - As youngsters they have projects and overtime payments can help them achieve this faster

  - Rates are better for overtime, an advantage which would be lost with time off

- Moreover, many do not believe that they will need a lot of time off, and would rather simply use their annual leaves

- Might be more interesting at a later life stage if time becomes more rewarding than money

41

Dealbreakers for students can be regrouped into job and company culture factors, with the latter seeming to weigh slightly more than the former

Company culture factors

Unpleasant environment
- Whether it is a physical environment that does not make them feel comfortable
- Or a rather cold and unfriendly atmosphere among colleagues

Lack of ethics
- Namely that they would steer away from companies:
  - With a history of corruption or which has been found to be corrupt
  - With obvious nepotism where they would feel they would never really have a shot at climbing the ranks
  - That do not provide equal opportunities and discriminate on the basis of gender, race, sexual orientation etc..
  - That are indifferent to ecology
  - That do not abide to its own defined company values

Job Factors

Excessive working hours and/or workload
- Which are likely to interfere with personal life
- And especially if not remunerated fairly

A lack of progression
- Which include opportunities to learn, skill up, or gain more responsibilities

Precarious employment
- A company with a reputation of recurrent short-term employment of fresh graduates is likely to make them thing that they do not have a shot at a stable employment there

- In terms of skills, nearly of the students mentioned soft skills which would be in the form of:

  - Public speaking and presentation

  - Persuasiveness

  - Customer relations

- Only 'Sales' was mentioned as a hard skills

- Otherwise, the students contend that at this stage of their lives, they are unsure of what other skills would be beneficial to them and believe that they will have a clearer picture once they acquire enough work experience

CONCLUSION

- The results of the two focus group phases have helped to prepare and fine-tune the web surveys, with the following being explored
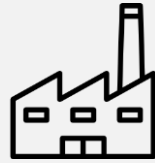
Manufacturing

- Posts identified in focus groups:
    - Which are needed in the next 5 years?
    - How much are needed in next 2 years?
    - How much are needed in next 3-5 years?
- Other needed posts:
    - How much are needed in next 2 years?
- Skill needs identified in focus groups:
    - Levels at which training is required in company
- Other skill needs
- Perceived solutions to transform their industry

Youngsters

- Previous working experiences
- Opinion on sectors of activity and public/private sector
- Perception of manufacturing sector
- Life priorities
- Attitudes towards work
- Expectations towards companies
- Salary expectations
- Employer dealbreakers
- Most important skills for success on the job market

- The web surveys will further refine the results obtained through the focus groups and quantify them, which will later help to devise targeted interventions to address the skill needs of the industry