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IPS beyond 2021

2021 has been a pivotal year for the Institute for the Public Services (IPS) in which all aspects of the Institute have been reviewed and contextualised in response to the constantly evolving realities of a modern people-centric and quality-driven Public Service operating - amongst other - in the challenging circumstances of a pandemic.

In the early months of 2021, the management of IPS embarked on a focused and ambitious reform programme. This resulted in the launch of several initiatives aimed at offering a wider range of learning, development and research solutions for the Public Service whilst improving IPS's internal structures, policies, procedures, and systems. The scope has been the improvement of the services offered to its key stakeholders: Course participants, trainers, ministries and entities, and the various students falling under the apprentice scheme, sponsorship programmes and the IPS Students Scheme.

The dynamic growth and the future envisaged for IPS shall present it with several ambitious goals as it takes its position as one of the main stakeholders in the new five-year strategy for the Public Service - Service of Excellence launched in November 2021. The five-year strategy focuses on three elements, Technology, People and The Service whilst Quality, Accountability and Sustainability are its three key principles.

IPS Foreword

The IPS, in parallel with the improved and expanded Employee Support Programme (ESP), will lead and support all the initiatives that are focused and related to the people as internal customers in respect of their development, skilling or re-skilling. This will ensure that the formation of the people will equip them with abilities to act as service providers of services of excellence.

Furthermore, through its Research Unit, the IPS in conjunction with the People & Standards Division is tasked to analyse and address the future employment required of the Public Service through the recruitment of full-time students in identified areas. The IPS retained the existing traineeship scheme and increased the apprenticeships in the Public Service. Consequently, the first pilot project that saw the recruitment of the first full-time IPS students was launched in October 2021. This will be broadened to engage students in other areas and levels.

The development of leadership which can inspire and motivate is crucial for the aspired Public Service successes in the coming years. The IPS will have a central function in conjunction with the ESP in the holistic formation of the Public Service leaders of today and tomorrow. Such formation will not only ensure that improved leadership skills including decision making and problem-solving abilities are enhanced and constantly reviewed, by IPS and ESP, but based on integrity testing and formation sessions will be tasked with the improvement of any gaps assessed in leaders and other employees in this respect.

As the various initiatives included in the new Strategy start to develop, the IPS becomes instrumental in the attainment of their successful implementation through research and ongoing development of public officers. The development of the necessary Sustainable Structures upon which the innovative desired Technologies and the Services will depend, cannot only be designed around the nuances of dynamic digital processes and AI, but they will rest on the required skills and development of public officers.

The IPS will act as the liaison and coordinator for any training and academic studies required with its Strategic Partners, the University of Malta and the Malta College of Arts, Science and Technology in these specialised and highly sophisticated areas.

All this requires a firm commitment and a collaborative, proactive attitude on the part of all stakeholders and the achievements in 2021 indeed serve as a sound foundation for work ahead.

Dr Joyce Cassar
Permanent Secretary
People and Standards
Office of the Prime Minister

A new academic year for IPS

- 5th anniversary commemoration of the institute for the public services

The academic year of the Institute for the Public Services (IPS) officially opened with an activity on Friday 1ˢᵗ October 2021, marking the fifth anniversary from the establishment of the same institute. For this year, IPS will be offering 270 courses and already received 2,500 applications for the first half of the year. As of this year, IPS will also have its first full-time students at bachelor level. These will join the Public Service upon successful completion of this course.

During this event, the Prime Minister Hon Dr Robert Abela and the Head of the Public Service Mr Mario Cutajar, addressed those present.

Prime Minister Dr Robert Abela announced that the Cabinet of Ministers approved a new five-year strategy for the Public Service with the ultimate vision of a service of excellence.

The Prime Minister said the new strategy proposed by the Public Service would be based on three pillars: People, Technology, and Service. These will embrace the principles of quality, accountability and sustainability, which principles are also shared by the Government. All this shows that the Public Service not only has a vision of where it wants to go but also what needs to be done. The Prime Minister described the Public Service as a leader in various sectors in our country, among others in the environmental sector, with the study to convert the whole fleet of Public Service vehicles to electric ones. Another noteworthy reform was the introduction of Remote Working. He concluded that these reforms in the Maltese Public Service did not went unnoticed, and indeed our country was chosen by an international publishing house to serve as case-study for other countries on public service reforms.

Principal Permanent Secretary Mr Mario Cutajar said that just as the Institute for Public Services has been instrumental in the renewal and reforms undertaken

in the Public Service in recent years, it will remain an integral part of the implementation of the new strategy towards a service of excellence.

He mentioned how previously there was a gap between the training element and the needs of the Public Service, and that IPS was the first institution to combine these elements with the Public Service vision. Today, IPS issues a comprehensive list of courses through a prospectus, while regularly sponsors public officers to make the next leap.

The Head of Public Service mentioned how in these five years around 400 workers were given sponsorship, while around 500 students were given a traineeship or apprenticeship.

At the end of the conference, Prime Minister Dr Robert Abela and Principal Permanent Secretary Mr Mario Cutajar unveiled a memorial of the occasion, which was designed and produced by MCAST students.

The public service strategy: the role of IPS

A new 5-year Public Service strategy was launched during a conference entitled 'Achieving a Service of Excellence'. The strategy has as its ultimate vision the achievement of a service of excellence. The strategy is based on three key elements that are people, technology, and service.

The new 5-year strategy incorporates 45 initiatives, broken down by themes, which will serve as a work programme to realise the vision in the next five years. In order to implement the improvements required as a result of the identified themes, 3 pillars have been chosen as enablers to support such work: People, Services and Technology.

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IPS Story Board

The Institute of the Public Services (IPS) plays a key role in People management and development and thus has a number of initiatives falling under this theme of the Strategy. IPS is the owner of a number of initiatives and is also supporting other entities in the implementation of other initiatives which mainly revolve around the following areas:

1. linking the IPS Training Management System to the appraisal performance system;

2. enhancement of the training programmes for Public Officers;

3. evolution of the Public Service through research opportunities by strengthening the Research Unit and focusing the research itself and also by providing students with an opportunity to participate in the implementation of their own recommendations;

4. expansion of the IPS Student Scheme;

5. extension of the IPS Apprenticeship Scheme;

6. rewarding experience through the Recognised Prior Learning (RPL) project;

7. launching of a Leadership Programme, which will replace the existing Management Toolkit, and will include Integrity Assessment, Psychometric testing, and additional leadership modules; and

8. improving employee advancement and skills matching through a Career Guidance programme.

IPS is committed towards achieving the vision of the 5-year strategy and will thus keep working towards the achievement of a service of excellence. IPS is also committed in supporting employees who are the key resource in every Strategy and will keep encouraging employees to pursue continuous professional development.

For more information one can access the five-year strategy by clicking this link: https://publicservice.gov.mt/en/Documents/Achieving-A-Service-of-Excellence-2021.pdf

The IPS aims at improving the expertise and mindset of students …

First cohort of IPS Students commence their studies

As announced the Principal Permanent Secretary Mr Mario Cutajar on the 3rd June, In the beginning of October, 18 students forming the first cohort of the IPS Student Scheme commenced their first academic year at the Malta College of Arts, Science and Technology.

The students shall be reading for the BA (Honours) Procurement and Finance course (3 students) and the BA (Honours) Public Policy and Management (11 students).

IPS Students will have the opportunity of consolidating the theoretical and work placement perspective. It is a package in which the student will have the opportunity to form part of a scheme which provides a generous paid work-placement, in addition to the stipend, and mentoring whilst a full-time IPS Student.

The IPS aims at improving the expertise and mindset of students, whilst offering them an opportunity that, upon satisfactory completion

of their studies and through the experience gained, they will become full-time employees at managerial levels within the Malta Public Service.

The IPS Student Scheme offers benefits for both the students and Malta Public Service. Once the new recruits are employed, the Malta Public Service and their employers will save a lot of time and resources in the onboarding process of new Public Officers. This win-win strategy is the key for success.

Second semester dates for the 2021-2022 IPS academic year

One of the major developments as from the 2021-2022 academic year at IPS has been the articulation of the IPS Academic Year into two semesters. This development meant the introduction of a second enrolment window for Public Officers interested in attending the Institute's scheduled courses and programmes during IPS's second semester which runs from February to June.

The application period for Semester B is from 3rd January 2022 till 11th February 2022. During the

application period, Public Officers can directly apply online for schedules courses from the IPS Prospectus website: http://www.ips-prospectus.gov.mt

IPS launches new binding standards for course participants and trainers

As part of its consolidation process, the Institute for the Public Services has introduced a new policy framework which is aimed at standardising its internal processes, regulating its general operations and improving the quality of the services offered by IPS.

In addition, IPS has also introduced Binding Standards which regulate the scope, manner and process through which Ministries and public entities request non-prospectus, customised training programmes and courses from IPS to meet their training and development requirements.

The binding standards can be downloaded from the Publications section of the IPS Website: https://publicservice.gov.mt/en/institute/Pages/Publications.aspx

Contributor Bios
for Academics

Professor Saviour Formosa, PhD (Hudd.)

Professor Saviour Formosa, PhD (Hudd.), is a spatio-temporal and criminology expert at the University of Malta and consultant to various departments and heads the hi-tech 3D SIntegraM Immersion Lab. His expertise is based on spatio-temporal analysis of environmental, social and physical relationships using spatial information systems. He is currently involved in the creation of virtual and immersive worlds as an investigative tool for social interactionism as a potential future scenario construct analysis that would affect the different age cohorts and how they interact with the societal mileau.

Mr Angelo Gafà

Mr Angelo Gafà was appointed Commissioner of the Malta Police Force in June 2020. He joined the Corps in 2003,appointed Inspector in 2004 and promoted to Superintendent in 2018. Gafà served within the Economic Crimes Squad and the Malta Security Service until December 2016 when he was appointed CEO of the Police Force. Mr Gafà holds a First Class Bachelor of Commerce (Honours) (Private and Public Sector Management) degree, a Master of Arts in Public Policy Leadership (Distinction), and a Master of Science in Security and Risk Management (Merit). He is a visiting lecturer within the Department of Criminology at the University of Malta's Faculty for Social Wellbeing.

Professor Charles Galdies

Professor Charles Galdies is a University of Malta lecturer with the Division of Environmental Management and Planning within the Institute of Earth Systems. He has received his Ph.D. in Remote Sensing and GIS from Durham University (UK) in 2005. Prof. Galdies was also the Permanent Representative of the Government of Malta with the World Meteorological Organisation. His expertise focuses on weather and climate, the application of remote sensing for coastal, benthic and terrestrial ecological mapping, as well as environmental data processing and analysis. He has provided consultancy to the Food and Agriculture Organisation, the European Commission, the International Union for the Conservation of Nature (IUCN) and to private companies related to ecology and policy formulation.

Steve Agius

Steve Agius works as Chief Operating Officer at Mater Dei Hospital. He is currently coordinating the COVID-19 national vaccination programme. He gained a first-class computing degree from the University of Greenwich (UK) followed by an MBA with Distinction in e-Business. He is currently pursuing a PhD in the use of data in strategic decision-making with the University of Malta in conjunction with Liverpool John Moores University. Steve is also a Senior Visiting Lecturer at the Faculty of Economics, Management and Accountancy at the University of Malta. He lectures

Social Media Strategy in the BCom program and has developed and lectures a module on Big Data Analytics for the MSc Strategic Management and Marketing degree programme. Steve currently sits on the board of Bank of Valletta and chairs the Information Technology Oversight Committee.

Professor Michael A. Borg

Professor Michael A. Borg is a clinical microbiologist by training, and heads the Department of Infection Control at Mater Dei Hospital in Malta and chairs the country's National Antibiotic Committee. He is also a past chair of the International Federation of Infection Control (IFIC) and has provided expert advice to the European Centre for Disease Control (ECDC) on the prevention & control of healthcare associated infections and the prudent use of antimicrobial agents in human medicine. Prof Borg read for his undergraduate degree at the University of Malta which he followed with an M.Sc in Microbiology from the University of London, U.K and a Ph.D from the University of Malta. He has been awarded fellowships by the Malta College of Pathologists, the Royal College of Pathologists (UK) and an Honorary Fellowship by the Faculty of Pathology of the Royal College of Physicians of Ireland.

Contributor Bios
for Students

Ramona Attard

Ramona Attard graduated with a Bachelor of Arts (Hons) in Inclusive Education. She is a Learning Support Educator in a primary state school. Ms Attard's main research focused on special educational needs and how parents can be better involved in their children's education. In her free time, she enjoys writing children's stories.

Dr David Baldacchino
PhD (Melit.)

Dr David Baldacchino PhD (Melit.) is a Senior Principal Pharmacist and the Responsible Person for the Central Procurement and Supplies Unit - the medicines wholesale dealing arm of the Ministry for Health, Malta. He has over 20 years' experience in the Maltese Public Sector, mostly in the pharmaceutical field, in the areas of quality assurance and tender evaluation. Also, he is a part-time lecturer at the University of Malta. His research interests focus on knowledge management, human resource management and development, organisational studies, evidence-based management and HR analytics.

Rosann Grech

Rosann Grech graduated with a Bachelor of Arts degree in Geography and Psychology and then a Higher Diploma in Psychology from the University of Malta. This was followed by a Master's degree in Leadership and Organisational Behaviour from Dublin City University. She is currently a Programme Coordinator with the Operations & Support Services Unit in a public entity within the Ministry for Education. She focuses on providing professional development and technical assistance to all frontlines working within the entity to ensure that all service users and their families are offered an excellent service. Ms. Grech research interest are children`s education and inclusion, positive psychology, and leadership skills.

Romina Haber

Romina Haber is a Childcare Centre Coordinator with a love for education and development. She has been working in this sector for the past 12 years after having graduated with a B.Psy (Hons.) degree in 2020. Her current role helped her become an avid team player with a keen interest in team dynamics and organisational behaviour. This led her to pursue an M.Sc. in Leadership and Behaviour, graduating in 2020.

Envisioning a National Climate Service for Malta

Charles Galdies PhD

Identifying climate services needs for public policy.

The link between public policy and climate change has never been as strong as it is now. From the most recent international climate change conferences in Paris, Madrid and Glasgow to emissions regulations, resilience and adaptation, national governments forge public policies aimed at managing the impacts of climate change on primary economic sectors. This is also valid locally where manufacturing, agriculture and energy are just three important sectors that are sensitive to a changing climate.

This short article describes the importance of basing our national public policies on factual information that reflects the real impact of a changing climate on our Maltese assets, and not just on an assumed, theoretical one. It aims to make public officials in the public sector aware of the limitations in the local infrastructure that deals with the documentation, archiving, provision and understanding of how physical climate parameters are changing over time and how these can be used by national authorities to redefine public policies accordingly so as to make them Malta specific. Without this knowledge there is a danger that public policies will be less effective or even counterproductive to a select number of our economic sectors, and ultimately to the quality of life of the Maltese people.

Background

The World Meteorological Organization (WMO) is a specialized agency of the United Nations, tasked with a very important mission, that is to foster international cooperation and coordination on matters related to the understanding of weather and climate and their linkages with Earth System components, and to the distribution of water resources.

After years of negotiation, WMO member states made a landmark decision at the latest World Meteorological Congress (Cg-Ext 2021) held last month. They in fact adopted a resolution making it mandatory for them to collect climatological information over their

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geographical jurisdictions and share it with other WMO members. This new regulation mandates all Member Countries of the WMO to locally collect certain key measurements that weather (and other environmental) orbiting satellites cannot such as air temperature, humidity, surface pressure, and wind information and share it with the wider meteorological community without delay.

Why is this deemed important? After all, in virtue of its nature, weather and climatic data knows no boundaries or artificial human constructs that divide the atmosphere like how we do with the oceans. Actually, WMO's policy related to data exchange has not been updated since 1995, and therefore was still based on the technological limitations and political dimensions that so far have restricted the proper collection and rapid sharing of climate data.

Importance of this new WMO regulation.

Activities related to weather and climate prediction can be used to illustrate this importance. Irrespective of whether we are doing weather or climate predictions, the starting line of both actions is dependent on accurate starting conditions of the state of the weather or climate and their interconnected components (cryosphere, biosphere, lithosphere, hydrosphere, anthroposphere). This is akin to a 100m dash (analogous to a short-term weather forecast for the Maltese islands) or a tougher 4x100m relay race (in the case of a 2100 climate projection of the world) – in both cases, the runners start at the same line, same conditions. Then it is up to their strength, technique, and stamina to give their best performance. Weather and climate models

also need to start from a realistic physical rendition of the starting point in order to produce a reasonably accurate forecast.

This brings us to the point that I wish to make, in that weather and climate phenomena are truly global, meaning that these computer models require in absolute terms information coming from the entire global atmosphere and all its related components. This requirement starts to falter for those countries that do not have the technical capacity to do so. At the same time, we find countries who do have such capability but are not ready to share the information that they have.

Malta's Position

How will this new regulation affect the local meteorological operations related to weather and climate observations? This question is very pertinent to Malta in view of its small land territory but huge search and rescue zone that extents from off the Tunisian coast to near Crete. As our 24/7 weather forecasters know very well, the weather observations that are needed for Malta's weather forecasts are instead taken from those observed by neighbouring countries where the weather is coming from on that particular day. To be fair, a substantial amount of information also comes from meteorological and environmental orbiting satellites that cover the entire globe; however, there are certain key measurements that have to be taken from the surface. Sea level pressure, which is an exceedingly important weather observation, is a case in point. Updating readers with Malta's situation is an important step that goes a long way. There are two main contentions here that I wish to raise in this article.

Malta's current Weather and Climate Service

Way back in 2001, a decision was taken by the Government of Malta to transfer the Meteorological Office from the then Civil Aviation Department to the Malta International Airport. This was part of the privatization process of the Malta International Airport (MIA) in early 2002, when Vienna airport, which is majority shareholder in a consortium, bought a 40% stake in MIA. However, this transfer was accompanied by an agreement to supply the general public with a basic set of weather-related services without any direct governmental financial compensation.

While this transfer initiated a series of urgently needed upgrading of the Meteorological Office, such as the installation of an expensive doppler weather radar, a network of automated weather stations and new 24/7 fully operational and computational premises, it severed the provision towards any future national requirements as far as new datasets and new weather services are concerned. Moreover, this transition also put into question whether a private company should facilitate Malta's financial obligations
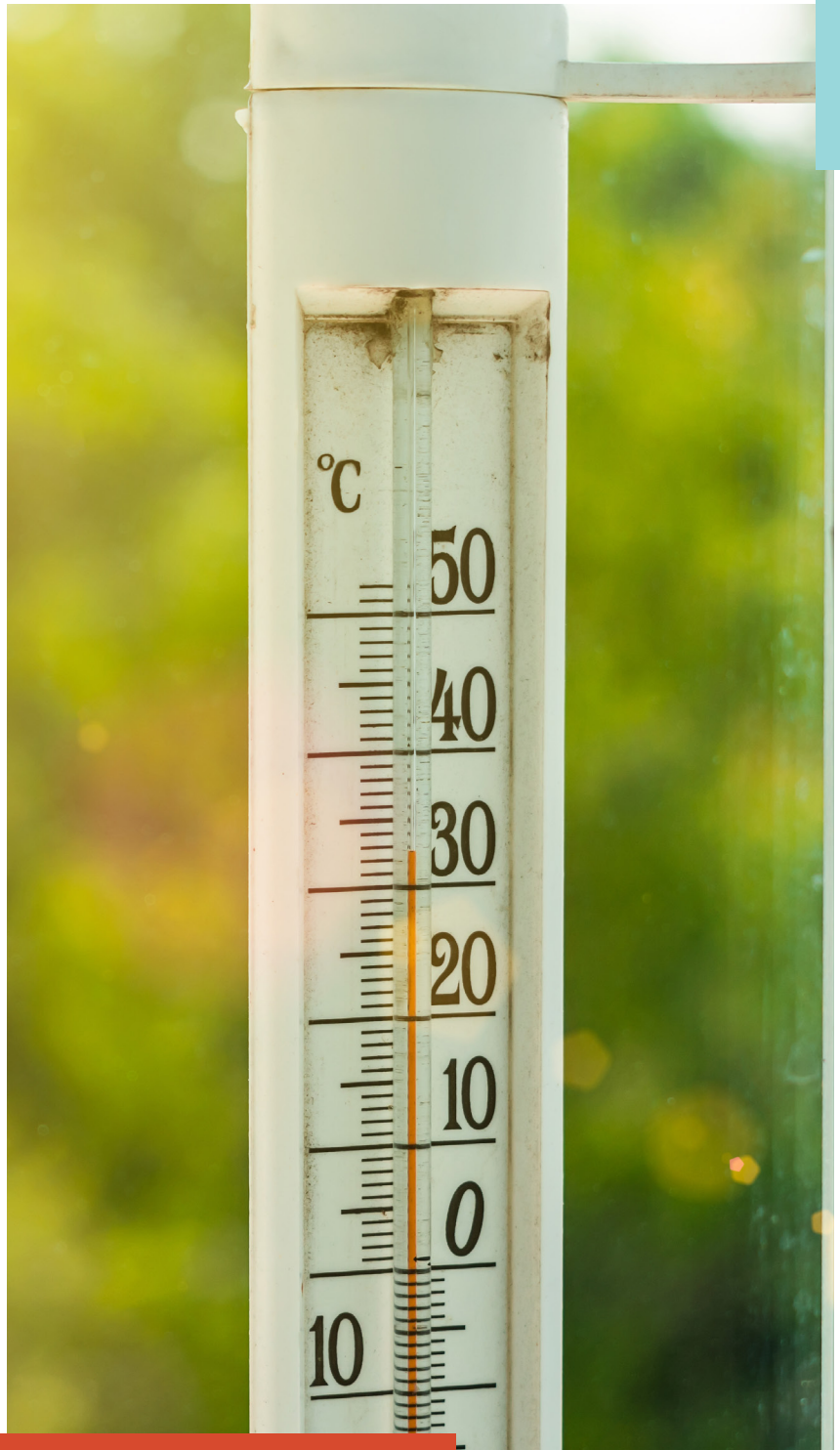
to continue being represented in the WMO. To my knowledge this matter seems to have been only recently resolved after almost a decade of governmental indecision. However, the other pertinent requirement, i.e. the provision of up-to date weather and climate services (which in truth, would require substantial unilateral technical and financial investments by the service provider) remains valid.

Very little direct access to free local climate and weather records

This brings me to the second point that I wish to raise. Information is power, and it is only natural to assume that the strength of any data provider, especially if coming from the private sector, diminishes whenever its core business is freely handed to third parties. Nowadays, there are many entities that are eager to use detailed weather and climate data in order to sustain both their operational activities and decisions concerning future investments that may be reliant on such information. Easy examples include the use of rapid and accurate weather and climate data for the operations of public and private entities engaged in the aviation, maritime, construction, land transport, environmental management, security and military, agriculture and fisheries, tourism, health, etc. The more you think about this the more impressed you become about how much weather and climate information pervades, maintains and stimulates the full functioning of current and emerging markets. As things stand, the way how users of this information request the data services of the Malta Meteorological Office is still very traditional.

Enriching our National Archives

Our National Archives have recently received more than 4MEur from European Structural and Investment Funds (2014-2020) aimed at protecting, developing and promoting public cultural and heritage assets. The mission of this entity is to preserve Malta's heritage, and I think it is high time that national authorities recognize Malta's written climate archive as a National Heritage that needs to be safeguarded for the current and

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Malta has one of the longest climate archives in Europe, ...

future generations in view of its national and global importance.

Malta has one of the longest climate archives in Europe, with official information dating back since 1922. This stems from the fact that the Maltese islands were deemed to be of high strategic value to the British fleet and hence the reason for the continuous weather observations since that time. It was only later in 1947 that the weather services were taken over by the Royal Air Force and transferred to the main military aerodrome at the time – Luqa airfield. During the war period, it was even transferred to Lascaris. However, since 1947, Malta's climatological station has never departed the airfield. This is indeed a good think to have since the climatological observations have been carried out more or less from the same location without it being exposed to new environmental conditions.

Having being previously administered by British meteorologists and then passed onto UK-trained Maltese meteorologists in the early 70s, the quality of weather observations and the way how this information

has been transcribed onto tens of Meteorological Registers is indeed impressive. In fact, before the advent of computer digitization at the Malta Meteorological Office to record the synoptic weather observations, manual transcription of detailed weather observations was done using traditional meteorological notation. This process has constituted a continuous snapshot of our local weather conditions for decades. This traditional approach was then terminated by 2007 after which such recording process was transformed into a fully digital one. This shift has of course its pros and cons, perhaps more of the former than the latter in view of the easy way to store, query and retrieve any subset of weather information that has been included in the digital database.

Now, our current climate service provider faces daily challenges when it comes to the safe archiving of this data. One big headache for any data repository is the assurance of data security. The Office must therefore ensure that every bit of Malta's digital climate data remains safe and at zero risk of access by cybercriminals.

In parallel, there is also the need to protect the 85-years old, paper-based meteorological archives of the Maltese islands, which constitute our sole National climate archive. This is why perhaps a copy (if not the original) should be housed within appropriate facilities such as those provided by the National Archives. If anything, this decision would lead to a full and faithful copy being available at another location.

Envisioning a National Climate Service

The increasing focus on the importance of weather and climate information for climate-resilient socio-economic development has led to a growing need by the international public policy community to develop national climate services. According to Vaughan and Dessai (2014), the aim of climate services is 'to provide people and organizations with timely, tailored climate-related knowledge and information that they can use to reduce climate-related losses and enhance benefits, including the

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protection of lives, livelihoods, and property'. Europe and elsewhere, this acceptance led to the establishment of effective national climate services for integration into planning, policy, and practice. Climateurope2 is the Europe-wide framework for climate services that is made up of relevant stakeholders (see climateeurope.eu). Malta's absence among its main participants, which include the likes of the Intergovernmental Panel on Climate Change (IPCC), the World Climate Research Programme (WCRP), and the European Centre for Medium Range Weather Forecasts (ECMWF), is indeed striking.

I strongly feel that a National Climate Service is urgently needed when considering Malta's current and future societal needs that are now being increasingly sustained through rapid digitalisation. The basic mission of such a Service could be the provision of climatic information to the public and private sector according to established data delivery and format protocols. Below is my take at some of the basic functions of this new service that are urgently needed for public policy work.

(a) The collection of climate data and provision of Essential Climate Variables (ECVs) would be an important first contribution by the proposed National Service. These products constitute the physical, chemical and biological information that can critically contribute to the characterization of our climate, in what way and how fast it is changing. ECVs provide the empirical evidence needed to understand and predict the evolution of our climate and can aptly guide our National mitigation and adaptation measures. They can also assist national authorities with their risk assessments and enable attribution of climate events to underlying causes. They can also be vital elements in Malta's periodic reporting to the UNFCCC.

(b) The National Service can also suggest and implement ways how to fill information gaps arising from missing variables that are not in the operational data observational stream of the Malta Meteorological Office. These include those that are relevant to the constant monitoring of Land (eg. soil moisture and groundwater volume change, etc), Atmosphere (eg. aerosols, upper profiles, etc) and Sea (eg. subsurface salinity, inorganic carbon, ocean acidification, etc) processes.

(c) Appropriate climate-reporting capability and responsibility towards the UNFCCC and the EC in view of its specific climate-related data collection, processing, delivery and archiving remits.

(d) The National Service can be a permanent discussion platform with Malta's primary stakeholders. So far, this link with stakeholders is very weak at a national level and stakeholder preference of the type of climate services is still unknown to this day. Delaying the formulation of an effective strategy in this respect can significantly push back the country's effective resilience against the rapid pace of climate change, to related extreme weather events, and ultimately to effective climate adaptation.

(e) On the basis of a series of consultation events with the major user needs of weather and climate data, the National Services could then identify appropriate entry points for targeting climate services in line with national priorities. The presence of bureaucratic/ technical bottlenecks can impede any successful climate change adaptation initiatives and climate resilient development planning (Eisenack et al., 2014) and therefore such bottlenecks must be quickly addressed and tackled by this new institution. In this manner, Malta's medium-term climate decision making can be facilitated and promoted. Based, on expert judgement regarding stakeholder preferences, the following functions can form additional core operations of the National Services.

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Articles by Academics

1. Support long-term plans based on short, medium and far climate projections tailored for the Maltese islands. Long-term projections can support new long-term investments, such as coastal defence and transportation projects;

2. Provide seasonal forecasts to inform the planning of sectors related to water and energy, agriculture, and disaster management;

3. Address issues of spatial and temporal scale of negative climate attributions on NACE sectors, including accessibility and credibility of climate information by taking note of policy planning cycles, optimize on timing and decrease in mismatch in time-frames;

4. Provision of cross-sectoral climate sensitivity, vulnerability and hazards to Malta's Economic Planning and Development (even extending it to climate attribution to our partner trading countries in view of our insularity and lack of primary resources). The continued absence of a National Climate Service tasked with the collection, processing and transforming climate information can only lead to partly blind (or half-baked) national policies that are devoid of the local context. In fact, the current climate information is viewed as inappropriate to the spatial scales required for local decision making.

5. Provides high quality and credible climate products that are sector-specific; a suitable format that would enable the confidence and willingness of local stakeholders to use this information for planning purposes;

6. Provides enough capability to disseminate early warning well in advance and to strengthen the link between disaster risk reduction and climate change adaptation as in government planning.

Conclusion

Nowadays, Malta has more than sixty international, national and sectoral policy documents relevant to the country's NACE sectors.

These are based on five pillars of economic growth and recovery from the Covid-19 pandemic, which are sustainable economic growth, good governance, education, infrastructural improvements, and carbon neutrality. Moving in parallel with these five pillars of growth is the need for baseline information that can fully inform the future investments aimed at providing a solid foundation in support of this growth within a climate change scenario. One can also link this need within the local and national context when it comes to research, innovation, resource management planning and training needs to make these five pillars more resilient to climate change where weather extremes are already the new norm (Hedegaard, 2021).

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Striving for the improbable through transformative means:
Morphing the Malta Police Force

Saviour Formosa, Angelo Gafà

Terms as transformation, reform and change posit very difficult paths towards structural renewal.

Such is highly evident in traversing the narrow, gravelly paths taken in the process to transform the Malta Police Force (MPF) into a dynamic, modern, proactive and community-centric exercise. Guided by an enterprise to push the improbable into a realistic doable endeavour has only been made possible through a focus towards a long-term structural change process, one that is cognizant of a past anchored in deeply entrenched practices. The latter pertain to an ingrained police culture characterised by bureaucratic traditional practices a top-heavy structure, failure to implement past reform attempts, routine crisis management and reactivity that was steadily approaching a gridlocked functionality. Old entities are reluctant to change and MPF is not an exception. However, change overcomes those that lag. Two separate reviews of the operations of the MPF carried out in 1996 (MSU Ltd., 1997) and 2015 (Formosa, 2015) respectively highlighted a conservative mentality, encumbered by an internal fear of change as opposed to a proactive approach.

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Articles by Academics

Note is made that law enforcement in Malta is mainly the responsibility of the Malta Police Force (MPF) which is one of the oldest police organisations in Europe, dating back to 1814 (Malta Police Force, 2021). Thus, the situation can only be understood through awareness that this is a relatively old entity with established deep roots.

The paper outlines the process employed by the authors to reach a pivotal point that pushed the entity towards change, both coming from diametrically opposite but intertwining life experiences. Hailing from academia and operations but driven by a strive to tackle crime through the taking of an operation form and morphing it into a functional operand: that of an effective and efficient police service to the community. The paths converged through a common drive to focus on research, past strategies, success and pain points and the vision to reach commonality in transforming the MPF into a flexible, efficient, data-driven, community-centric, outcome-focused organisation. This entailed internal reviews, employee input, political will, legislative change, EU funding and the engagement of external partners

tasked with drafting a five-year strategy eventually launched in September 2020.

One year post launch, the rumblings of change are snowballing into an effective set of gears targeting the future of the entity disbursed of the police culture that restricted change in such organisations (Holdaway, 2013). This is a move away from the dominant cultural effect on police culture (Azzopardi Cauchi, 2004; Demirkol & Nalla, 2019) towards one that "emphasizes the underlying values, beliefs, and attitudes of organizational members" (Fyfe et al., 1997, p. 160).

Criminological schools speak of deterrence, sanctioning and enforcement with the Urban Ecological approach integrating the spatial aspect of crime into the understanding of the offence and offender dynamic, themes so crucial to the effective implementation of police intervention. The father of modern policing, Sir Robert Peel's nine policing principles (Law Enforcement Action Partnership, 2021) and his insistence that a policing establishment can only work within a social contract theoretical approach is very valid in current society. This is due to

his argumentation that the police can only effect change through the trust and respect gained from the citizenry. The MPF cannot exist without its presence in the community, both as a security provider and as a safety guarantee as highlighted by Gafà (2008). The societal pillars that serve as social cohesion form the playground for effective policing in a desirable social capital scenario, where communities interact within political, religious, economic, family and educational circle. Compounded by the new technological worlds, policing has become ever more complex such that it requires constant interaction and input with the community building trust factors. This was also evidenced in a 2020 survey that registered a low 49% trust factor in the police (Martin, 2020).

The transformation goes beyond the internal structures but expands itself towards a holistic approach in the transformation of the social, natural and physical environments. The Police Force exists in the society it operates in thus its transformation directly affects and is affected by societal change (Hufnagel, 2015).

Championing for Change

The current transformation strategy can only be read through an understanding of what led to its creation, a past steeped in a lack of change ownership and implementation bottlenecks, towards one that has a concrete vision, effective champions, targeted deadlines and a consistent effort to ensure that the effort is brought to conclusion. This was enhanced by a Vision stating that "Our vision is for the community to trust us in ensuring a safe and secure society for everyone." This latter Vision established the baseline, away from the processes required to reach the aim, leaving such to the transformation's 3 outcomes, 11 strategic objectives, 49 strategic initiatives as established in the 2020 Strategy (Malta Police Force, 2020).

The rationale to change emanated from diverse studies that identified that in a scenario where the Police Force is facing a rapidly evolving society, new modes of criminality, a real-world/virtual world dynamic and

multi-dimensional requirements to tackle crime, the need to embark on a strategic approach to policing was deemed ever more urgent. Various reviews and studies were commissioned, most notably the 1997 organisational and management review task (MSU Ltd., 1997).

Irrespective of the purpose of these initiatives, implementation was lacking and recommendations were not taken up, whilst monitoring updates were not launched, which could in turn review why the processes were stalled or shelved.
The need to change the status quo was driven by a strive to modernise the Police Force that goes beyond structural/physical changes but also focuses on new forms of criminal activities, a rapid-return crime dynamic, new sentencing practices, technological impacts and the internationalization of criminality.

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This was by an imperative to inject changes where the force has an ethic and a drive to mitigate a process that ensures the stepping up of the fight against crime through proactive measures as against the inherent reactive processing.

Thus, it was imperative that two decades following the 1997 report, a focused strategy was set out and implemented across the entire force and its dependent functions, inclusive of education, community realities and a disciplined-civilian capacity balance.

Formosa's 2015 situational analysis report (Formosa, 2015), the 2015 Scoping document (Abela et al., 2015), the 2017 legislative changes, the Gafà Strategy presented during the Commissioner selection process (Gafà, 2020) and the 2020 Transformation Strategy (Malta Police Force, 2020) pushed the new effort to fruition, with the resultant changes being implemented as per the 2020-2025 set of outcomes, strategic objectives and related initiatives.

The process sought a strategy that was based on a bottom-up approach (Formosa, 2015; 2016), reversing a situation where the MPF was reviewed as suffering from a low level of public esteem, low morale and motivation, low retention rates, lack of resources, lack of intense recognised training and non-existent continuous professional development. The Gafà Strategy (2020) enhanced the tenets of the Transformation Strategy with major change pointers for change including a focused approach on the GRECO report (Council of Europe, 2019) that aimed at strengthening training programmes, measures towards integrity and professional ethics, transparency, internal transfers, parallel activities, communication, anti-fraud and corruption policy and standards of conduct. Thus the need to take an 'outside of the box' approach where the entire concept of recruitment, training, capacity, skills, retention, structure, operations, management and other processes were revisited stressing on communication, community-centric approaches and motivation.

These were achieved through a three-pronged triangulated approach:

• Review of past efforts

Three strategic documents were completed in decades past (MSU 1997; Malta Police Force, 1999; 2004). All failed due to lack of implementation of recommendations and no monitoring effected to review why initiatives were stalled or shelved. To kickstart the process, a series of internal and international surveys and missions were held in conjunction with the University of Malta and the Ministry for Home Affairs and National Security (MHAS) (Formosa, 2015; 2016).

Task results: Drafting of Strategy Scoping document as presented to the MHAS and Parliament. The result of the scoping exercise led to an aim to gain cognizance of the Malta Police Force and bring in change through transformation through an understanding of the strategic requirements for the Malta Police Force. This would then charge the process to move from a scoping document to an operational transformation.

• Legislative Changes

The effort was focused on changes to Chapter 164 (Police Act, 2017), the setting up of a Board of Governance, revisiting the roles of Policing and Corporate Functions as well as initiating the Strategic Change process.

Task results: Amendment in legislation, setting up a Board of Governance and the engagement of a CEO. The latter was tasked with remits in HR development, skills and needs auditing, finance and funding, acquisitions, public relations, industrial relations, Information technologies and other foresight actions. The Board of Governors was tasked with the development of the long-term vision, purpose and direction of the Force, the development of a long-term strategic document, advisership on any recommendation brought before it and the approval of key organisational policies.

• Seeking of EU backing for the transformation

Aware that the previous exercises led to a gradual or instant non-action, a decision was taken to engage international consultants through EU funding. Following an application submitted in October 2018, in early 2019 the MPF was successful in its submission for EU funding for a Police Transformation Strategy within the framework of the Structural Reform Support Programme (SRSP).

Task results: The consultant PricewaterhouseCoopers (PwC) brought in international experts and local strategists to draft the strategy in conjunction with the CEO and the Board of governors through an exercise where officers were engaged to initiate the ownership process. Strategy was drafted and launched on the 25th September 2021 (Malta Police Force, 2020).

The Strategic imperative

Following the procurement process conducted by the Structural Reform Support Service (SRSS) of the EU Commission (European Commission, 2021), whose mission is to 'provide support for the preparation and implementation of growth-enhancing administrative and structural reforms by mobilising EU funds and technical expertise', PwC was entrusted to carry out this project on behalf of the Commission, initiated in October 2019 and concluded in the third quarter 2020. The general objective of this project was to contribute to the modernisation of the MPF. The results targeted an increased strategic orientation of the MPF, better management of external dynamics and stakeholders, increased operational efficiency and effectiveness as well as the optimisation of internal structure and human resources management, including selection, career development and retention.

The Resultant 5-year strategy

The Transformation Strategy was formally launched on the 25th September 2020 and outlined a new Vision, Mission and a set of 3 outcomes, 11 strategic objectives, 49 strategic initiatives to be implemented between

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for the community to trust us in ensuring a safe and secure society for everyone.

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2020 and 2025. The main tenets were aware that governance is paramount but only if paralleled by a successful operational approach that is flexible, efficient and data-intelligence driven. Such can be achieved if the entity is community-centric, outcome-focused and modern. This pushes against the culture-ingrained reality and thrusts towards a new structure and mentality shift that transforms the current practices into one that is client-centered, delivers a service, is society-centered as against a self-serving Force-centred structure. It also strives to deliver a functional entity that is prepared for the short- and medium-terms and strategic approaches to modality shifts of society and crime.

Cognizant of the shifting societal modality and perceptions on crime and the MPF, the strategy ensconed as its driver a Mission "To provide a professional and trusted policing service to ensure safety and security in partnership with the community". This is based on a vision "for the community to trust us in ensuring a safe and secure society for everyone."

The Transformation Strategy sets three desired outcomes:

- Increased trust, confidence, legitimacy, and responsiveness externally from the perspective of the community, and internally from that of Malta Police officers and staff.

- Transformation of the police organisation into a flexible, efficient, data-driven, community-centric, outcome-focused, and modern Police Force; and

- Innovation and sustainment of positive changes resulting from reform through leadership and management practices that are both effective and efficient.

Implementation Process: A year later

With such ambitious targets, a change management process was initiated to aid the implementation of the diverse objectives and initiatives, split over thirteen projects tasked with operation strategy, digital policing, responsibility, offices, quality, internal audit, communication, IT, training, workforce strategy, recruitment and career, integrity and wellbeing. Such is managed by a dedicated transformation team, guided by the Commissioner of Police, the Director General and Deputy Commissioners, the Board of Governors, PwC guidance and encompasses a number of project leaders and change agents. Public attitude and employee engagement surveys were conducted to ensure an on-the-ground anchorage of change processing.

The Implementation within the first year tells its own story that when academia, research, a strategic mentality and a solid operational drive come together, the results show direction and a process to achieve. The results include adherence to the tenets of social contract theory, an urban ecology approach to crime mitigation and a managerial scope aimed at a leaner top management structure, a performance-based approach to deliverables, an intelligence-based drive and an ownership process. The Vision to push for trust through the launching and expansion of the National Crime Prevention Strategy (Formosa Pace, 2017) and its outcome community policing project rendered positive results, even in a COVID-19 driven year that stretched and stressed resources. These initiatives have already flicked the Eurobarometer survey trust rating from 49% in 2020 to 60% trust factor in 2021 (European Union, 2021). The MPF efforts to communicate clearly and consistently, strengthen accountability and ensure anti-corruption measures. These were shored by an Anti-Fraud and Corruption Policy (comprising an Integrity Officer, Break the Silence, Gifts, Gratuities & Hospitality Register), the setting up of a robust Internal Audit Department, a new Code of Ethics reflective of today's context, screening processes, introduction of body-worn cameras, changes in the law to enable drug testing within the Force, community policing and the introduction of KPIs that ensure that departmental heads are performance-oriented. The latter places emphasis on the distinction between leadership and management and is governed by leadership development programmes, identification of change agents, a Professional Standards Office and a horizontal movement policy, which elements are also guided through engagement with the Board of Governors.

Such is not achievable without a restructuring of the mechanisms that oil the process, those back-end services and drivers that push the change. The MPF set out the elements for a top-management restricting based on an effective operational plan, streamlining of the core police duties, engagement of civilians, an inclusive agenda, training courses, in-service training, recruit uptake and family-friendly measures that found mental health and wellbeing. This is backed by the outsourcing of non-essential activities, future-proof integrated records management system, a human resources management system, systems interoperability and the need to engage in increasingly digital and virtual environments.

Conclusion

Reforming or better Transforming an entity cannot be carried out through kneejerk, management by crisis hiccups, but through a long-term generational change management process that allows for low-hanging fruit harvesting that encourages drive and motivation, whilst reaping on the ground benefits in interim periods through structured deliverables and trust measurements.

The Malta Police Force, as engaged in a new structural change process has taken the first steps to traverse the road less travelled in previous iterations. The pivotal coalescence between the operational drive, the academic imperative, a target to professionalise the MPF and crucially the engagement with the community serve as a constant reminder that there is no way back.

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Healthcare Management during COVID-19: Insights from an acute hospital
Lessons Learned from the Pandemic

Steve Agius, Michael Borg

On 31st December 2019, Chinese Health Officials reported a cluster of 41 patients with a novel pneumonia (European Centre for Disease Prevention and Control, 2020). Six days later, the country's scientists had already determined its cause to be a new type of coronavirus which the World Health Organisation officially named SARS-CoV-2 and the disease as "COVID-19".

On March 7th, 2020, Malta reported the first case of COVID-19 in an Italian girl returning to Malta. Three days later, the government announced a travel suspension with Italy and quarantine for all returning travellers (Times of Malta, 2020). As of 7th November 2021, COVID-19 had killed more than 5 million people around the world, with more than 248 million confirmed cases across 213 different countries (WHO, 2021). An eventful two years brought many changes in almost every aspect of our lives, from the ways we interact, work, and socialise. COVID-19 has 'spread like wildfire' and presented unprecedented challenges to every single industry around the world especially healthcare (Kumar et al., 2020).

Healthcare systems have probably faced the most severe test from such a virulent and deadly illness and, as the outbreak continues to spread, this pandemic will permanently alter such systems like never before. As another wave of infections grips European and daily new cases continue to rise, the pandemic has pushed some healthcare systems to the verge of collapse with many hospitals struggling to maintain standards of care. Others have demonstrated resilience due to their capability to adopt an innovative mindset since the start of the pandemic by quickly responding with outside-the-box solutions.

Thanks to strict containment measures and early triggers of hospital surge capacity plans, Malta has successfully managed to reduce the strain on its healthcare system and accommodate the sudden increase in demand while maintaining care standards and continue to deliver high-quality patient care even during times of rapidly surging COVID-19 cases. For Mater Dei Hospital, the only general acute teaching hospital in Malta, it was a year of great transformation and immense change. The COVID-19 pandemic dramatically accelerated many changes in the hospital's ecosystem especially in the adoption of digital care options.

Surge capacity, especially in intensive care, was increased significantly. High-Efficiency Particulate Absorbing (HEPA) filters were installed in critical areas of the hospital where airborne transmission could take place. Additionally, the healthcare system has used more Personal Protection Equipment (PPEs) than we ever imagined and redefined processes at lightning speed. Mater Dei Hospital converted non-clinical areas such as the medical library, lecture and seminar rooms and staff canteen into temporary wards. The latter underwent structural changes and after three weeks of intense work, as part of

the preparedness drill, received the first patients. The hospital established an operational infection prevention and control programme to minimize the risk of transmission of healthcare-associated infection to patients, hospital staff and visitors. Amongst the different training programmes, all clinical staff were trained on the use of PPE (donning and doffing). As part of the preparedness plan, the hospital created clinical pathways outlining clear recommendations, processes and timeframes for the management of specific medical conditions or interventions, and a Rapid

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Response Team to cater for logistics and management of supplies, including equipment, pharmaceuticals and consumables. The aim of this holistic plan was to significantly increase the number of ventilators, monitors, ancillary equipment, PPEs and hand-sanitising supplies. The hospital also introduced telehealth to cater for outpatient services, keeping patients and health providers safe during the pandemic without the need for them to go out of their homes.

Simultaneously, an ad hoc 'Incident Control Group (ICG)' was established to allow rapid response to newly developing COVID-19 scenarios and to establish interventions and contingency plans for each scenario. To understand and anticipate demand on the healthcare services, the team worked with real-time and reliable knowledge dashboards that analyse the COVID-19 lifecycle; how the disease is spreading, where it might spread next and how it may potentially affect the core services of the hospital. This data-driven approach enabled the team to predict potential break-even points that could induce a strain upon the hospital and identify which interventions were needed to mitigate the crisis and, more crucially, when to activate the various action plans. These dashboards gave the hospital real-time and accurate visibility of key metrics such as current bed occupancy levels broken down by general beds and critical care, activity at A&E departments as well as current waiting times.

Although the pressures from COVID-19 were particularly felt at the country's only tertiary care institution, other entities were also actively involved in the COVID-19 response. Secondary care facilities, including Gozo General Hospital and Mount Carmel Hospital, needed to establish management pathways to safely care for COVID-19 admissions. Similarly, primary care centres had to find the correct balance to identify cases that required on site assessment and care, as opposed to those who could be managed by telemedicine. Institutions for the elderly, such as St Vincent de Paul Long Term Care Facility and Karin Grech Rehabilitation Hospital, faced critical challenges, as highlighted by so many outbreaks and deaths in nursing homes in Europe and the United States. The fact that they managed to generally avoid such situations locally was testament to the policies they introduced to minimise the risk of cross transmission between residents and/or staff. Above all, COVID-19 was a massive burden on the public health authorities who not only needed to spearhead national interventions to control the pandemic but faced often unsurmountable odds in trying to undertake contact tracing and quarantine/isolation, especially when hundreds of new cases were being reported at the peak of the pandemic in March 2021.

Truly, this was a year of rapid adjustments. The comprehensive strategy and multi-dimensional approach have delivered results within a relatively short timeframe and have prepared the healthcare system to deal with the coronavirus pandemic. Vaccines are playing a critical role, but we are not out of the woods yet.

The next pandemic could truly be just around the corner, but the lessons learnt from COVID-19 will stand us well to be better prepared next time.

What does the future hold for healthcare?

The COVID-19 pandemic is accelerating some key emerging trends; and in the process shaping the future of healthcare with the objective of enhancing care quality and patient experience while reducing costs (Nogueira, 2020).

The emergence of this pandemic has prompted calls for a dramatic scaling up of healthcare Disaster Readiness Plans (DRPs). Most of the healthcare infrastructures were found not to be at the necessary level to meet the challenges of this pandemic and were short of key resources such as ventilators, oxygen concentrators as well as the workforce required to treat thousands of new COVID-19 cases per day. Governments need to establish robust plans that can prepare them for future outbreaks and make their hospitals more resilient and provide readiness for the 'future unknown.'

COVID-19 has seen a surge in acutely ill patients requiring high level hospitalization and close monitoring. Hospitals post the COVID era will need to ensure that enough ICU beds are available for patients requiring organ support such as mechanical ventilation and renal replacement therapy whilst patients who would simply need close monitoring would be cared for within conventional wards while benefitting from smart and unremitting monitoring. This format will help to improve patient safety and quality of hospital-care without dramatically increase the number of ICU beds and associated costs.

Moreover, COVID-19 has taught us the importance of infection control and the prevention of cross-infection. Hospitals post the COVID era will shift from the traditional wards to single rooms with adequate ventilation. The sourcing of personal protective equipment such as masks, gloves etc was a major challenge, especially in the beginning of the pandemic when China was closed for business. Sufficient stockpiles of these items must be retained to ensure that hospitals have the ability to rapidly switch to 'pandemic mode' and still maintain safe environments for the healthcare professionals to work in.

Articles by Academics

The growth of improved technologies, both in terms of inter-office communication and patient treatment will bring huge benefits to the future of healthcare. Artificial Intelligence (AI) to detect diseases, such as cancer, more accurately and in their early stages will continue to augment clinicians in delivering empathetic and respectful care. Big data analytics will offer great advantages in enhanced clinical decision-support and personalised treatment. Telemedicine, on the other hand, will enable people to get immediate care from the comfort of their homes whilst the Internet of Things (IoT) will provide better patient monitoring and care. During the pandemic IoT enabled devices and applications were used to lower the possible spread of COVID-19 to others by early diagnosis, monitoring patients, and practicing defined protocols after patient recovery (Nasajpour et al., 2020).

In the fight against COVID-19, there has been many information gaps undermining international collaboration in health research at a time when the world needed it most. In a post-COVID era, there will be the need to promote more openness in access to data, to outcomes of research and to research infrastructure to enable quick visibility of outbreaks and

spread of pandemics. International collaboration in scientific research should become a normal practice in addressing global challenges.

Frontline healthcare workers along with many essential workers, have demonstrated remarkable courage, selfless sacrifice, and exemplary commitment to care for each other and every patient during the pandemic. Their resilience in caring for COVID-19 patients created many of the unforgettable images from the crisis potentially at significant cost to their own health and wellbeing. Since the start of the pandemic, numerous scientific papers have attributed increased post-traumatic stress, anxiety, depression, and burnout on the healthcare work force (Magnavita et al., 2021). COVID-19 will not be the last large-scale public health threat of the 21st century and therefore more supportive policies that ensure healthcare can meet these demands and be adequately prepared for the delivery system of tomorrow are required. More focus on programmes and measures to address the psychological risks to healthcare workers will be key in building a more resilient workforce (Lung, 2009).

The tremendous pressure on healthcare institutions over the past two years has proven to be a game-changer. Change can be challenging, but the ultimate return will be one that places healthcare systems in the optimum position to meet the challenges of the 21st century by raising the quality of care and prepare our healthcare systems to be ready for the next pandemic.

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An Exploratory Study on Knowledge Management (KM) in the Maltese Pharmaceutical Sector

David Baldacchino

Keywords:

Pharmaceutical Sector

Knowledge Management (KM)

KM Enablers

KM Processes

Organisational Effectiveness

Introduction

The pharmaceutical sector can be considered as a key player in the world's economy. This is also the case for Malta's economy where the pharmaceutical sector is considered an important business sector. Till October 2021, the Maltese Pharmaceutical Sector exported €353 million worth of pharmaceutical products making up approximately 13% of total exports for Malta (National Statistics Office, 2021).

Nowadays we hear a lot about 'a knowledge-based economy'. Globalisation has brought an organisation's knowledge assets into focus - knowledge is being more and more recognised as a valued asset in competitive environments and "is increasingly at the heart of modern enterprises" (Ho et al., 2014, p. 734). Therefore, in these uncertain and challenging times we are living in, organisations, in particular, knowledge intensive organisations such as those operating in the pharmaceutical sector must make the best possible use of their knowledge-based activities in order to maintain a competitive advantage (Valaei et al., 2017). Knowledge Management (KM) has been recognised as providing the key to organisations to attain organisational effectiveness (or related aspects such as organisational performance) by making the best use of their knowledge resources (Zack et al., 2009)

Literature review

Researchers have voiced concerns on the lack of studies reporting the impact of KM on organisational performance. Heisig et al. (2016) emphasise this worrying state of affairs by stating that "this issue is considered as the prime gap in the existing knowledge on KM" (p. 1170). KM is about organising people, processes and technology in order to get the most out of an organisation's knowledge resources and therefore enhancing organisational performance and effectiveness. Thus, many researchers in the KM field have stressed the importance of evaluating and exploring KM enablers, KM processes and organisational effectiveness in order to understand the successes and failures of any KM initiatives undertaken by an organisation (Lee, 2017; Singh, 2018).

KM enablers such as IT support, organisational strategy, organisational structure (formalisation and centralisation), organisational culture (trust, collaboration and learning), intrinsic rewards, people skills and leadership are "critical factors that put KM concepts into practice in order to achieve KM effectiveness" (Ho, 2009, p. 101). KM processes such as knowledge creation, knowledge application, knowledge sharing and knowledge protection are considered as core processes that facilitate KM and thus help an organisation to produce valuable knowledge and to leverage knowledge assets (Singh, 2018). Organisational effectiveness is "the degree to which an organization realizes its goals" (Daft, 1995 p. 98).

This state of affairs in the KM field has provided the impetus for this study coupled with the fact that research on KM in the Maltese Pharmaceutical Sector is practically non-existent.

Research Questions

In order to study the state of affairs regarding KM in the Maltese Pharmaceutical Sector, the following five research questions were explored:

1. *What is the uptake level of KM initiatives in the Maltese Pharmaceutical Sector? Is there a focused KM strategy as part of the organisational business strategy?*

2. *What is the status of KM enablers in the Maltese Pharmaceutical Sector? Are they perceived important in promoting KM initiatives?*

3. *Is the Maltese Pharmaceutical Sector making the most of its knowledge assets? Are these knowledge assets being adequately protected?*

4. *Are the effects of initiatives geared towards improving organisational effectiveness being measured?*

5. *Is KM perceived to have a future role in the Maltese Pharmaceutical Sector?*

Method

20 structured interviews were carried out. The participants were 8 females and 12 males, and the age range was from 34 to 50 years with an average age of 43.5 years (SD = 3.99 years). The number of years working in the pharmaceutical sector ranged from 8 to 26 years with an average of 19.8 years (SD = 5.80 years). The number of years employed with their current organisation ranged from 2 to 24 years with an average of 9.9 years (SD = 7.28 years).

Template analysis was used to organise data and extract themes according to their relevance to the research questions described above. Template analysis allows flexibility in the coding structure, format and style of the template produced (Brooks et al., 2015). The Final Template for the structured interviews is reproduced below.

1. Uptake level of KM and focused KM strategy

1. **Understanding of the term KM**
   1. Explicit knowledge within the organisation
   2. Tacit knowledge within people
   3. KM processes
   4. Linking People, IT, KM processes and organisational effectiveness

2. Status and perceived importance of KM enablers in the Maltese Pharmaceutical Sector

1. **IT support**
   1. Adequate hardware support
   2. Tailor made software packages
   3. Timely and adequate IT personnel support

2. **Learning**
   1. Mentoring/internal training
   2. External training

3. **Trust and Collaboration**
   1. Relationships between employees, management and organisations
   2. Trust and collaboration going hand in hand

4. **Formalisation and Centralisation**
   1. Importance of rules and regulations for the pharmaceutical sector
   2. Balance between decentralisation and centralisation of authority

5. **Intrinsic Rewards**
   1. Double-edged sword?
   2. Official vs unofficial use of intrinsic rewards by HR

6. **People skills**
   1. Matching skills with tasks assigned to employees

7. **Transformational Leadership**
   1. Characteristics of leaders (charismatic; inspirational; considerate)

3. Utilisation and protection of organisation's knowledge assets

1. **Best possible utilisation of knowledge assets**
2. **Knowledge organisation**
3. **Protecting knowledge assets**

4. Measuring initiatives geared at improving organisational effectiveness

1. **Measurement of outcomes of initiatives geared at improving effectiveness**

5. Perceived future role of KM

1. **Future of KM in the Pharmaceutical Sector?**

Figure 1 - Final template construed from the structured interview data

Results

In order to provide answers for research question 1, interviewees were explicitly asked about any **KM initiatives currently being undertaken by their organisation**. Most of the participants (16) were hesitant at first but then they either replied that no 'official' KM initiatives were undertaken by their organisation or if any 'initiatives' were taken, these were certainly not proposed as KM initiatives by their organisation. On introducing a simple definition of KM, the participants were then able to identify initiatives taken by their organisation that although related to KM, were not described as such by the organisation. Such initiatives included IT initiatives related to knowledge repositories, initiatives related to KM processes and initiatives aimed at tapping the tacit knowledge of the employee. Participants were then asked whether a **focused KM strategy was part of the business strategy** of their organisation. To this question, the participants replied with a blunt 'No'

In order to explore research question 2, participants were asked about various KM enablers namely: **IT Support**, Learning, Trust and Collaboration, Formalisation and Centralisation, Intrinsic Rewards, People skills and Transformational Leadership. For IT Support, the participants had some reservations with regards to IT personnel support. They were not happy with the software support, mostly the provision of tailor-made software packages specifically customised for their day-to-day work requirements.

With regards to **Learning**, the majority (13) agreed that some form of mentoring was done but expressed some concerns on this, namely that sometimes work pressure places mentoring of new recruits on the back burner. Also, some participants wanted to see a more structured training program in place since most of the mentoring is done 'out of goodwill' without any formal strategy. With regards to external training, although most

of the participants (13) acknowledged that this was offered, they complained that most of the training offered was not tailor made for their needs and that training abroad was rarely offered.

For **Trust and Collaboration**, all the participants agreed that lack of trust/collaboration is a big barrier to any KM initiatives. Most of the participants (16) agreed that the most difficult to get is trust between different departments and at inter-organisational level. Participants were also keen to point out that it is important that management instils a culture of trust in the organisation so as employees feel trusted by that organisation. Lack of trust could lead to knowledge hoarding and to difficult work collaborations.

When asked about **Formalisation and Centralisation**, all the participants agreed that formalisation – having set rules, regulations and procedures and striving to follow them is vital to success in the pharmaceutical sector since this is a highly regularised sector with numerous rules and regulations tied to upholding quality when dealing with pharmaceuticals. The participants did not agree with having a centralised organisation but believed that a balance between centralisation and decentralisation is a must for a healthy organisation. Participants claimed that policy, strategy and vision of the organisation must be handled by centralised authority whereas day to day operations, professional decisions and micromanagement in general should be decentralised so as not to stifle creativity and efficiency.

The participants agreed that **Intrinsic Rewards** would promote KM by incentivising employees to share

their knowledge. On the issue of official vs unofficial introduction of intrinsic rewards by HR of their organisation, the majority of the participants (18) responded that these were not officially in place and due to the subjective nature of intrinsic rewards, they had reservations on their introduction as an official policy, stating that this could act as a double-edged sword where praising someone officially might cause division amongst employees due to envy.

When asked about **People skills**, the majority of the participants (14) thought that their organisation was not making its utmost to match the skills of the employees with the tasks assigned to them. The reasons cited by the participants were a lack of skill profiling by their Human Resources department, recruiting people 'just to fill the vacancy' without proper screening at interview stage and a lack of a properly defined skill requirement structure.

The final KM enabler discussed was **Transformational Leadership**. On asking about the characteristics of their leaders, most of the participants confirmed that their top management was charismatic, inspirational and considerate. Only a few participants (5) considered their top management as not considerate. The participants however acknowledged the fact that the pressures of work could be responsible for this lack of consideration.

In tackling research question 3, participants were asked if their organisation makes the **best possible use of knowledge assets**. The participants wanted to see an improvement on this, mostly by tapping more the

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innovators who like to look at the business from a different perspective and warriors who aren't afraid to constantly challenge conventional wisdom.

knowledge within people and improving knowledge sharing/dissemination which are very important for knowledge creation. The participants were also asked if **knowledge resources were kept updated and accessible.** Many participants (12) suggested that the enrolment of a knowledge officer would be of an asset to their organisation as there would finally be someone dedicated to the upkeep of the organisation's knowledge resources. Finally, the participants were asked about how their organisation goes about **protecting knowledge assets.** The participants were satisfied with the level of knowledge protection provided by their organisation mostly through a robust IT system. The only reserve that some participants had was that they would like their organisation to emphasise more promotion of knowledge protection amongst employees

To provide an answer for research question 4, the participants were asked if their organisation performed **measurement of the outcomes of initiatives taken to improve effectiveness.** Half of the interviewees (10) responded that they have some form of metrics in place. The other half of the interviewees confirmed that they do not have any form of metrics in place and that they would like to see them introduced by their organisation.

Is there a **future role for KM in the Pharmaceutical Sector?** - This question was specifically asked to address the final research question. All the participants enthusiastically replied that they felt KM has a future and that they wished their organisations invested more in KM in the next five years. The participants wished that top management was made more aware of KM so as KM strategies could be synched with the business strategy of their organisation.

Recommendations

From the results above, the following recommendations can be garnered:

- Management could help promote an official KM strategy that caters for codification (e.g., organise and store knowledge in knowledge repositories/ databases for easy retrieval) and personalisation (e.g., shadowing/mentoring initiatives; external training) knowledge strategies that are in line with the business/competitive strategy in order to create a sustained competitive advantage and increased effectiveness.

- Emphasis needs to be made on providing more responsive IT personnel support and customised software for the day-to-day work requirements of the employees.

- This study has found that metrics are lacking or boil down mainly to simple financial metrics. It is therefore important that top management introduces such metrics (e.g., knowledge stock, flow and utilisation indicators; patent-based performance metrics; intellectual capital metrics) that would allow new knowledge initiatives, which can be very expensive, to be gauged so as it can be determined whether they are contributing or not to an increase in the effectiveness of the organisation.

- Managers need to establish a proper mentoring/ shadowing programme aimed at preventing loss of tacit knowledge and experience. Management could also provide more opportunities for employees to be exposed to training abroad together with locally provided tailor made specialised (in-house and external) training in an attempt to meet the exigencies of the employees.

- It is recommendable that management praises and recognises employees for contributing to dissemination of knowledge within the organisation. Having said this, management must use caution when implementing intrinsic rewards officially since this might cause discern amongst employees within the same organisation due to envy.

- Leaders must try their best to be highly considerate towards the employees' needs and also strive to find ways of stimulating employee creativity when tackling and solving problems. It is imperative for organisations to recruit leaders with the skills, attributes and capabilities needed to be transformational leaders. As Neal (2016) puts it, such leaders should be "innovators who like to look at the business from a different perspective and warriors who aren't afraid to constantly challenge conventional wisdom"

Conclusion

Globalisation and the knowledge economy have increased the pressure on knowledge intensive sectors to remain competitive. The leverage of an organisation's knowledge and therefore the role of KM have taken centre stage for modern management.

In my career as a pharmacist, spanning over twenty years, and where I have occupied important managerial positions in different pharmaceutical areas such as procurement, wholesale dealing and distribution of medicinal products, I have witnessed, on several occasions, problems associated with the leverage of knowledge. These problems were always to the detriment of the quality and effectiveness of the service to our patients.

I hope that through this study, besides contributing to the KM domain in general, I have also contributed to the Maltese Pharmaceutical Sector by providing insights to policy makers and stakeholders on how to better manage their knowledge assets thus helping organisations in the Maltese Pharmaceutical Sector to reach their financial targets, and ultimately the goal of:

'Delivering a pristine pharmaceutical service to our Maltese and Gozitan patients'

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Shaping Perceptions

Investigating Employer Branding, Intention to Join and the mediating effects of Anticipatory Psychological Contract

Romina Haber

Main points of the literature

As a micro-state in the European Union, Malta has seen a drastic change in its labour market in recent years. Malta has seen an increase in the availability of work with as many as 25 new companies being registered on a daily basis (Anastasi, 2019). Employment rates have shot up, particularly amongst females (National Statistics Office, 2018). Furthermore, the amount of foreign nationals working in Malta has reached 44,564 persons at the end of 2017 when compared with a mere 4,000 workers in 2002 (Jobsplus, 2017). However, this has not been enough to fulfil the overwhelming demand for employees. Faced with such fierce competition, employers need to resort to ways which can secure the best talent available. One such way is to invest in good employer branding.

A company's brand is one of its most important assets. Essentially, a brand is a seller's assurance and commitment to consistently deliver the same quality service or product over time while setting it apart from its competitors. It further helps to emphasise the unique tangible and intangible attributes of the product or service it is representing (Edwards, 2009). Acting as an information collecting tool, brand associations consist

of any information stored in memory that serve to differentiate and expand on the brand (Alshathry et al., 2017; Samsita & Suki, 2015). Another important asset of a company is its human capital. It is therefore not surprising that companies have started to use the idea of a brand in order to put forward the benefits of working for that employer and thus, putting the company in a better position to attract and retain employees. Much like a company's brand, the idea behind an employer brand is to promote the unique qualities, offerings and advantages of working with that same employer or as, Ambler and Barrow (1996, p. 187) define, it "the package of functional, economic and psychological

benefits provided by employment and identified with the employing company". Employer brand is tactically used to distinguish an employer from its competitors, thus employer branding is the process by which HR practices put at the forefront and communicate both within the company (with current employees) and outside of it (to potential employees), the employer's image and identity that are different from its competitors (Backhaus & Tikoo, 2004).

Just as brands are seen as promises about the characteristics of a product, employer branding is the process by which an employer makes promises on the employment relationship. These promises and resultant expectations form

the basis of the psychological contract (Backhaus & Tikoo, 2004). Psychological contracts are made up of subjective beliefs relating to the exchange agreement in an employment relationship (Rousseau, 1998). This implies a relationship between an employee and employer where mutual reciprocity is demanded and expected.

During job-searching, job-seekers will look out for information and signals in order to gain knowledge of what it would be like to work with a particular employer. Brand associations are formed when external information about a brand is linked to internal emotions evoked by that brand, the process

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of which creates brand knowledge (Thellefsen & Sørensen, 2015). These cognitive processes will form the basis of the anticipatory psychological contract (Eilam-Shamir & Yaakobi, 2014; Rousseau, 2001) that are shaped and further developed through the interplay of both organisational and individual factors (De Vos et al., 2009). Unlike a legal, written contract, the APC is based on mutual expectations and emphasises the employment relationship (Rousseau, 2001). The stronger the associations are, the greater the probability of the employer being placed into the consideration set of job-seekers (Samsita & Suki, 2015) and is more likely to generate the intentions to join (Collins & Stevens, 2002). It is therefore paramount for employers to understand what shapes the APC in order to be in a better position to attract, manage and retain new talent.

To date, research into the link between the employer brand and APC has been rather limited. Though the literature suggests that a relationship can exist that effects intentions to join, the empirical research is somewhat lacking. Therefore, this research study aimed to increase the knowledge in the area of interest and sought to explore the relationship between employer branding, anticipatory psychological contract and intentions to join. The research aimed to provide insight into the following questions: What is the relationship between employer branding and anticipatory psychological contract on intentions to join amongst final year degree students in Malta? To what extent does employer branding shape the anticipatory psychological contract? And to what extent does anticipatory psychological contract mediate the relationship between employer branding and intentions to join?

Methodology

The main focus of this research was to assess the relationship between employer branding, anticipatory psychological contract (APC) and intent to join. The model presented in fig.1 below represents the direct, indirect, mediating and moderating hypothesised effects of the variables in question, namely:

- A direct effect (path c) between the independent variable (Employer Branding) and the dependent variable (Intention to Join).

- Direct effects between Employer Branding and APC and between APC and Intention to Join, being represented as path a and path b respectively.

- A mediating effect was further hypothesised, where it was hypothesised that APC will mediate the relationship between Employer Branding and Intention to Join thus creating an indirect effect (path c') between the independent variable and the dependent variable.

- Individual Characteristics, namely age and work experience, moderate the relationship between Employer Branding and APC. Specifically, a moderated mediation was hypothesised, where the mediating process responsible for the effect of employer branding on intention to join depends on the value of the moderating variables (i.e. age and work experience).
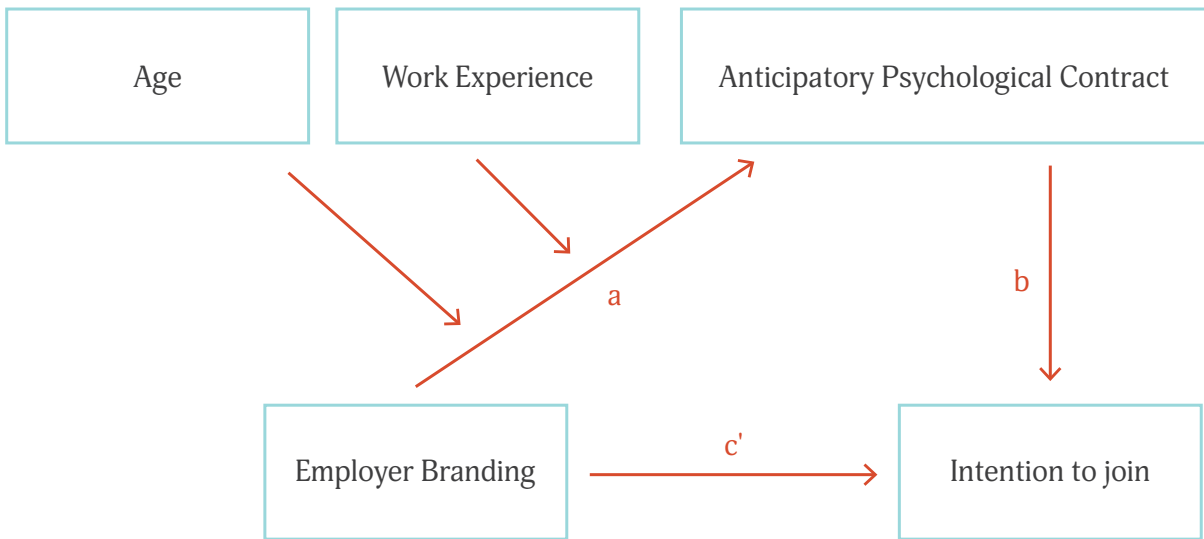
Figure 1 - Proposed Model

The main interest of this study was to identify patterns of association between the variables, therefore a cross-sectional design was implemented. A quantitative strategy was adopted to obtain quantifiable data at a single point in time from a large number of participants (Bryman, 2012).

Participants

The data was collected from students who are in their final year to obtain their first or masters' degree in finance, business, accountancy, IT and communications and legal fields. A total of 3,795 surveys have been distributed in all. 90 responses were collected, representing a very low response rate of 0.02. Of these, 55 had to be discarded as they had less than 50% completed in one or more of the measures. Therefore, the final sample was of 35 responses.

Procedure

The surveys were distributed via email including a brief overview of the research study, a link to the questionnaire and instructions. Students were asked to review the information given of either one of the companies before continuing the survey. Each student was assigned to either one of two consulting companies: Deloitte and Zeta.

Measures

Three scales already validated and available in the literature were used to test for the different variables in this study: EmpAt scale (Berthon et al., 2005); Employer inducements and Employee contributions subscales for APC (De Vos et al., 2003). This and Intention to Pursue scale (Highhouse et al., 2003).

Results

The findings provide preliminary support for the hypothesised relationships. Employer Branding was found to be positively correlated with Intention to Join, Employer Branding was positively correlated with Anticipatory Psychological Contract and Anticipatory Psychological Contract was positively correlated to Intention to Join.

Table 4.2 Correlation Matrix amongst the variables

	Employer Attractiveness	APC	Intent to Join	Work experience	Age
Employer Attractiveness	—				
APC	0.521 **	—			
Intent to Join	0.551 ***	0.670 ***	—		
Work experience	0.258	0.160	0.073	—	
Age	0.255	0.109	-0.018	0.818 ***	—

Note. * $p < .05$, ** $p < .01$, *** $p < .001$

Hypothesis Testing
Main effects. Linear regression was used to test for hypotheses 1 to 3 and all the main direct effects were found to be positively correlated and, in the direction, anticipated. Therefore, H1 − H3 have all been supported. Consequently, the requirements for mediation to take place have been met.

Mediating effects

Hypothesis 4 predicted that APC will mediate the relationship between employer branding and intent to join. To test this hypothesis, the four steps suggested by Baron and Kenny (1986) to test for mediation was followed, combined with the resampling method of bootstrapping. As is recommended for a possible mediation to exist, all direct effects of path c, path a and path b must be significant. The requirements for the mediation effect have been met since H1 – path c, H2 – path a and H3 – path b were all found to be significant.

APC was then incorporated into the model to test for mediating effects as per step 4. As evidenced in Table 4.3 below, mediation was not supported (β =0.25; z =1.41 p = 0.159). The bootstrapping method further confirmed this result. This means that when factoring in APC as a mediator, the direct effect of Employer Branding on Intention to Join remained significant though decreasing (p < .001 to p=0.027). Additionally, the indirect effect through APC was not significant (p=0.159) therefore, partial mediation could not be supported either.

Tests of moderated mediation

The proposed moderators – Age and Work Experience, were integrated in the model to test for an overall moderated mediation proposed in H5 and H6 which predicted a moderating effect between the independent variable and the mediator (path a). The assumption was that Age and Work

Experience would moderate the effect between Employer Branding and APC. Assuming that the moderation hypothesis is supported, there is the possibility that the mediating effect is to some extent dependent on the value of the moderator. Therefore, by incorporating the moderators into the mediation model it was possible to consider the prospect of a statistically significant indirect effect between Employer Branding and Intentions to Join through APC to be, at least to some extent dependent on age and work experience.

Table 4.3 Indirect and Total Effects

Type	Effect	Estimate	SE	95% C.I. (a) Lower	Upper	β	z	p
Indirect	Employer Attractiveness > APC > Intent to Join	0.290	0.206	0.08001	0.863	0.247	1.41	0.159
Direct	Employer Attractiveness > Intent to Join	0.450	0.203	-0.00769	0.814	0.383	2.21	0.027
Total	Employer Attractiveness > Intent to Join	0.741	0.166	0.41425	1.067	0.630	4.45	<.001

Note. Confidence intervals computed with method: Bootstrap percentiles

Note. Betas are completely standardized effect sizes

Table 4.4 presents the results of this analysis. Results show that Age does not moderate the path from Employer Branding to APC because the interaction between Employer Branding and Age in predicting APC is not significant ($\beta = 0.017$, $z = 0.056$, $p = 0.95$). Similarly, Work Experience did not moderate the path from Employer Branding to APC because the interaction between Employer Branding and Work Experience in predicting APC was not significant. However, it is worth noting that the beta coefficient is high ($\beta = 0.28$, $z = 0.89$, $p = 0.37$) and could indicate that work experience could possibly moderate the relationship.

Table 4.4 Moderation effects (interactions)

Moderator	Interaction	Estimate	SE	Lower	Upper	β	z	p
Age	`Employer Attractiveness`: Age > APC	0.00143	0.0254	-0.0484	0.0513	0.0170	0.0562	0.955
Work experience	`Employer Attractiveness`: `Work experience` >APC	0.14631	0.1643	-0.1757	0.4683	0.2832	0.8906	0.373

Note. Confidence intervals computed with method: Standard (Delta method)
Note. Betas are completely standardized effect sizes

Implications of study

From a theoretical standpoint, the findings of this study lend support to the existing literature (Myrden & Kelloway, 2015; Alshantry et al., 2017) in showing a link between employer branding, APC and Intention to Join. It is interesting to note that the main effects under study were significant with only 35 eligible responses which denote a high effect size. The very small sample size does not, however, allow for generalisations to be made in regard to findings or context. Therefore, although some hypotheses were found to be significant, results are to be interpreted with caution and more research in the area needs to be carried out in order to garner more insight into the interactions between the variables proposed in this study.

It is worth noting that, despite the fact that mediation effect was not found to be significant, this might have had more to do with the method used for data processing and analysis rather than actual lack of mediation. It has been argued in the literature (Zhao et al., 2010; Hayes, 2009) that the Baron and Kenny (1986) method to assess mediation is possibly flawed and outdated. Bootstrapping has been the method mostly recommended for mediation analysis (Hayes, 2009) and although bootstrapping was used to analyse data, the basis of it was still regression analysis. This method essentially utilises hierarchical regression which assigns specific roles to each variable (either as a cause or an effect) and presumes that an overall relationship must exist for mediation to take place. This can be a faulty assumption, and a limiting one since mediation is a causal concept which cannot be reduced down to a set of variables having fixed roles (Gunzler et al., 2013). Structural equation modelling (SEM) would have provided a better inference framework for mediation analysis. SEM allows for more fluid variable roles in mediation and that is what enables SEM to infer relationships. Therefore, testing for mediation through SEM by means of bootstrapping method might have yielded more credible results and is certainly a promising avenue for future research.

Recommendations

The main limitation of the study was due to the very small response rate obtained. This imposed serious limitations on the analysis and generalizability of the findings. The small sample size lacked statistical power to detect an effect size of practical importance. This means that rejecting the results of the moderated mediation analysis might have been prone to type II error. In retrospect, distributing and collecting data by hand by visiting lecture classes might have had a different outcome on the quantity of the responses. However, with the situation brought about by the pandemic, this would still have not been possible. However, it is an option that should be considered for future research.

- Since the study was conducted on students rather than actual job-seekers, the results might have reflected on differences in motivational effects in finding a job. Future research could focus on actual job-seekers to control for these effects

- The present study was conducted on University students having a specific academy background. It would be interesting to see if conducting the study with students undertaking other courses, or the unskilled job-seekers would yield the same outcomes.

- Finally, considering the foreign workers currently working in Malta and the different cultures they make part of, understanding whether there are any cultural differences in how employer branding is received and perceptions formed, as well as whether they would be inclined towards different elements of the APC, would be beneficial in attracting different candidates.

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Special Educational Needs in Gozitan Primary Schools:
A Qualitative Study of Parental Involvement

Ramona Attard

Introduction

The involvement of family in learning helps to improve student performance, reduce absenteeism and restore parents' confidence in their children's education (Garcia & Thornton, 2014).

This study aimed to explore the parental involvement of parents whose children have special educational needs (SEN) and are supported by a Learning Support Educator (LSE) at school. Roy and Giraldo-García (2018), describe the positive and strong bond between home and the school as an investment in the education of children.

Research Questions

Children with SEN need more support than other students. Examining the parents' role in their children's education is the way forward to ensure progress in parental involvement. The first research question formulated, was "How do parents describe their involvement in the SEN of their children in Gozo?" This study also seeks to identify the barriers that hinder parental involvement in the local context. We need to understand parents by examining the home and school relationships that currently exist. This leads us to the second research question, "In Gozitan primary schools, what barriers do parents of children with SEN describe?" The ultimate goal is that children with SEN will be supported by a healthy relationship from both parents and educators for a successful educational journey. Parental involvement in the local context was also investigated, as well as key literature on SEN.

Research Methodology

The study adopted a qualitative stance. Four interviews were conducted with four different Gozitan parents who have children with SEN, and are supported by an LSE at school. The targeted participants were those whose child attends a primary school in Gozo. It was also important for this study that the student had been supported by an LSE for almost 2 years. This meant that the parents of children with SEN were involved in their children's education and were also aware of the existing barriers. Another factor was that these parents had to value inclusion. In qualitative research, interview is one of the most used technique to collect information (Yates et al., 2019). The interviews were semi-structured. This was useful to gather information about parental involvement and the parents' experiences. The four participants were introduced and a brief profile of each was given.

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Analysis of Results

Results were presented under four main themes 'Parental involvement perceptions', 'Barriers to parental involvement', 'Bridging the gap between home and school', and 'Emotional involvement'.
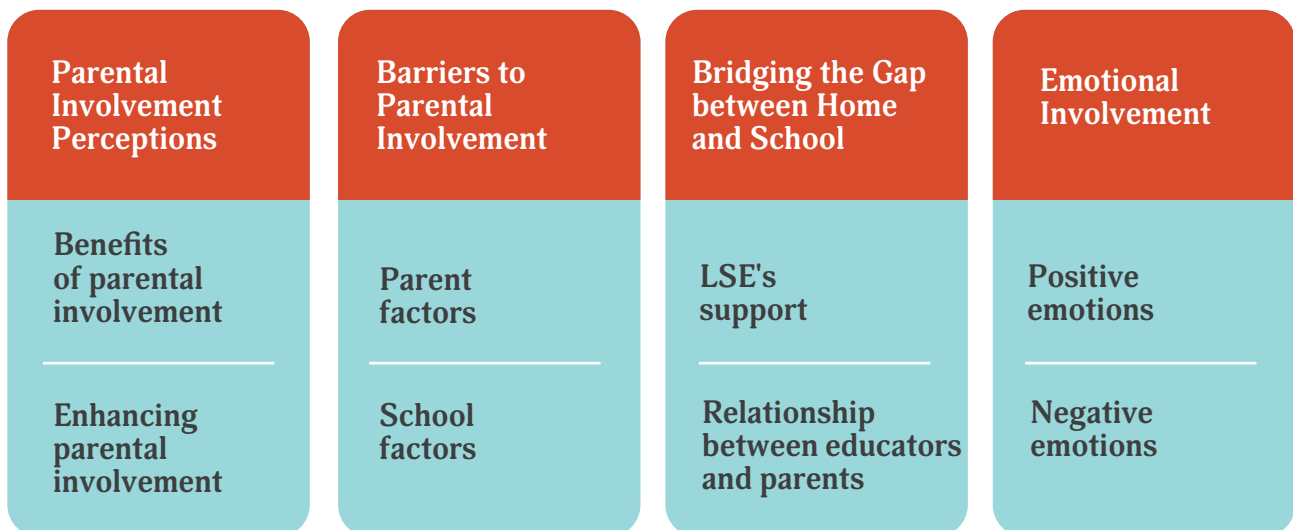
Parental Involvement Perceptions	Barriers to Parental Involvement	Bridging the Gap between Home and School	Emotional Involvement
Benefits of parental involvement	Parent factors	LSE's support	Positive emotions
Enhancing parental involvement	School factors	Relationship between educators and parents	Negative emotions

Figure 1 - Main themes and sub-themes

The participants' quotes were presented both in English and Maltese. A brief profile of each participant was shown. The four parents who were interviewed, are all female living in Gozo. Their ages range from 34 to 44 years. All parents interviewed showed interest in their child's education and involved themselves as much as they could. This was done by supporting their children both at school and at home. They also believed that enhancing parental involvement increases the level of communication and strengthen the partnership between them and the school. The barriers the parents discussed were parent and school factors. Work was the main barrier, as they expressed their concern for the lack of time to involve themselves with their children. Another barrier was that their children had SEN, and parents emphasized the importance of accepting their children as they are and being good role models. Feelings of incapability to help

their child with their homework were pointed out, as education has evolved over the years. To bridge the gap between home and school, parents needed to feel welcome and work as a team with educators and professionals for the child's benefit. The LSE's support was very important for parents as they felt that the LSE was promoting independence and fulfilment while catering to their child's needs. Daily communication was effective using a communication diary. Parents also pinpointed the importance of the IEP meeting, as they took the educators' and professionals' advice, and planned together goals for the scholastic year. Parents got to know more about their child's progress during Parents' Day and Evening. Emotional involvement was experienced by all participants and even children. Positive emotions such as motivation and happiness and negative emotions such as helplessness and frustration were described. Following the analysis of results, findings confirm that parents of children with SEN are being involved in their child's education. Results also showed that educators must understand parents and partnerships between parents and schools must be improved.

Discussion

The researcher agrees that "the role of parents as partners in the education process is important throughout the different cycles, especially during the Early Years" (Ministry of Education and Employment, 2012, p. 48). For this partnership to happen, Epstein (2018) suggests that the new way is all about student success. Keeping this in mind, the researcher strives to boost the way forward, and help Gozitan and Maltese primary schools involve the parents more. It is important to point out that due to COVID-19, these recommendations are not possible. Following the advice from the public health authorities, currently, parents are not allowed in schools to attend events, meetings, or activities. Therefore, these are recommended to be done virtually on Microsoft Teams.

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Recommendations

Recommendations to Head of School

a) *A vision should be developed so that all educators will know how to involve parents.*

As the Head of School is the leader, he or she should empower all educators by doing an internal review. Educators will have the opportunity to communicate their concerns, and the school will discuss solutions. Good practices will be reviewed and implemented for a successful partnership between educators and parents.

b) *Parents will be given the opportunity to voice their opinions.*

To bridge the gap between home and school, the Head of School will allow all parents to speak. They will be given some time to ask about any queries they may have, voice their concerns and also suggestions to improve their involvement. Furthermore, during Parents' Day and Parents' Evening, more time should be allocated for parents.

c) *An action plan should form part of the School Development Plan to clearly state the roles and responsibilities.*

Keeping the parents' suggestions and queries in mind, an action plan regarding parental involvement should be developed and given to parents for every scholastic year. In this way, roles will be identified and parents will know what is expected from them. Support will also be provided if needed.

d) *The Head of School will provide a safe and welcoming environment especially for children with SEN.*

Keeping children with SEN in mind, the Head of School will buy the necessary equipment and resources to accommodate their needs. For example, a dyslexia friendly school, a sensory room for children with autism, a lift for wheelchair users amongst others.

e) *The Head of School will organise workshops for parents with different year groups.*

Some parents find it difficult to help their children with their homework. Organising workshops, for example on literacy and numeracy will help them to understand and be able to help their children at home. Other parents are not tech-savvy and doing a workshop, for example, on how to use Microsoft Teams will help them to feel more confident. To be motivated, parents can choose which workshop to attend.

Recommendations to Educators

a) *Educators will welcome parents and organise a meeting at the beginning of every scholastic year while inviting parents in class during the scholastic year.*

During the meeting, educators will provide all the necessary information regarding the scholastic year. Educators will make the parents feel welcome and if there is a language barrier, a translator will be provided. During the scholastic year, to involve the parents, educators will invite parents to the class. They will get an idea of how their child is doing while participating in a lesson.

b) *Educators will invite parents of children with SEN for a Peer Preparation Programme in class.*

Parents of children with SEN will have the opportunity to talk about their children. The peers will get to know the child better and they can ask questions. They will also learn how to support the child during the scholastic year.

c) *Educators will seek professionals' help when needed and inform parents.*

If a child with SEN will benefit from the help and support of other educators or professionals, such as school counsellors, nurture group programmes, speech therapists, occupational therapy, and others, the educator will refer the student. This will be done with the consent of the parents.

d) *Educators will provide help, resources, and a 'No Homework Day'.*

For struggling parents who do not know how to help their children with SEN at home, the educator will guide the parents. This can be done by explaining the homework both to the child and the parent. Moreover, adaptations and resources will be available to the parents through Ilearn. A 'No Homework Day' once a week means that children will have more time for extra-curricular activities or reading practices.

"

Some parents find it difficult to help their children with their homework …

Recommendations to Parents

a) *Parents will attend workshops, activities, and meetings organised by the school.*

It is in the parent's interest and for the benefit of their child to attend workshops, activities, or meetings. Moreover, if they cannot attend due to work or other personal reasons, they should stay in contact with the school by email or phone.

b) *Parents will voice their opinion through the school council.*

If parents are not members of the school council, they should still share their ideas and opinions. It is important that they also get involved in the school's initiatives by offering their help.

c) *When there is a barrier, parents will open up and discuss with educators.*

When parents encounter any type of difficulty, they must speak with the Head of School, class teacher, or LSE. If there will not be any type of collaboration, the problem continues to persist. An appointment will be made and the parents and educators will find the best solution to the problem.

d) *Parents will join specific local organisations that cater to children with SEN.*

Parents joining local organisations will be educated more about their child's SEN and will have the opportunity to meet other parents facing the same problem. Support will also be provided. As regards the social aspect, the child will be able to attend social activities to enjoy themselves.

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Conclusion

This qualitative study can help everyone to better understand the role of parental involvement. The results have shown how crucial it is that parents and educators work together for the benefit of children with SEN.

The barriers that parents of children with SEN were faced with, were analysed. This led to raising awareness amongst primary schools and parents about the importance of parental involvement. It is believed that involving parents can make a positive impact on children and their school (Epstein, 2018; Puccioni, 2018). This study will also serve as an eye-opener, especially to educators, who will better understand the parents and involve them more by reflecting on their current practices and implications of their actions. The researcher concludes this study by inviting the Heads of School, educators, and parents to acknowledge the analysis of results and recommendations for successful parental involvement. We have to keep in mind that "every child is a perfect work waiting to be revealed" (Salend, 2001, p. 203).

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The Impact of Psychological Capital on Employees' Job Performance in a Public Entity in Malta with the Mediating role of Job Satisfaction.

Rosann Grech

Rationale for the study

Today, an efficient administration of human resources is vital to supervise individuals and the workplace. The increased challenges experienced by employees is affecting their performance and satisfaction in the work environment. The following research investigates how Psychological Capital (PsyCap) is associated with positive workplace outcomes including attitudes such as job satisfaction (JS), commitment and job performance (JP) (Luthans et al., 2007; Avey et al., 2011a).

PsyCap is a recent terminology originating from positive organisational behaviour derived from positive psychology. PsyCap is built upon four essential elements: hope, optimism, resilience, and self-efficacy. Furthermore, this concept focuses on the individuals' potentialities rather than looking at the individual`s flaws and limitations. Thus, analysing how positive criticism, response and manners lead towards the development and higher performance of the individual or a team in an organisation (Luthans & Youssef-Morgan, 2017).

Moreover, studies shown that PsyCap is a state-like construct; it is open to enrichment and development (Luthans et al., 2007a; Luthans & Youssef-Morgan, 2017).

This developmental perspective offers organisations the opportunity to enhance employees' JP, JS and improve their commitment towards work. Existent studies worldwide on PsyCap, JP and JS have found substantial correlations between these variables (Rego et al., 2010; Luthans et al., 2010; Avey et al., 2011b; Peterson et al., 2011; Levene, 2015; Luthans & Youssef-Morgan, 2017). However, there is a limited empirical evidence which explores them together; consequently, this study aims to investigate the impact of PsyCap on employees' JP working within a public entity with the mediating role of JS. The chosen public entity is the Foundation for Educational Services (FES), an entity within the Ministry for Education and Employment (MEDE).

The connection between these three variables led to hypothesis development:

- Hypothesis 1: There is a positive relationship between PsyCap and employees' JP.

- Hypothesis 2: There is a positive relationship between PsyCap and employees' JS.

- Hypothesis 3: There is a positive relationship between employees' JP and JS.

- Hypothesis 4: Job satisfaction mediates the positive relationship between PsyCap and employees' JP.

Research participants

After an extensive search on this topic, there seem to be no studies on the effect of PsyCap on employee's JP with the mediating role of JS in the Maltese context. The population size (N) of this public entity consists of approximately of 400 employees. In all, there were 176 participants who took part in the research, thus the data contained 44 per cent of the total population. The sample size used, at 95 per cent confidence level, yielded a 5.53 per cent confidence interval. A pilot study with ten participants was also implemented to test the feasibility of the study and data collection process (Hassan et al., 2006). Thus, this sample can be considered as a general and an adequate representative of the entire population (Martin & Bridgmon, 2012).

Methodology

The positivist quantitative approach was the most suitable in this research, shaped by existing data and research question (Edmondson & McManus, 2007). A cross-sectional design and a convenience sampling were implemented using three well-known survey questionnaires. A summary of each questionnaire can be found below:

- Psychological Capital (Independent Variable): PsyCap was measured using the PCQ -12 a short version of the Psychological Capital Questionnaire (PCQ) (Luthans et al., 2007a).

- Job Performance (Dependent Variable): JP was measured using the Individual Work Performance Questionnaire (IWPQ 1.0) (Koopmans et al., 2014).

- Job Satisfaction (Mediator Variable): JS was measured using the Brief Index of Affective Job Satisfaction Questionnaire (BIAJS) (Thompson & Phua, 2012).

All participants were solicited to take part in this study through an email with a link guiding them to an online survey questionnaire or a hard copy questionnaire. This was decided according to their respective sectors. In both cases, participants were provided with information regarding the purpose of the study and seeking their consent. The coding and input of the quantitative part of the study were carried out using Statistical Software Package for Social Sciences (SPSS) 20.0.0. All tables and figures were converted into APA style.

Findings

Initial analysis reveals some interesting correlations (see Table 1), the mean of PsyCap (M= 4.79), JP (M=3.48) and JS (M=3.96) are more towards the positive side of the Likert scale and the data collected is evenly divided around the means. Findings reveal that there is a positive relationship between PsyCap, JP and JS showing that all p-values are <0.05 level of significance. To assess internal consistency, the Cronbach alpha was used showing (α=.88) therefore indicating an overall good reliable internal consistency. Table 1 shows the correlation Matrix between PsyCap, JP and JS and provides a summary of the most important results for this statistical analysis.

Table 1 - Means, standard deviations and Cronbach's alphas

Variable	M	SD	1	2	3
1. Psychological capital	4.79	.61	.84	__	__
2. Job performance	3.48	.45	.49	.80	__
3. Job satisfaction	3.96	.74	.49	.26	.89

Note. Table 1 indicates the means, standard deviations and Cronbach's alphas (Coefficients alpha are on the main diagonal) among the observed variables. n=176. p-values <0.05 level of significance

The participants have positive psychological willingness and enthusiasm to attain their objectives and achievements at work as the mean of PsyCap is on the positive end with a value of (M=4.79, SD=.61) (see Table 1). Luthans et al. (2007a) expressed that "employees who are more hopeful, optimistic, efficacious, and resilient may be more likely to 'weather the storm' of the type of dynamic, global environmental contexts confronting most organizations today better than their counterparts with lower PsyCap" (p. 568). Therefore, when the organisation focuses on PsyCap and works on its positive developmental framework, it improves the employees' performance, well-being, and organisation's outcomes.

Likewise, the average of JP amongst this public's entity was relatively high with (M=3.48, SD=.45) (see Table 1). This reflects the ability of the employees to be acquainted with adequate information about the work in the organisation, and the competency and efficiency in the performance of tasks required from the employees. Thus, it is expected that organisation performance is enhanced with the accumulation of individuals' signs of progress and performances (Lam

& Schaubroeck, 1999). Consequently, JP is a significant employee outcome necessary to enhance the overall performance of an organisation.

The mean of JS was also favourable, it extended to (M=3.96, SD=.74) (see Table 1). This might be due to the employees' sense of psychological comfort, enthusiasm, and overall affective satisfaction about the job. Hence, JS demonstrates substantial links with several variables such as organisational commitment and organisational citizenship behaviour (Youssef, 2000; Buitendach & De Witte, 2005; Booysen, 2008). Work is a crucial feature of people's lives and occupies a vast part of their time at their place of employment. When employees are satisfied with their job, they take pleasure in completing their duties, in return positively influence their physical and psychological wellness (Wright & Cropanzano, 2004). As a result, they tend to invest more in their professional development, build good relationships with their colleagues, increase their respect towards superiors, and contentment with the given wage.

The Relationship between Psychological Capital and Job Performance

H1 posited that there is a significant relationship between PsyCap and JP. The positive existence of this relationship might be due to employees who possess the confidence and strong motivation to perform their job efficiently, whatever the circumstances. Thus, an employee with an elevated level of PsyCap may be a dominant performer due to the level of positive psychological build-up recognised by their behaviour, cognition and enthusiasms compared to other

constructs that emphasise solitarily on one or two of the four constituents (Luthans et al., 2007a). Hence, we can generalise that the employees with a higher PsyCap obtain a better JP rating.

The Relationship between Psychological Capital and Job Satisfaction

H2 postulated that there is a positive relationship between PsyCap and employees' JS indicating that this positive relationship is significant and not attributed to chance. This can be interpreted that PsyCap motivates employees to conquer their struggles while equipping them with flexibility and self-assurance in their work environment. Therefore, when PsyCap increases, JS is expected to increase as well. Avey et al. (2011a) expressed that "given the overall expectation of success derived from optimism and belief in personal abilities derived from efficacy, those high in PsyCap report that they are more satisfied with their job" (p.132). As a result, they are more satisfied with their work in general and this positive result supports professional growth.

The Relationship between Job Satisfaction and Job Performance

H3 hypothesised that there is a significant relationship between JS and employees' JP. This positive relationship is reasonable; employees who increase satisfaction in their work cumulate enthusiasm and high spirits which reflects positively on their job productivity and performance. Hence, one can imply that employees with a higher JP are more likely to obtain higher JS (Judge et al., 2001). There is an eminent argument on whether performance causes satisfaction or satisfaction

prompts performance (Luthans, 1998). Eventually, organisations with satisfied employees enjoy more fruitful employees. Conversely, a dissatisfied employee is viewed as a firm individual who is unfeasible upon his/her goals, despondent and unable to conquest environmental inhibitions. Hence, JS entails people's perceptions of their specific profession and such insight is disturbed by their distinctive circumstances such as abilities, necessities, and values (Rothmann & Agathagelou, 2000).
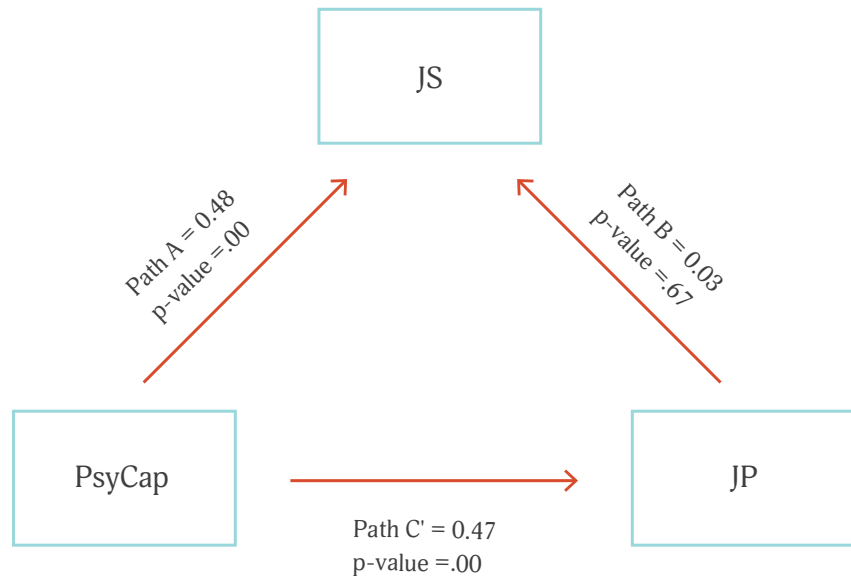

Figure 1 - Multiple regression method

Job Satisfaction as Mediator of Job Performance and Psychological Capital

According to H4, results show that JS does not mediate the relationship between positive PsyCap and JP. Here it was established that the standardised coefficient of regression is (β=0.03) and the p-value between JS and JP is 0.67 (see Figure 1) which is >0.05 level of significance. This is because, with the introduction of JS as a mediator, PsyCap still has a significant effect on JP, while there is no significant relationship between JS and JP rejecting H4.

All of this indicates that JS is not an effective mediator in this model and so there is no significant relationship between the mediator and the dependent variables. These findings explicate that every time employees were satisfied with their work, it was not reflecting positively on their PsyCap attributes, thus self-confidence, resilience, hope and optimism which as a result effects JP outcome in the organisation. However, it could be that with JS as a mediator, employees with a high level of PsyCap have more positive perceptions of their JP however, JP is not significant to the JS of the employees.

Contribution to the theoretical framework and implications

It is interesting to note that most of the participants have three to four years working experience with the entity. With this background, the information obtained was limited to a three to four-year window. This also reflects the high number of young participants which on the other hand lack experience and expertise. In fact, even though most of the replies were from full timers, most of the employees working within this organisation are part-timers.

Conceivably, employees who are hopeful, efficacious, resilient, and optimistic tend to be highly oriented towards an overall positive effect, thus greater satisfaction, and performance. This would support employees in attaining the necessary commitment towards their occupation, thus increase the possibility of staying longer in their current employment. Hence, positive employees will add PsyCap in their workforce through the build-up of the organisation's identity and connect with the brand of the organisation. As a result, employees will affiliate with the organisation's vision and appreciate their occupation role as it nurtures their meaning of life (Steger et al., 2012).

Literature on PsyCap has predominantly targeted research based on individuals (Luthans et al., 2006). As a result, there are few studies available on its connection amongst group performance and other significant related outcome assessments of an organisation (Luthans & Avolio, 2009). Consequently, new research is required to focus and examine the constituents of PsyCap in a group (Totterdell et al., 1998; Totterdell, 2000). This is highly significant due to the increase of team performance projects in organisations (Chan, 1998; West et al., 2009).

Another implication is upon PsyCap absence to assess the connection and dissimilarities towards other comparable interventions such as emotional intelligence, CSEs and locus control (Luthans et al., 2007a;

Avey et al. 2010a; Avey et al., 2010b). Such studies will help to develop the construct validity of these concepts while strengthening the psychometric profile of PsyCap and PCQ which will widen and test internal consistencies (Hackman, 2009). On the other hand, it will further elucidate ways that PsyCap, together with such similar constructs, could be of greater significance for the work environment (Dawkins & Martin, 2014; Youssef-Morgan, 2014).

Practical implications of results for managers

The psychological construct of PsyCap has positively impacted the level of performance and satisfaction of employees working in this public entity. Consequently, this organisation ought to give more consideration to the implementation of PsyCap as this will improve the quality of their JP and JS and thus improve the overall organisational functionality and positivity. Thus, positive psychology can be developed to increase effective awareness of self and others, social expertise, creativity, and managerial accomplishments particularly desirable for global leaders (Youssef & Luthans, 2012).

Leadership as a construct has been revealed to be casually linked with PsyCap (Luthans et al., 2014), well-being (Van Dierendonck et al., 2004) and commitment (Emery & Barker, 2007) of the employees; thus, efforts must be implemented to make the leadership style more dynamic, supportive, and transformational. The main features of authentic leaders are the clearness and openness of the behaviours that they show to employees, particularly towards minor staff, specifically when sharing the

information necessary in taking critical conclusions, giving advice to employees when expected, and being open to others' ideas (Avolio et al., 2004; Avolio & Gardner, 2005). Nonetheless, positive leadership re-establishes the resources being expelled due to negativity as it extends and builds a model of positivity (Fredrickson, 2004). Therefore, the interaction between a leader and an employee will highly affect the employee's PsyCap; although employees have high levels of PsyCap, leadership might be required to channel this in the right way.

Limitations and directions for future research

Despite the innovativeness of this study, it is imperative to identify potential limitations. This research is connected to a restricted sample from one public entity within MEDE. Although this entity does not differ greatly from other similar sectors in Malta, one cannot be assured that it is representative. To encounter this limitation, future research might seek to sample other public entities within the same ministry. Other studies can even go further by exploring other entities in different ministries and similar private entities. Thus, future studies could take reference of this study providing the possibility to ascertain if the same findings accrue.

More studies on PsyCap are suggested, as even though there is evidence on the efficacy of PsyCap as a construct and on its relationship to improve workers performance and human resource development

(HRD), most of the research available on PsyCap is performed by its constructed research team (Dawkins, 2014). Certainly, it would be interesting to conduct comparative studies on other occupational areas within various industries. Moreover, this research attempted to determine the mediating role of JS on the relationship among PsyCap and JP. In addition, research studies might explore various mediators while simultaneously studying PsyCap. Thus, this study proposed several pathways for future researchers to discover possible mediators of the relationship between PsyCap and JP such as job well-being, work engagement, organisational climate, leadership, organisational justice, and employee's organisational citizenship behaviour.

Most current research focuses on current employees but not on unemployed individuals and job seekers. PsyCap development might be a fruitful line of research in the job search environment. The role of PsyCap may affect the pursuance of employment; those who attended PsyCap training may benefit from a higher levels of job search qualities and obtain employment. Thus, future research could be to observe whether PsyCap training supports job seekers to increase their understanding in the type of work that is most appropriate for their career.

Another limitation of this study is that it has followed the causal step approach as suggested by Baron and Kenny (1986). The extensive use of this mediation method does not guarantee it is a safe strategy due to being less potent compared to others, like Bootstrap. On this regard, Hayes (2013) recommends the use of the bootstrapping method to calculate the indirect affect, evading the limitations associated with Baron and

Kenny approach. Bootstrap tests are powerful because they detect that the sampling distribution of the mediated effect is skewed away from 0. On the other hand, Baron and Kenny (1986) recommendation of first testing the X → Y association for statistical significance should not be a requirement when there is a priori belief that the effect size is small, or suppression is a possibility. Ideally, bootstrap could have been utilised as a supporting method alongside Baron and Kenny (1986) to increase the research credibility.

Finally, due to the cross-sectional nature of the data which was gathered at a one-time point, the connections amongst PsyCap, JP and JS might all be due to the actual circumstances at that specific time. Thus, to establish the validity of this research, upcoming studies must explore the relationship amongst the variables using a longitudinal study design with at minimum three measurement points. Further on, this study was conducted in a female-dominated work environment, so this could have additionally influenced the findings in this research. There are numerous other work-related outcomes, individual differences, cultural, evolutionary, personality, demographic characteristics and contextual features amongst others that require study in future research to offer a better understanding of the exclusive role of PsyCap.

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Conclusion

The main contribution of this study is the introductory support for PsyCap and its positive effect on an organisation. Results demonstrated that PsyCap has a positive relationship with JP and JS.

On the contrary, it has established that JS is not an effective mediator between PsyCap and JS showing the uniqueness and contribution of this research in a Maltese context. Hence, hopeful, and efficient, as qualities, are fine performers, enabling acceptance of major encounters and providing the necessary determination to achieve objectives, but also perceive sub-goals and routes to achieve these targets which lead to advanced performance and higher satisfaction (Larson & Luthans, 2006; Levene, 2015; Luthans & Youssef-Morgan, 2017).

PsyCap is generally considered to be malleable therefore open to development and predominantly pertinent to the workplace due to its positive construct and prospective at work (Luthans etc al., 2007). The research results offer numerous explicit inferences for both practice and research. In fact, there is the tendency to give more importance towards the negativity of people at work and not focus on their potential (Maslow, 1954; Avey et al., 2010b; Luthans & Youssef-Morgan, 2017). Organisations should invest in an efficient administration and development of PsyCap as it is fundamental for positive economic benefits and lasting achievements in the occupational field (Luthans & Youssef, 2004).

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