Rere Āwhio

THE JOURNAL OF APPLIED RESEARCH AND PRACTICE

ISSUE
2021

Rere Āwhio – Journal of Applied Research & Practice is an open access, peer reviewed journal published annually by Otago Polytechnic Auckland International Campus (OPAIC), Auckland, New Zealand.

Rere Āwhio – Journal of Applied Research & Practice is concerned with views, critical debate and reflections on issues of relevance for the programmes offered. It seeks to address current topical matters in the fields of applied management, information technology, construction, and English foundational study. Submissions regarding transdisciplinary issues such as bicultural responsiveness in education, sustainability, pedagogical models, classroom practice, and online learning, are also invited. The journal aims to build a community of practice amongst researchers and students from an array of New Zealand institutions and with wider global networks.

An online version of the journal is available free, ISSN 2744-7626.

Submissions for Rere Āwhio – Journal of Applied Research & Practice are invited from those involved in any aspect of applied management, information technology, construction, foundational English and other fields of study relevant to OPAIC educational offerings. Submission should be sent in electronic format for review and potential inclusion to the Chief Editor: Dr Barnaby Pace c/o Patricia Ostate, Editorial Liaison (patricia.ostate@op.ac.nz)

Submissions for **Rere Āwhio – Journal of Applied Research & Practice** issue one should contribute to critical debate and reflect new understandings within the context of applied management, information technology, construction, foundational English and other fields of study relevant to OPAIC programmes. High standards of writing, proofreading and adherence to consistency through the APA (7th Edition) referencing style is expected. Submission should include: a short biography of no more than 50 words for each author, briefly outlining their professional background and experience; contact information (postal, email and telephone number) should be provided on a cover sheet, with all such information withheld from the body of the submission. Low resolution images with full captions should be inserted into the text to indicate where they would be preferred, and high-resolution images should be sent separately with copyright permissions attached where relevant. Peer review forms will be sent to all submitters in due course, with details concerning the possible reworking of documents where relevant. All submitters will be allowed up to two subsequent resubmissions of documents for peer approval. All final decisions concerning publications of submission will reside with the Editors. All material will be published both in hardcopy and online.

Formats include: editorials; articles; essays; logs and travel reports; book and educational software reviews; residency reports; publication reviews, interview, roundtables and reflective pieces. Other suggested formats will also be considered; and special topics comprising submissions by various contributions may be tendered to the Editors.

Copy Editing: Jeanette O'Fee

Design & Typesetting: Bernadette Grumball

Cover: Bernadette Grumball

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Rere Āwhio, The Journal of Applied Research and Practice, sets out to collect the voices and experiences of a diverse set of practitioners, educators, learners, and thinkers, and to curate these voices in a way that can be understood by those whose interest lays not only in the why but also the how.

This journal is primarily the initiative of Otago Polytechnic Auckland International Campus (OPAIC), and therefore has a very international flavour. It reflects the multicultural nature of the wider New Zealand community and also the global connections that both inform our practice and are influenced by our unique context. This is accomplished through the acknowledgement and examination of cultural constructs, displayed within our professional contexts.

There is always a fundamental challenge in bridging the space between one set of cultural constructs and another. First, one is required to examine the origins of one's constructs: what are the conditions and artifacts that inform your reality your common sense and indeed your professional practice. We cannot assume the centre without questioning the meta-narrative that informs it.

The realisation of the variety and complexity of constructs that multiculturalism brings, is vital to building and growing our national identity. However, this has to be achieved through localising knowledge systems to fit the physical and socio-political environments that it sits within. This can only truly be achieved through understanding the perspectives of the indigenous peoples of Aoteareoa/New Zealand and constructing a narrative that aligns these with our constructs.

Within this conversation, the editors of this journal realise this as the challenge of biculturalism.

Accepting this challenge demands we move beyond a nod towards the indigenous, but to a substantive epistemological change. This is encapsulated in the very naming of this publication: **Rere Āwhio, The Journal of Applied Research and Practice**. The name Rere Āwhio was gifted by Tame Te Rangi of Te Rūnanga o Ngāti Whātua. Tame is influential in Iwi politics in the greater Auckland area and is the joint Chair of the Kaipara Moana Remediation Programme. He has a long association with OPAIC and understands the direction that we want to take both through research and more widely, educational philosophy and professional practice.

When giving breath to Rere Awhio, Tame insists that the name cannot be a direct translation of the English language title, but requires its own story, its own life, and its own direction.

His words below, dictate the direction that applied research should take:

> "Rere Āwhio – ko te raupapa o te aronga mō te karangatanga o Rere Āwhio he mea takea mai i te āhua o te ao tūroa nei arā e rere nei te ao taka huri haere ana ki runga o te ara tūturu o tōna ara motuhake…in essence, an active passage via a pre-determined circuit. (Tame Te Rangi, 2021)

In these words, Tame is approaching applied practice and research from an Iwi Māori perspective, informed by his own landscape and history. He is making connections between the past and the future; from knowledge to application. When we insisted on approaching applied research and practice from a bicultural standpoint, this was the fundamental challenge that OPAIC set thecontributors and indeed our readers. Understanding this kaupapa Māori view (past:future/knowledge:application), alongside your cultural construct from the epistemological narrative that informs your professional practice will help to shape the unique perspective of applied research and practice.

Welcome to the inaugural edition of **Rere Āwhio, The Journal of Applied Research and Practice**.

https://doi.org/10.3407a4/rere.00101

Article

WĀNANGA KAIRANGAHAU: APPRECIATING RESEARCH AND CO-PUBLICATION

Marianne Cherrington, Christiaan Bredenkamp
& Tavish Sehgal

ABSTRACT

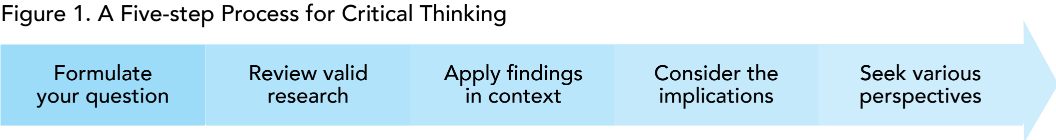
The purpose of applied research is to inform action. Since our lives are built on the choices we make, critical evaluation, experiential learning and knowledge-sharing are developed competencies that ultimately transform our lives, our communities, and our future. The vision of Otago Polytechnic Auckland International Campus is to develop 'New Zealand's most employable graduates'; research capability and co-publication are meaningful, empowering and leverageable mechanisms in that pursuit. This reflective paper explores the value of student research, from three different stakeholder perspectives, by reflecting on a student-lecturer co-publication pilot initiative and its evolution into 'Wānanga Kairangahau' (researcher workshops). Wānanga Kairangahau is a student-led process designed to evolve assessment research into co-research and co-publication at Otago Polytechnic Auckland International Campus. The aim is to encourage greater participation in research and enthusiasm for inter-disciplinary, scaffolded learning and knowledge sharing on campus and beyond. Researchers seek to understand the world around them and the complex problems of society. We find that activating our research and expanding our networks and fields of influence can break boundaries and transcend limitations. We consider how to build on our expertise and global fields of experience to build knowledge, create impact, and embolden aspirations. By empowering an active research culture, we explore opportunities, capabilities and revelations that arise from growing a strong collaborative research practice to create new possibilities that enliven bold, forward action for more sustainable innovation (Zhukov & Cherrington, 2020).

Keywords: Wānanga Kairangahau, researcher workshop, co-publication, co-research, employability, student-centred learning and teaching, research collaboration

INTRODUCTION

Applied research endeavours to find a "solution for an immediate problem facing a society, or an industrial/business organisation" (Kothari, 2017, p.9). This aligns with a five-step process for critical thinking (Agoos, 2016) that is vital for students, for research and for decision-making.

Figure 1. A Five-step Process for Critical Thinking



Research is meant to be activated, as part of critical thinning and problems solving processes. We live in an era that is informed by social media, fake-news, and misinformation (Lazer et al., 2018). Consequential decision-making should be informed, knowledge-based and critically analysed. It should not be based on a whim, toss of a coin or twaddle. The skills involved in researching are invaluable; they elevate the person, the organisation, and the networks we serve. Unfortunately, in the busy-ness of business, the value of assessment research is not always cultivated to leverage student-centred learning and sound student research.

At Otago Polytechnic Auckland International Campus (OPAIC), our global students face many hurdles towards employment; they are in a new country, the education system is often very different, English is likely to be a second language and they do not have networks towards employment that domestic students usually have. Hence, each assessment a student undertakes should be appraised as an opportunity to not only excel and attain a qualification. Research tasks can be developed and leveraged into projects, publications or portfolio pieces that support a dream job. Tertiary education providers and lecturers take a transformational lead to nurture and support this potentiality (Zaffron & Logan, 2011; Logan, et al., 2008).

In this reflective paper, we contemplate student-lecturer co-publication via a pilot initiative and its evolution into 'Wānanga Kairangahau' (Researcher Workshops). We begin by looking at the components of the pilot and focus on its iteration into a facilitative, student-led process leading to submissions as journal co-research publications with lecturers as advocates and mentors. The programme was designed to make a lasting impression and impact for both students and lecturers and to elevate behavioural change though the process of research (Cherrington, 2020). Feedback showed that the experience was very different for diverse participants, but valuable for all involved.

METHODOLOGY

As part of a Master of Professional Practice, a number of Campus Sustainability Initiatives (CSI), were evaluated for efficacy via stakeholder feedback. Both comparative and quantitative metrics were made regarding CSI participation (number and type) and outputs achieved (number and type); stakeholder feedback was also garnered and evaluated. Ethics approval was granted (application AIC85). The seven CSI are summarised as follows:

– Campus Sustainability Workshops kick-starting sustainability initiatives campus-wide.
– Student Research Forums highlighting excellent research across OPAIC campus.
– Sustainability Industry Open Days showcasing sustainability research linked to industry.
– Wānanga Kairangahau Workshops to leverage student research for publication.
– OPAIC journal submissions (JCS) kick-start OPAIC co-publishing/co-researching outputs.
– Student Sustainability Projects (SSP) Interdepartmental research/assessment projects.
– Projects for Sustainable Operations (PSO) sustainable practice in OPAIC operations.

Journal Campus Submissions (JCS), were borne out of the instigation of our OPAIC research journal. An Expression of Interest for the journal, triggered the research pilot in the two weeks between term one and term 2, 2021.

The JCS pilot evolved into the first Wānanga Kairangahau, where Otago Polytechnic SCOPE and Junctures journals were targeted as sources for publication. From that WK feedback, the second WK was held, targeting the New Zealand Population Conference for submission. These WK led to presentations as OPAIC Student Research Forums (SRF) and Sustainability Industry Open Days (SIOD) and a Campus Sustainability Workshop (CSW).

WK were improved iteratively and extended to off-campus journal/ conference submissions; they then linked our Industry Project and Internship Project research and another CSI, Projects for Sustainable Operations (PSO), with more research publications. The seven-fold CSI approach scaffolded and leveraged efforts and feedback from all CSI was discussed.

From stakeholder feedback, and building on the re-establishment of Student Research Forums (SRF) and Sustainability Industry Open Days (SIOD), Wānanga Kairangahau was organically and continually improved using a Plan-Do-Check-Act (PDCA) process (Sangpikul, 2017) from a pilot research workshop to multiple four-stage, student-led roll-outs.

Key results and reflections from the WK roll-outs are summarised in this paper; three key reflective perspectives are provided from the Wānanga Kairangahau facilitator (a senior student), from the students as participants of the workshops and from lecturers, who acted as co-sponsors/ co-publishers/ co-researchers with students.

ENCOURAGING RESEARCH ON CAMPUS

At OPAIC, lecturers are required to be research active and industry current. It is good practice. It is also an opportunity to lead and role model a higher standard and expectation for our students which will help them navigate their coursework, and build an interconnected pathway within their qualification. Ultimately, students gain the confidence to network and successfully bridge from education into employment aligning study and lifegoals. Project work, internships and applied research are an OPAIC forté and can be part of that conduit.

Following two conference-style OPAIC events including a Student Research Forum (SRF) and Sustainability Industry Open Day (SIOD) in term five 2020 and in term one 2021, respectively, lecturers identified that excellent student research was presented but not galvanised into something more. Coincidentally, OPAIC was instigating a campus research journal; co-research/ co-publication aligned well, but the term was vague or without context for students and hung as an empty signifier (Laclau & Mouffe, 2002; Fairclough, 2003). Therefore, during term break, ten students were shoulder-tapped for the co-research/ co-publication pilot. Only five attended and our first submission due date for abstracts was less than three weeks away.

A CO-RESEARCH/ CO-PUBLICATION PILOT

We began by assessing the research of the students who were interested in an opportunity to publish. This was work on top of regular study responsibilities and assessments, but by selecting top student research for the pilot, some of the effort would be mitigated. Two of the students selected were keen to publish research connected with their coursework. Another student had a strong propensity for research and was identified to lead the pilot follow-up. The final two students were Information Technology (IT) alumni students, completing an inter-departmental campus emissions mitigation internship project and publication was part of their brief. Their reasons for participating were to augment their tertiary education by anticipating industry expectations. They were focused on relevant employment. They felt attending workshops and seminars was a priority in bridging the classroom-to-job gap. This ethos had been developed while studying IT at OPAIC, where they were encouraged to 'be agile' and explore software and cutting-edge technologies. They had learned the process of conducting research on their subjects with mentorship to arrive at conclusions after careful investigation, experimentation, and simulation. They felt research workshops promoted passionate interaction and active participation, to improve student skills, expertise and build better relationships with professionals in the field. These two students were enthusiastic to go above and beyond work assigned; they were keen to learn about the latest information and new skills relating to relevant subject topics. They had a genuine desire to discover and learn about new subjects.

A four-stage co-research/ co-publication pilot process was created and followed with a pre-meeting task, learning topic meeting and draft exercise, with homework (Figure 1). Interestingly, we realised each student could isolate assessment components into several journal submissions, so milestone deadlines were mapped out.

Table 1. Four stages of the Co-research/Co-publication pilot.

	STAGE ONE	STAGE TWO	STAGE THREE	STAGE FOUR
Pre-meeting:	Bring research & keywords	Check due dates	Check template	Find gap or novel focus
Learning topic:	Journal targets	Paper structure	Citations & referencing	Body of topics
Draft exercise:	Draft abstracts	Draft introduction	Literature review	Draft a conclusion
Homework:	Author biography, ORCID	Get lecturer/ sponsor	Check images & copyright	Proof-reading & submit

The first stage, began with brief introductions. The research focus of each student was discussed and linked to journal targets. An abstract was drafted for the first submission. Exemplars and a template-form for abstracts were used, but a one-size-fits-all approach was fraught; some of the submissions were 'scientific', some reflective, and some theoretical. It was tricky and confusing drafting abstracts on the spot, but the discourse and frustration were invaluable! Some international students may feel isolated, struggle and may be wary of asking for help. A lot of learning occurred during the workshops. Homework before the next stage was to confirm keywords, create a research biography and get an ORCID number (a persistent digital identifier for scholarly researchers). Each student was advised to secure a lecturer as a supportive sponsor co-publisher, or co-researcher. We communicated and uploaded shared documents via a Microsoft Teams page.

The second stage was focused on drafting the introduction and setting the structure of the submission. Deadlines for submissions were looming; abstract deadlines were ten days away. Students were in term break, but lecturers were marking and moderating, so students were tasked with securing a lecturer to sponsor their submission.

The third stage was a literature review with source-based citations and referencing. Copyright issues and ethics were reviewed. The depth of scholarly sources tended to need enrichment to ensure a supportive and logical train of thought. Homework was to draft the literature review and develop the novel focus of the submission and to liaise with the lecturer/sponsor.

The fourth stage was to checklist progress with draft conclusions and a Question and Answer (Q&A); dialogue on 'eye-appeal', bullet-points and diagram pointers ensued. Homework was to compete the submission with proof-reading to submit on time. All students were behind scheduled milestones.

The student pilot feedback was generous and constructive. There were some obvious issues.

Overall, communication should have been more well-defined, notably regarding the structure of the pilot as a process towards submission. Other structural issues could be easily resolved.

The pilot was a successful just-in-time iteration, four abstract submissions were accepted for our OPAIC journal, and six new submissions were underway. There were other possible journals for our students to submit to; the pilot was well underway and was modified for re-release as a full-fledged student-led research workshop.

WĀNANGA KAIRANGAHAU – STUDENT-LED RESEARCHER WORKSHOPS

The structured feedback from the pilot came from students and lecturers, and this included:

- clearer description of the pilot process to prepare students for output expectations.
- a visually clear process with homework and milestones was asked for by stakeholders.
- face-to-face sessions were best, adding online or 'own pace' sessions was actioned.
- between term delivery did not suit some students, but in-term might be too arduous.
- each session should last less than one hour with additional time for side discussions.

It was vital to make improvements from the pilot to streamline the next workshop process. The reflective feedback from students regarding the pilot included:

- small group sessions were very appealing to students, discussion informed learning.
- sessions were tailored to meet a variety of needs - a bonus for face-to-face students.
- the pilot complemented and extended students' curriculum-based learning.
- being selected for the workshop pilot gave students a new and exciting opportunity.
- students learned from their peers, who had experience and knowledge to share.

One student stated that they felt 'as a new bee into the professional world', that the working 'environment is highly competitive, and to survive, one must attend as many workshops as possible to stay tuned in or ahead of the competition'. They were enthusiastic about the pilot.

The four-stage pilot was completed in just over two weeks. Its imperfections were welcomed as a means of improving Wānanga Kairangahau, its second iteration, just six days later. The pilot had been designed to be handed on and to be student-led; a student from the pilot was identified to lead and was now mentored to be a Wānanga Kairangahau facilitator and to follow yet improve the pilot process. A student-centred learning and teaching (SCLT) style was now a key feature (Din & Wheatley, s. 14, 2007) although there was no clear consensus on what that might mean in practice, or common understanding of SCLT features or indicators (Gover, Loukkola & Peterbauer, 2019); (Dakovic & Zhang, 2020).

RESEARCH WITHIN A STUDENT-CENTRED LEARNING AND TEACHING MILIEU

In this new iteration, Wānanga Kairangahau, evolved with the implementation of SCLT in a collaborative way to build mutual inspiration, exchange, and institutional learning. SCLT held a promise of self-efficacy and engagement by building student needs, diversity, agency, and tailored learning trajectories (Klemenčič, 2017). The aim is to foster deeper learning processes and outcomes for students to become self-directed, lifelong learners (Hoidn, 2019; 2020). It would be fascinating to explore the 'SCLT in-class', 'SCLT out of class', and 'SCLT as an organisational mindset' evolution via Wānanga Kairangahau iterations (Fink, 2013).

There was excitement when Wānanga Kairangahau students realised they would be working together in the four workshops and a journal or conference paper submission would result. From the outset, the plan was that each student would target a particular publication.

- All materials used were on the Microsoft (MS) Teams page.
- The process template was refined with our new student leader/ facilitator
- Feedback and personal reflective experiences were used by the leader/ facilitator
- Simplification and refinement of the process for SCLT was nurtured.
- Discussion and interaction were highlighted, so that difficulties could be unpacked.

Lecturers did not attend the pilot but sometimes 'popped into' the workshop sessions. Online, lecturers created a supportive persona; it was hoped student momentum and a research movement could be launched and upheld to further augment an SCLT supportive approach.

CLARIFYING EXPECTATIONS – RESEARCH AS A PROCESS

Wānanga Kairangahau began again, with an 'abstract structure' as a conduit and pathway through the writing process. Yet again, students were caught off guard because we had not clearly stated what would be expected from them. It was felt that writing a first draft, then discussing progress/ issues at the workshop would help students find direction in their work.

Discussions seemed to have been one of the most valuable elements of these workshops. OPAIC students are taught, and expected to understand fundamental research principles such as referencing, finding good scholarly sources and articulating research methodology. This expectation creates a vacuum of silence; students can be too shy to ask questions. Speaking with a fellow student about common research principles put the students at ease. This environment made it easier for them to reach out and ask the 'dumb questions' that they otherwise might not have. It clarified gaps in learning for everyone involved.

The evolving format gave students the freedom to ask what was expected for academic writing and convey their current practices. Students may try to offer the 'right answer'; this is especially true with when conducting research. The workshops also provided a safe space to confess 'research transgressions'. For example, in friendly and open discussion, students stated they were sometimes citing sources without reading them and relied primarily on web articles. This was suspected by lecturers. It was valuable that students stated the main reason for not using the OPAIC research database of peer reviewed articles was because they did not like the experience of using the platform. They stated that they would rather use Google Scholar as it was a familiar user experience, even if it gave lower quality sources than the OPAIC research platform.

REINFORCEMENT LEARNING

The idea of a learning system that is aspirational, that adapts its behaviour in to capitalise on a special environmental signal is at the core of Reinforcement Learning (Sutton & Barto, 2018). Wānanga Kairangahau was using 'calls for papers' to elevate existing student research.

Assessments and classrooms can make it more challenging to provide adequate support for students to cultivate their individual researching and writing skills (Andrade, 2019). Added difficulty arises if English is a second language and where technical or scholarly formats are required; therefore, a lecturer or sponsor was strongly advised. The workshops were creating access to a true understanding of students' research and writing methods.

Lecturers typically assess skills via assessments, but the process and methods were unfolding within the workshop discussions with lecturers invited to 'drop in' and 'drop out' so as not to stifle the milieu. Another bonus was that workshops were now during the lunch hour and were recorded (a common practice after the COVID-19 pandemic lockdowns) and life on Teams. Students were made aware and agreed to the recording. The best part was students were at ease throughout the workshops and largely forgot about the recording aspect. Afterwards, students could attend online or 'catch up' or listen again to recordings. It was also a way to allow lecturers to be a part of the workshops, gather insight and provide suggestions to the facilitator without scaring the students.

Wānanga Kairangahau was providing better student support in general and delivering specific guidance to students. It is doubtful that in a normal classroom setting, a lecturer would be able to have similar access to this true unfiltered understanding provided by students. The relationship between a student and lecturer is ultimately different to that of a fellow student. A valuable, fragile level of trust within workshop students was emerging.

COMMUNICATING A VISION AND A PATHWAY

Attendance dropped off dramatically after our second workshop. This was due to a variety of factors, but significantly, the third workshop occurred right after the abstract deadline. Many of the students felt that it was not worth continuing with the workshops either because they did not submit an abstract on time or were unsure whether their abstract would be accepted.

It was evident that using (MS) Teams and 'bulk emails', while quick and easy, may not have always been a good channel of communication. Wānanga Kairangahau will always work best with small groups of students, committed to each other's success. The facilitator must be vigilant as to 'where researchers are' in the research process to keep alert to target journal key dates. It is valuable to have a supportive sponsor or co-researcher to be engaged to keep momentum moving positively.

Great care must be taken, and time allocated to communicate to students the process and multitude of publishing opportunities available to them. They should not be distraught if their first attempt is not accepted as planned; this is part of the learning process and submissions are routinely rejected (Dwivedi et al. 2022). Wānanga Kairangahau should be framed as research improvement workshops; students can join to improve their overall research skills. The aim should be to take students through the entire publication process using previous research, to rework it into something that could be submitted for publishing. Student will improve research skills but ultimately may not attain a published paper. Publishing is an aim and a gratifying bonus to those students whose abstracts are chosen by selected journals.

Another improvement to the overall workshop structure was better communication around timeframes and overall expectations. This included defining the process better as well as what was expected from students and what they could expect to learn in each workshop.

Part of the pilot workshop was that there was a loose structure; it was meant to be a small-group joint learning experience. The Wānanga Kairangahau structure was planned before the workshops began in a PDCA process; it was meant to evolve as the process adapted to meet student needs within their research journey and as external factors presented themselves. Another challenge faced was when students missed a workshop or two; students expected to be brought up to date on what had happened in previous workshops but in actuality, students were expected to get back on track using the workshop recording. Firm workshop dates were needed. Wānanga Kairangahau is a process of focused, four-stage workshops with the 'best, most responsible students' 'lifting their game' personally, professionally to develop their careers. To that end, an unattended third workshop was recorded on MS Teams along with accompanying resources to keep the process moving forward. This was like hitting a reset button. Fully communicated, the final wrap-up Q&A workshop was well attended.

ONGOING WĀNANGA KAIRANGAHAU

Without specific journal submission outlets until the end of the year, it was tempting to defer the second Wānanga Kairangahau student-led researcher workshops till the end of the fourth term, but momentum would have been lost. Also, many of the pilot students had identified several target journals. Continuity was vital. Between term three and four, another Wānanga Kairangahau was launched. Students from the initial pilot who had other journals to target were invited to attend, but new students were also shoulder tapped by lecturers. Perhaps one student will be mentored into a facilitator role for upcoming Wānanga Kairangahau.

A new goal was that a conference would be targeted. OPAIC SRF promote research presentations and SIOD promote research posters. Also, opportunities may exist for students to submit to industry specialist magazines or other forms of industry facing resources. These outlets may become more popular as our 'industry project' students become more aware of the Wānanga Kairangahau ethos. The connection to industry, as well as project work, was always a WK component feature. Wānanga Kairangahau is meant to be part of a larger group of OPAIC Campus Sustainability Initiatives, designed to shift focus and build networks to communities, business/ industry and employment, aligning with the overarching OPAIC vision of New Zealand's Most Employable Graduates.

In an ongoing effort to align applied management students with information technology skills, the Wānanga Kairangahau process is promising. Nascent technologies can assist decision-making in applied management contexts; it is crucial to be technologically confident when addressing business issues that will transform the future world of work (Pace et al., 2020).

Additionally, it was vital to align successful SRF and SIODs and dovetail them into Wānanga Kairangahau. They must align with the OPAIC employability vision as well as our Strategic Objectives for Sustainable Practice (Mann & Ellwood 2009) to embed sustainability in all that we do (Matthews, 2014).

– to develop sustainable practitioners.
– to model evidence-based sustainable practice in our operations.
– to encourage communities and businesses to embed sustainable practice.
– to ensure our actions benefit our communities.

Wānanga Kairangahau created value and leveraged our work, generating sustainable practices. They shift busy-ness into business. The value of tertiary education is not just in the learning or gaining the qualification, it is in the potentialities of the experiential networks. Research must be practiced and activated. It must be evidenced in our operations. But research must also be encouraged in our communities and businesses to be truly beneficial.

Wānanga Kairangahau has potential to group people who share similar points of view into a single forum and for lecturers and students to build inter-departmental relationships. Such platforms expand mindsets with disciplined research behaviours. Communities of practice (CoP) are beneficial, learning communities. Sharing common interests across subjects can leverage strengths and make the best use of available resources, resulting in symbiotic relationships (Goodwin, 2019). Moreover, CoPs tend to address issues faced by people within organisations, which can be beneficial in resolving a variety of issues. An unexpected benefit of Wānanga Kairangahau was to create a CoP.

Connected to the CoP, in this context, is Student Centred Learning (SCL), which is not the student action component in student engagement (Cherrington et al. 2021). The student agency component of Wānanga Kairangahau built "students' capabilities to intervene in and influence their learning environments and learning pathways" via SCL. (Klemenčič, 2017).

Students learn more effectively and efficiently in a learning environment that augments but is distinct from classrooms (Chawla & Cherrington, 2020). Students tend to research and learn on their own beyond academic syllabuses and 'textbooks'; it enhances optimism, effectiveness, and efficiency. The benefits and significance of Wānanga Kairangahau for students were enormous. They are necessary in higher education, where every aspect of study is relevant to the market and industrial standards and where students must bridge technical learning with real-world experience (Cherrington et al. 2020).

Wānanga Kairangahau had a publishing goal, as per the disciplinary cultures of academic researchers; student feedback was that WK can become a key driver of career progression. Academic publishing is more than just a technology - as a 'prestige economy', based primarily on symbolic capital generated by publications rather than direct financial rewards driven industry (Fyfe et al., 2017). The system underpins claims to new scholarly knowledge, and can have a significant impact on academic researchers in New Zealand Universities and Polytechnics, and networks worldwide (Ware, 2008). Co-publishing increases corporate enthusiasm and promotes on-going education and when published articles are shared organisationally, it can build a collaborative culture, with pride and respect (Ware, 2008).

Wānanga Kairangahau appreciate co-research and co-publication. They led our campus forward by 'listening to the future of our organisation' and appreciating the potentiality of our students to bridge their learning to their aspirational career goals.

CONCLUSIONS

Research must be purposeful, active, and engaging; it creates opportunities (Cherrington et al 2019). Research is collaborative, decisive, and transformative. Wānanga Kairangahau encouraged inter-disciplinary, scaffolded learning to generate SCLT/ SIOD and a research CoP to make our campus truly international.

By linking students and lecturers inter-departmentally, engagement and participation grew. Our best students obtained guidance and used critical thinking to find solutions to bolster their success. Participating in Wānanga Kairangahau built chains of networks; students said they were advancing in their professional lives. Communicating new research encouraged students to investigate nascent topics and to be inspired to conduct research with new learning. Students were motivated to publish their own research with proper guidance from lecturers, contributing significantly to education or industry sectors.

Wānanga Kairangahau was exciting, even from outset with the pilot programme. It was evident that there were students who wanted the opportunity to go the extra mile, improve their technical researching skills and to take their research further, eventually publishing in journals and attending conferences outside of the campus milieu. It will be important to use this student-led Wānanga Kairangahau to build momentum and a research movement within the broader context of campus SCLT and for a 'SCLT as an organisational mindset' revolution via installation of ongoing Wānanga Kairangahau.

The OPAIC Wānanga Kairangahau form strong and growing collaborative research practice to create new possibilities that enliven bold, forward action for more sustainable innovation.

Marianne Cherrington is a Principal Lecturer at Otago Polytechnic Auckland International Campus with a focus on sustainability and computer science and analytics. A lecturer in disruptive innovation, her research into machine learning feature selection algorithms applies in many fields, producing interesting collaborations with local and international partners in many disciplines and sectors. **ORCID: 0000-0002-1240-2010**

Christiaan Bredenkamp is a researcher currently employed at Otago Polytechnic Auckland International Campus. From industry research and analysis for consultancy projects, he progressed to an academic career in continental philosophy specialising in psychoanalytic philosophy and philosophy of economics. His strong academic and professional background in research creates collaboration with international partners in many academic disciplines and industry sectors. **ORCID: 0000-0003-0350-1401**

Tavish Sehgal is an Information Technology (IT) professional and Otago Polytechnic Auckland International Campus peer tutor. He has an interest in IT cyber security and accessibility and is currently conducting research on carbon emission prediction. Current research includes an Mircosoft (MS) Excel prototype to predict carbon emissions and track individual company emissions. **ORCID: 0000-0001-6502-786X**

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https://doi.org/10.34074/rere.00102

Article

THE POWER OF KNOWLEDGE MANAGEMENT IN TERTIARY SECTOR

Patricia Ostate, Barnaby Pace, and Yury Zhukov

ABSTRACT

Tertiary Education Organisations generate significant amounts of data within the course of their primary activities and have multiple complex processes to manage the work of the Faculties, Student Support and Administrative Services. This makes knowledge management a critical necessity to ensure continuity across the organisation. The project examines the practices at Otago Polytechnic Auckland International Campus which is as a joint venture and has a unique challenge of having to merge knowledge management systems from two different tertiary education organisations – Future Skills and Otago Polytechnic.

The project explores internal communications, individual work preferences and knowledge accessibility as key contributors to knowledge management through document analysis and thematic analysis of interviews with members of Otago Polytechnic Auckland International Campus academic and professional teams/departments. The findings identified that different departments rely on individual processes that may vary significantly depending on personal preferences of the key internal stakeholders and often compartmentalise beneficial information without making it available to stakeholders outside of their teams. This research highlighted the challenges of relying on faculty-specific systems for managing operational data, which extends into different knowledge management systems across the organisation and complicates knowledge transfer. The evidence was used to make a case for higher integration of the knowledge management processes within the organisation as a way to maintain consistent quality standards and reduce operational costs, particularly within the context of increased volatility of the higher education sector.

Keywords: knowledge management; tertiary education; organisational contiuity.

KNOWLEDGE IN EDUCATION

The communication and information revolution along with the increasing value of knowledge as a primary driver for growth and the convergent impact of globalisation is forcing tertiary education to face unprecedented challenges (Omerzel, Biloslavo, & Trnavčcevič, 2011). The number of people participating in higher education (HE) has been increasing domestically and internationally. According to education counts the number of equivalent full-time enrolments (EFTs) in public and private tertiary education organisations (TEOs) in New Zealand increased from 181,100 in 1999 to 213020 in 2020 for domestic students with the numbers peaking in 2010 at 254,520 EFTs (Ministry of Education, 2021). The number of international student EFTs increased from 8695 to 38,010 over the same period with a peak of 44,010 in 2016 (Ministry of Education, 2021). These numbers are very significant even within a small HE market like New Zealand, and the tremendous complexity to the organisational logistics within TEOs.

Growth has costs and consequences and one of the biggest ones was the increasing numbers of employees, including both academic and administrative employees with specialised and unique knowledge. The challenges of managing the knowledge were exacerbated by the amount of data that is created by each student or employee involved in the tertiary education process and the increasing organisational requirements for preserving the data in various shapes and forms (New Zealand Qualifications Authority, 2021; Tertiary Education Commission, 2016).

The need to preserve knowledge is not only driven by the organisation's but also by government agencies that are responsible for financial reporting, quality control, pastoral care etc. The formats of data in each case may be slightly different and impose additional burdens on the knowledge management systems within organisations (Tertiary Education Commission, 2016). While external reporting is a compulsory element of compliance and, therefore, organisations are required to invest in data management associated with these reports, internal data management, and knowledge management is much more likely to be sacrificed as a costly and potentially cumbersome operational element. While internal policies may outline the knowledge management system as it is supposed to be implemented, real-life application of these policies may be rather far removed from the process laid out in the documents. This research is intended to examine the practical challenges of knowledge management in one of the TEOs in Aotearoa New Zealand.

Otago Polytechnic (OP) began its history in 1870 with the opening of the Dunedin School of Art and is a public New Zealand tertiary educational organisation. Today, OP is a Category 1 education and training provider delivering over 100 programmes in various fields, with qualifications from certificates to doctorate across three campuses: Dunedin, Central Otago, and Central Auckland. Future Skills (FS) was established in September 2000 and has been trading since January 2001. FS is a Category 1 education and training provider in South Auckland and is registered as a Private Training Establishment (PTE) with the New Zealand Qualifications Authority (NZQA). The increased demand for tailored education, specifically for international students led to the Otago Polytechnic and Future Skills partnership in 2012 and the opening of the Otago Polytechnic Auckland International Campus (OPAIC) which will be the subject of the research.

The project aims to identify the current systems and processes of retaining organisational knowledge and learnings at OPAIC. The existing knowledge management system and analysing the mechanisms used to transfer this knowledge to new employees was the focus. The situation was further complicated by the ongoing Review of Vocational Education (RoVE), a process that is intended to centralise the existing 16 polytechnics as a single organisation– Te Pukenga. Even though OPAIC has its employees, it still benefits from OP's employee's expertise and capabilities and a disruption of this organisational link is likely to result in potential loss of organisational knowledge if not managed effectively. The project examined three knowledge transfer scenarios: induction and onboarding of new employees, the transition of existing employees into new roles, and transferring operational knowledge within existing teams/departments.

WHAT IS KNOWLEDGE IN TERTIARY EDUCATION ORGANISATIONS

Knowledge can be considered to have two dimensions: tacit and explicit. Each behaves slightly differently during the knowledge-sharing process (Nonaka & Takeuchi, 1995). The explicit knowledge is easily transferable and communicated, often being embedded in written structures, strategies, norms, and policies (Krome-Hamilton, 2005/2006). Tacit knowledge is embedded in individuals through their skills, habits and experience, and cognition such as insights, values, and perspectives. Szulanski (1996) calls this "sticky knowledge" as it is attached to the human mind and is tricky to extract. Knowledge needs to be accessible, communicated, and enhanced to be valuable. An organisation can retain the tacit knowledge through active participation of individuals in the organisational routines and design (Krome-Hamilton, 2006) and through embedding incremental knowledge sharing in organisational culture (Biloslavo & Trnavčcevič, 2007).

Due to the intangible nature of tacit knowledge, converting it into explicit knowledge to create organisational memory becomes a challenge (Gold, Mahotra & Segars, 2001). At the same time, Marshall & Brandy (2001) argue that by coding and storing the tacit knowledge in repositories it strips off its fundamental value since the tacit knowledge is embedded in the specific contexts of social action. But the transition may be, in fact, a critical step towards preserving organisational knowledge and the heart of a knowledge management system (Ardun et al., 2013).

There are two perspectives of knowledge in HE organisations that can be distinguished. One is the academic knowledge, the primary purpose of HE organisations, and the result from learning and teaching activities (Sedziuvienne & Vveinhardt, 2009). The second perspective is the organisational knowledge, referring to the overall business of an organisation, its strategies, strengths, and weaknesses (Shams, Rad & Hooshmand, 2009). Through the process of knowledge sharing, academic organisations are inclined to guide and coach employees for the advancement of career prospects. However, a study focused on key dimensions of knowledge sharing concluded that academic organisations need to learn from the business sector to promote a culture of knowledge sharing to enhance their productivity (Ahmed, Akhtar & Mallick, 2013).

CURRENT STUDY

This project is not focusing on the academic knowledge perspective. It concentrates on the operational side of organisational knowledge, looking at the strategies used to retain and transfer knowledge within the organisation for efficiency and successful outcomes. This project is not centring on any existing models of knowledge management, but rather engaging through the grounded theory approach in an attempt to identify an appropriate knowledge management system for OPAIC.

To gain a more in-depth understanding of the processes used in retaining and transferring the organisation's knowledge, it carried out semi-structured interviews with employees in different key roles to collate the necessary primary qualitative data. Five OPAIC employees representing approximately ten percent of all full-time employees agreed to take part following an e-mail invitation. All employee interviewees s had been working in the organisation for at least half a year, including managers who had been appointed to new or additional roles and had worked for the organisation for more than one year.

The interview questions were structured into three main topics. The first looked at background information, including questions about their tasks, interpretation of organisational culture, their responsibilities, and their ideas on departmental induction and onboarding. The second theme investigated problem-solving mechanics, specifically into the means of alerting employees of issues as they appear and are resolved, and the information required to facilitate organisational problem-solving. Lastly, major strategies for collecting information, the weaknesses and strengths of current strategies, and the methods used to communicate with employees of the organisation. Thematic analysis of the responses further identified three key topics: communication across the organisation, individual preferences of working, and information/knowledge accessibility.

One of the challenges identified related to the unique situation at OPAIC in the fact that there are three different sets of values presented to employees. Each of the organisations (OP, OPAIC, and FS) have their values and guiding principles. Although most are OPAIC employees s, many of them are required to collaborate with OP and FS employees to complete their work. Employees identify with values and actions (Personal communication, 2020) and the fact that there are three different sets of values communicated confuses them and they cannot identify with a clear vision. One of the participants stated: "We've got OPAIC values, and they're not the same as the OP values. I couldn't make sense of that at all and there is no answer for that. So, I think at a very fundamental level because culture is values and action. And if we're referring to our values, we need to know which ones".

Communication also becomes challenging when employees need to collaborate with colleagues at OP Dunedin or FS. There are certain aspects of the day-to-day work that need joint efforts from both organisations. The fact that all three organisations have a different organisational structure makes it more difficult to complete work and adds to the workload. It is not always clear to OPAIC employees who should they contact at the other organisations for various tasks or information. Each organisation assumes that the other one is aware of all actions, processes, and strategies needed to complete their work or assume they follow the same ones. There are various processes and essential tasks carried out by OP employees because they have the capability and means to do it. However, with situations when the structure of the organisation is changing and employees leave, essential tasks are being overlooked, creating future problems that could be prevented.

For knowledge to be transferred within an organisation is necessary and sometimes sufficient to identify topics and knowing who to call (Personal communication, 2020). Even though OPAIC is a small organisation, interviewees agreed that it is not always clear who does what and who to contact for specific information. The process used to identify the experts and those members with the needed information is valuable since knowledge and expertise are people bound and people change roles and responsibilities within the organisation (Personal communication, 2020). With the lack of clear and unified structure in processes across the organisation and because of individual preferences of working, people approach different strategies for completing tasks and actions differently.

At OPAIC, it became common practice for each team to adopt and create processes and work according to individual preferences (Personal communication, 2020). Although the interviewees appreciated the benefits of adopting a preferred style of working, they also acknowledged its limitations. In certain situations, having to comply with each request, for example, would add to the workload and double the tasks. The same report or information may be requested in a different format from different parties, be it from within the organisation or from the partner organisations. A recent organisational restructure did not help. Teams/departments had to readjust to each managerial style and change their processes based on the new manager's preference. These challenges directly affect the possibilities of having seamless and structured knowledge management. Table 1 provides a list of identified organisational issues and their direct impact on the knowledge management systems in their current state.

Table 1 Diagnosis of Knowledge Management (KM) issues at OPAIC

ISSUES	CHALLENGES FROM A KM PERSPECTIVE
Employees mentioned the heavy workload and lack of time.	Key knowledge is overlooked and not documented.
Reacting to urgencies rather than preventing them.	Lack of strategy and planning.
Employees are sensitive to their own and others' preferences when it comes to accomplishing a task or a report.	No systematic way of reporting at the organisational level.
Key employees leaving the organisation.	With no systematic and strategic planning in retaining knowledge, knowledge is lost.
OPAIC does not have a unified standard of retaining knowledge and documenting lessons learned.	Each manager will have their way of documenting lessons learned and key knowledge may be lost as people have different views of what is important; knowledge is not appropriately defined, captured, and retained.
Too many systems and applications in use.	Employees were confused and invest more time in completing a task because of multiple system limitations.

Employees perceive differently the importance and the need for a streamlined process or capturing knowledge with the vision of transferring it to others. A mechanism may seem very easy and logical for one person or a team/department, while for another, the same process may seem very complicated (Personal communication, 2020). An interviewee mentioned that "it takes a long time to find where all information it was stored and the weaknesses are that people will have personal preferences on where they store the information". Each individual will assess problems and solutions from a different perspective (Personal communication, 2020). As a result the strategies used to retain and transfer knowledge within the organisation are also engaged through the lens of individual preferences (Personal communication, 2020). What an employee will consider necessary to capture as organisational learning and register it as valuable knowledge and data, another one may consider the same information unimportant or just common sense and will not record it (Personal communication, 2020).

The ambiguity of naming conventions of documents was another element identified by interviewees as challenging in certain situations. There were aware that some file accessibility is dependent on their role, however, they needed to understand what folders they have access to and how to navigate. According to interviewees, this was not always the case. For example, they were often added to Microsoft Teams groups without receiving an overview of the structure of storing files and collaborating within that group. Not knowing which version of the document is the more recent one adds to the challenge of understating the information you have access to (Personal communication, 2020).

Little attention is given to deleting invalid or outdated information from the organisation's database, becoming challenging to identify the most recent and relevant information. Too much information available for employees might create similar problems to the lack of information (Corbitt, 2005). This statement is also reinforced by Rich and Duchessi (2005) when they found that when the collection of accepted knowledge grew, the quality in the knowledge shared was not equal to the quantity of knowledge available.

More information does not always mean better information or knowledge (Personal communication, 2020). To mitigate the risk of accumulating countless and invaluable knowledge an organisation needs to include a selective process for accepting contributions alongside a vetting and reviewing process of the content in the system (Personal communication, 2020). According to the interviewees, the selection of data storage is done at the departmental level. The vast array of knowledge management instruments is presented in Table 2.

Table 2 Knowledge Management Components Identified at OPAIC

REPOSITORY	SYSTEM / APPLICATION	PURPOSE AND CONTENT
Document-based		Within the digital era, there are fewer and fewer physical archives. The only documents still stored in a physical form are based on individual preference and they are stored in digital format as well. Paper exams.
Digital	Shared Drive.	Programme Documents; programme history; course details; Accreditation details. (OP operated).
	Enable Human Resources (HR).	HR management system; operational policies; guidelines; performance review system; (FS operated).
	Moodle.	Learning management system; academic courses; delivery planning; communication with students.

REPOSITORY	SYSTEM / APPLICATION	PURPOSE AND CONTENT
Digital	Microsoft 365 applications: – Microsoft Teams. – Dynamics 365 (CRM). – SharePoint. – OneDrive.	Hub for teamwork; meetings; content collaboration. Case management system. Document library. Document library
	EBS.	Student management system (OP operated).
	Tūhono.	Content management and staff hub; academic policies, news, access to tools.
	EvaluationKit.	Confidential student feedback tool about their experiences of learning and teaching (OP operated.)
	Xero. Approval Max. DataPay Payroll.	Finance Apps (FS operated).
	Vault.	Safety and Wellbeing. (OP operated).
	Academic Dashboard. Moderation App. Student Support App. Lecturer Referral. Industry Projects App. Sales Dashboard. Registry Dashboard. Academic Staff Dashboard. EFTS Dashboard. New Student Dashboard.	In house Apps developed for reporting and data analysis.
Self		E-mail archives, files, In head memory, etc.

The strength of OPAIC identified by interviewees is its people and the agility in adapting to the unpredictable environment. Interviewees were also impressed with the fact that the organisation is always open for improvement and to implement lessons learned and best practices identified.

While there was appreciation for the agility of the organisation in adapting to change, the weakness of the organisation emphasised by interviewees was the lack of sound understanding of roles and functions of various colleagues or working groups. Even though they do recognise the uncertain times, the organisation is going through and the fact that there cannot be clear answers to certain questions, the need for an overall plan was voiced. Interviewees felt that they could add more value to the organisation if they could see the direction and how things evolve.

IMPLICATIONS AND CONCLUSIONS

Following the analysis of data collected during the project, it can be concluded that OPAIC does have knowledge management system up to a certain degree, however, it is incomplete and not well defined at the organisation level. Every team/ department has developed its knowledge management system for day-to-day work and the same approach and strategy is applied when retaining or transferring knowledge.

However, when interviewees were asked about a knowledge management system at the organisational level, it was identified that gaps need to be addressed. Some of the gaps in the knowledge management systems at OPAIC may have been caused by two restructures and their effects in less than 12 months, however, the project was not focused on those effects.

Knowledge management is not a project; it is rather a continuum behaviour and culture (Anand, et al., 2005). Knowledge management is a way of working and not a distinct task to be accomplished. Any approach to a knowledge management system needs a high level of commitment from within the organisation for the system to work. Since the benefits resulting from such an initiative are often subtle and hard to measure, addressing the existing problems can prove to be a good initiative.

It would be beneficial to all the organisations discussed in the project to invest time to create a universally accessible flowchart of organisational knowledge that depicts how the knowledge gets recorded across various systems and eliminate the systems that do not fit. It is important to gradually work through every team/department and make sure that the processes fit the designated structure. While this is not a quick and easy fix, there is currently no simple way to address the issues. Solving the current problems would result in an intangible benefit such as more content employee, therefore leading to increased engagement and productivity. Members of the organisation also need to find benefits to engaging their effort.

In-depth research into the capabilities engaged from partner organisations may be deemed useful with the intention of building those capabilities and resources within OPAIC. Additionally, a thorough analysis of good practices and lessons learned across each team/department at OPAIC could further develop a cultural habit of sharing knowledge and information.

Patricia Ostate is an experienced professional with a proven history of working in the tertiary education and nonprofit organisation management industry. Patricia started her research journey with a bachelor's degree in Psychology, a master's degree in Applied Management and a Postgraduate in Forensic Psychology. Patricia's current focus is on knowledge management systems and product development research, looking at opportunities to start a PhD in Organizational Psychology.

Barnaby Pace is a Principal Lecturer are Otago Polytechnic Auckland International Campus where he teaches Research Methodologies and Analytics courses for Applied Management students. He holds qualifications in Psychology, Cognitive Science, Education and Quality Systems.

Yury Zhukiv journey in Aotearoa started when he decided to pursue of his research interests in deliberative democracy and e-government at the University of Auckland. He has been working in tertiary education alongside other jobs for over fifteen years. Yury has a research Master's degree and is working on his PhD at the moment.

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https://doi.org/10.34074/rere.00103

Article

EXPERIENTIAL STUDENT-CENTRED LEARNING AND TEACHING

Kathiravelu Ganeshan, Marianne Cherrington, & Nemanja Vukikjevikj

ABSTRACT

Student-centred learning and teaching (SCLT) is gaining interest internationally in tertiary education institutions. SCLT is an indicator of quality assessment in higher education, and scholars and educators are seeking ways to implement SCLT to boost engagement, participation, agency, and confidence in students. This paper considers some of the practical benefits of SCLT and discusses a unique inter-departmental experiential project, used to augment assessment in an international tertiary campus. Working through stops and starts with conversations and agile pivots presented many perspectives on experiential SCLT approaches. Evidence is mounting that active student learning practices facilitate more meaningful or deeper learning, that is retained longer. The novel contribution of this paper is the experiential link with SCLT paradigms used with diverse, agile student-led teams. With planning and perseverance, exceptional real-life learning can be achieved. Moreover, the underlying capabilities that are developed, support students to be highly employable graduates.

Keywords: student-centred learning and teaching, sustainability, experiential learning, agile employability

INTRODUCTION

The phrase ‘Student-centred learning and teaching’ (SCLT) is used broadly in educational literature, linked to related topics such as experiential learning, flexible learning, and self-regulated learning (Järvenoja et al., 2015). Frank Herbert Hayward advanced the concept of SCLT more than a century ago (Hayward, 1905) (Brett, 2012); John Dewey (1956) focused on how students learn, informing, and advancing student-centred ideas. Today, SCLT is a point of distinction in tertiary teaching (Klemenčič, 2017), (Zhang & Bayley, 2019). Besides being engaged in learning, students are said to become more confident in non-academic areas; their overall behaviour, attitudes, interests, and self-confidence are elevated (Din & Wheatley, 2007).

Currently, awareness of SCLT is mounting. With accruing evidence, research shows that instructional quality is more likely achievable with SCLT (Hoidn & Klemenčič, 2020), yet SCTL has a wide range of definitions with no consensus. Furthermore, SCLT can vary conceptually between educators (Hodson, 2002). There is a need for comparative research on SCLT and its processes; this is a vulnerability (Klemenčič, 2017). SCLT may be ill-defined, but it becomes meaningful and powerful in context, as it promotes self-efficacy, deep learning strategies, engagement, and agency and at its core, SCLT focuses on student needs, with customised learning pathways (Klemenčič, 2017).

SCLT techniques can supplement or replace lectures with active learning strategies that engage students in discovery (Handelsman et al., 2004). It can be difficult to achieve ‘learning outcomes’ with SCLT, however, Information Technology (IT) courses are particularly suited to Living Curriculum pedagogy; students learn via collaboration, inquiry, and reflection (Hodson, 2002). This is relevant with ever-changing technologies and dynamic hybrid learning and teaching contexts (Ganeshan, 2021) and SCLT approaches reinforce active inquiry and problem-solving.

This paper considers SCLT as a basis for an experiential project at Otago Polytechnic Auckland International Campus (OPAIC) in New Zealand using key scholarly SCLT sources chosen by The Global Polytechnic Alliance (GPA) Global Partnerships (2021). The project method aligns with the latest SCLT research, which defines SCLT as an all-encompassing approach comprised of three dimensions (Klemenčič, 2017) (Fink, 2013):

1. SCLT In-class: As a Pedagogic Concept to Foster Individual Learning
2. SCLT Out-of-class: As a Lever Supporting Learning Systems
3. SCLT as an Organisational Mindset: A Cultural Framework for Developing Communities of Learning

The three dimensions were considered in an applied setting to discover the practical benefits of SCLT in a unique inter-departmental experiential project, used to augment assessment at OPAIC. Working through stops and starts while utilising agile pivots, presented various perspectives on experiential SCLT approaches, discussed in the next section. Then, various diverse views were reflected upon within the planned learning and teaching framework. The paper outlines the first two SCLT dimensions as platforms for the third dimension, with the intention of inculcating SCLT as an organisational mindset. The conclusion encapsulates the learning and capabilities fostered as a result of the experiential SCLT project, producing more proficient and employable graduates, which aligns with the vision of OPAIC.

Evidence is mounting that active learning practices facilitate more meaningful or deeper learning, that is retained longer (Chawla & Cherrington, 2020). The novel contribution of this paper is the experiential link with SCLT paradigms that were used with diverse, agile student-led teams. Evidence revealed, that with planning and perseverance, outstanding real-life learning can be achieved using SCLT in-class alongside SCLT out-of-class; a shift to SCLT Communities of Learning requires a long-term vision, that can support students becoming highly employable graduates.

METHODOLOGY

As part of a Master of Professional Practice, a number of OPAIC Campus Sustainability Initiatives (CSI), were evaluated for efficacy via stakeholder feedback. This reflective paper resulted from the initiation of Student Sustainability Projects (SSP), which are interdepartmental research and assessment-linked projects. Many of the feedback comments and reflections are from the students of a Bachelor of Information Technology class and Masters of Applied Management students. Further observations and reflection are given by the lecturers of the papers for context and perspective. The SSP model agile technology, applied management processes and tools and industry project management techniques. Both comparative and quantitative metrics were measured regarding participation (number and type) and outputs achieved (number and type); stakeholder feedback was also garnered and evaluated. Ethics approval was granted (application AIC85).

From stakeholder feedback, SCLT was organically and continually improved using agile and Plan-Do-Check-Act (PDCA) processes (Sangpikul, 2017); eventually a novel student-led SCLT in-class facilitation pilot was trialled and a SCLT facilitation pilot was launched where senior students and alumni students 'guest lectured' to grow an SCLT culture on campus.

Key results and reflections from this SSP are summarised in this paper; fundamental reflective perspectives are provided from applied management and information technology (IT) students as participants SCLT and from the both lecturers working interdepartmentally.

EUREKA! AN EXPERIENTIAL SCLT PROJECT

The last term of 2020 at OPAIC would encapsulate a Strategic Objectives for Sustainable Practice (SOSP) learning and teaching pilot. OPAIC had a mandate to embed sustainability in all learning and teaching 'in all that we do' (Matthews, 2014). This is interpreted in various ways throughout the campus (Mann 2011), and the SOSP aim:

– To develop sustainable practitioners.

– To model evidence-based sustainable practice in our operations.

– To encourage communities and businesses to embed sustainable practice.

– To ensure our actions benefit our communities.

OPAIC was two years into an experiential teaching resurgence and hotspots of collaborative learning and teaching initiatives were incubating (Cherrington et al, 2021c). Over a coffee conversation, the Information Technology (IT) 'Studio Applications' lecturer stated that Master of Applied Management (Masters) IT students in the 'Managing Change and Adversity' course were looking for applied sustainability projects. A means of combining the projects with diverse teams was found and three campus sustainability applications (Apps) were devised:

– App 1: Application to showcase Student Portfolios on Sustainability (SPS)

– App 2: Web App to record/monitor OPAIC Sustainability Initiatives Operations/ Facilities (SIOF).

– App 3: Web application to Promote Sustainable Practices (PSP) at OPAIC

The courses from the IT and Masters were reviewed to ensure outcomes and capabilities would be appropriately assessed. Although the third dimension of SCLT as an organisational mindset was an implied outcome, the immediate aim was to support the development of sustainable practitioners who would use App 1, model evidence-based sustainable practice in OPAIC operations with App 2 and encourage communities and businesses to embed sustainable practice. Sustainability stories would be uploaded onto the OPAIC website using App 3. It was an ambitious plan, however, OPAIC is a dynamic, international campus, skilled at delivering agile, continual improvement.

The IT and Masters' course assessments were delivered with experiential SCLT in-class and SCLT out-of-class activities. Time was allocated to enable IT and Masters' students to meet in-class to progress the App projects; they were encouraged to have out-of-class meetings as well (often occurring as working lunches). SCLT elements were almost immediately apparent, and lecturers awaited signs or opportunities to expand the SCLT approach outside of the pilot project and into the rest of OPAIC. The Masters students approached the project with 'nervous excitement' and the IT students began devising prototypes:

App 1: Web application for Student Portfolios on Sustainability (SPS)

In this project, four students enrolled in the Bachelor of Information Technology (BIT) successfully developed and deployed a Web Application (App) complete with a(NoSQL) database (MongoDB) using a hybrid software development methodology (see Appendix, Figure 1). Once refined, App 1 could build OPAIC Student Portfolios on Sustainability, from the many papers, projects, and sustainability initiatives they were involved in.

App 2: Web application to record/monitor Sustainability Initiatives at OPAIC Operations and Facilities (SIOF).

In this project, three BIT students successfully developed and deployed a Web App to track and display the usage of consumables like power and water at OPAIC. The App produced a sample graph that could be modified for any number of sustainability operations initiatives (see Appendix, Figure 2). With refinement, the OPAIC Operations and Facilities team could track and display the usage of other consumables such as paper.

This IT student team, like the App 1, also used a NoSQL database (MongoDB). They used Systematic Customer Resolution Unravelling Meetings with weekly sprints and Monday.com for project management. This group had the support of an adjunct team member who had several years of prior industry experience assisting them, including acting as their Agile SCRUM master.

App 3: Web application to Promote Sustainable Practices (PSP) at AIC.

Sustainability is embedded in all that we do at OPAIC, so communications are imperative. Students framed some details of this project using visualisations (see Appendix, Figures 3 and 4). A key feature of the Web App was to promote user sustainability stories, especially across campus, and to detail and evidence Student Portfolios on Sustainability. It would also repository for project work focused on Sustainability Initiatives at OPAIC in Operations and Facilities department.

Role of the Masters of Applied Management Students:

Level 9 students studying the 'Managing Change and Adversity' course would act as Product Owners in the Agile Scrum, researching necessary information regarding sustainability App requirements. IT students rotated roles as Scrum Master within their Scrum Team; their IT facilitator acted as an Agile Mentor to progress learning.

The project would model real work-based learning where IT professionals are meant to work alongside departmental managers to support outcomes. Management case studies abound, detailing and decrying failed IT projects. Repeatedly, management fails to articulate the requirements of technologies, expecting IT expertise to advise and inform organisations despite the insufficient context, and project managers' perceived control over projects can influence how they assess IT projects (Taherdoost & Keshavarzsaleh, 2015).

IT and management should cohabit and collaborate (Cherrington et al, 2020). Today's workplace is highly interactive and technology-enhanced; individually oriented perspectives and static learning are outmoded (Järvenoja et al., 2015). At OPAIC, the teaching departments are segregated; despite open plan learning and teaching spaces, collaborations are limited. A conversational environment needed to be developed (Zaffron & Logan, 2011).

The Studio Apps project used experiential SCLT as a future-forward vehicle to transform outcomes for students and lecturers while embedding sustainability and creating pathways towards employability after graduation.

DIVERSE AND EVOLVING PERSPECTIVES

The three IT teams understood that they would be concentrating on the technical part of the App projects; they developed the App which would present the data. The Masters' students would meet regularly with their assigned teams, complete research, and supply necessary information on how and what to display.

For the first few weeks, the focus was on researching different tools for App development, while counterparts in the Masters studied the sustainability initiatives to supply relevant data (Zhukov & Cherrington, 2020). Within a few weeks, prototypes were developed as envisioned and presented to the Masters students.

However, soon after the IT students met with management students and there was almost a revolution with the IT students, saying repeatedly that the Masters students, and even their lecturer, "knew nothing" and did not want to have anything to do with these projects. Some Masters students 'walked out' on the presentation on business intelligence, data mining, and data visualisation partway, not realising how relevant the topics were to change management (Cherrington et al, 2021c; 2021d); they surely did not appear to 'manage adversity'!

After several meetings and further discussions, the IT students realised that real-world clients are not coders who understand coding or Apps, but people whose knowledge, expertise and skills are in other areas; they knew lots of things that the IT students knew nothing about. The resulting complex conversations were priceless, building confidence that would support student workplace transitions (Shukla & Ganeshan, 2011).

The Masters students did not understand the technical aspects of the Apps. This was not due to a lack of explanation, but simply because IT was not a field in which these students had experience. Worse, the Masters students did not find technology or sustainability initiatives relevant to 'managing change and adversity. The global Covid-19 pandemic had already upturned lives; adversity was a daily reality for OPAIC international students. Back in class, theories of change and their suitability in various contexts grounded the agile experiential projects; Masters students focused on the assessment rubric only.

The IT student teams kept moving forward; they took the opportunity to learn about working within a simulated work environment. The 'people problems' were labelled 'not everyone has a similar educational background or is in the same field of study', so they utilised their interpretations. They realised they had to pivot their approach when communicating with non-IT people (or clients). The IT students had to find a way to explain in a mutually understood language what the Apps were doing. The Masters students just wanted good grades, stating that it was 'safer to create an assessment report', that the projects were not related to their learning and that sustainability was a subject they would study next year.

It was a good learning experience that would not otherwise have been available to us in a learning environment. Students are usually surrounded by peers studying the same courses for the same qualification. A positive result was that the Masters students did give us feedback on the User Interface (UI) and what would look and feel better. This in turn helped the IT students make adjustments to the Apps making them more user-friendly. This feedback was seen as an example of highly valuable, real-world feedback and their opinion was provided from a set of fresh eyes that had a different perspective than the IT students, which is highly valuable in ensuring the "customers" requirements are met.

The feedback was vocal and informative. At times, SCLT can be confronting, and experiential learning can seem unstructured or 'aimless' (Cherrington, 2020). IT students were already very familiar with this style of learning, Masters students were not. They are not agile. The speed at which the IT students progressed and overcame barriers was fast and furious. Masters students went into verbose report mode; they complained to their Head of the Department. SCLT needs a more robust framework so that students do not feel vulnerable (Pace & Cherrington, 2020).

More robust SCLT frameworks are noted in SCLT literature, with the central theme 'learner-centred teaching in a non-learner-centred world', coined from participants' experiential recollections (Oyelana et al., p. 118, 2018). When challenging the status quo, some students and lecturers revert to safer norms and retreat to known paradigms (Lubicz-Nawrocka, 2017).

DIFFERENT AND DEVELOPING RESULTS

App 1. Student Portfolios on Sustainability

This IT students had moderate success in terms of App development progress. They felt that they gained valuable experience in team management, modelling client-based scenarios using project management methodologies. They practiced self-learning while discovering new frameworks and applied technologies.

App 2. Web application to record/monitor Sustainability Initiatives at OPAIC Operations and Facilities (SIOF).

– This IT student team had the best App outcome. Some of the feedback from the IT students is provided below.
– This study block was such an exciting experience! We worked in a team to build a web application prototype to measure and monitor sustainability in OPAIC.
– In a group project, the first thing that you must learn is how to work together as a group; this can vary, depending on who your teammates are.
– This project was new territory for me. The projects and subjects I had before were all based on individual work, so adjusting myself and finding my place within the team was very interesting.
– We had not worked with such diverse team members before; in the beginning, we were learning each other's personalities and skills, as well as self-studying to apply new knowledge to the project.

App 3. Web application to Promote Sustainable Practices (PSP) at AIC.

This IT student team struggled throughout the project in the 'resistant' manner of the Masters students. Yet the concluding slide of the students' final presentation revealed that they had 'picked up' important experience while maintaining a positive atmosphere to work with business students, team management, etc.

EXPERIENTIAL SCLT AND AGILE PROBLEM SOLVING

SCLT needs planning by staff (Cherrington et al, 2021b). A collaborative effort with stakeholders is paramount to the successful implementation of learner-centred teaching in practice settings (Oyelana et al., p. 118. 2018).

Mid-project, a lot of confusion lifted for the IT students. Management students remained disengaged, but they continued to meet and give feedback on the UI to the IT students, who got on with the job; the UI had a better look and feel from a user perspective. This in turn helped the IT students make iterative adjustments; the App became more user-friendly. A 'set of fresh eyes' with a different perspective was valuable for the IT students.

As the project was coming to a close, these interactions became routine. The IT students took the project further, developing the prototype and improving it using the Management students' user stories and feedback. By the end of the project, a complete App 2 prototype had been developed which displayed all the information needed by the users. Unfortunately, the Masters students were not able to obtain the data for the electricity and water usage; IT students sourced sample data to evidence the project's performance. Overall, the App developers found it a valuable learning experience, not usually available during term assessment.

IT student teams felt that overall, the eight-week project had been challenging, yet fun. They got to experience what working in the real world would be like and how working with clients to gain an understanding of what they wanted from their Web-App and how to adapt the design. This comment bodes well, given that one aim of experiential SCLT at OPAIC was that students are more 'work-ready' and employable upon graduation.

The IT students felt that the eight-week experience was 'new' by simulating real-life scenarios by working in a team. Although some IT students were at first doubtful of their abilities and how they could contribute to the project team, as the weeks went by, they offered input into everything. They were confident in what they knew and helped the team reach the end goal of completing the project. The most difficult part was working in a group and finding ways to collaborate, wondering whether everyone in the group would be appreciative of the work and effort that was made out-of-class. Some IT students had no prior experience in databases and had not yet done the Web 2 courses in the BIT. But this was all the more reason to work in varied teams with various levels of expertise to gain diverse perspectives and understanding (Cherrington et al, 2020b).

The requirement to work in groups and teams is common in the New Zealand tertiary curriculum. This mimics the workplace. Understanding the ebbs and flows of individual input toward team objectives is a performance conundrum that causes tension in many organisations in light of sustainable HR (Radvila & Šilingienė, 2020).

A side note that all the Masters students were all female. Was this part of their risk aversion (Cherrington et al, 2021)? Did pandemic uncertainties focus students on grades versus learning? One exercise in the Managing Change and Adversity course focused on the gender pay gap, with an g on screen graphic presented as students arrived in class; 'where does that happen?' queried one of the students. 'Everywhere'… as it was a global, by nation, graph (Economic inequality by gender, 2021). We then discussed risk versus reward and the time value of money. In the end, these Masters' students chose to work more on standard assessment strategies than the experiential SCLT opportunity that supported their learning. Perhaps agile methods have many applications, beyond IT.

The third dimension of SCLT is powerful; decisive and diverse thinking is a vital capability (Thorneycroft, 2020), especially as the world becomes more volatile, uncertain, complex, and ambiguous () (Bennis & Nanus, 1985).

Another IT student reflected that all in all, this block helped with interpersonal skills, time management skills, and how to work in a team. Also, learning how NoSQL database (MongoDB) works in the IT industry nowadays gave an in-depth knowledge about express.js. Credit was given to the IT team for imparting several new learnings and for their continual motivation. It was said by the IT team, that without teamwork the project would not have been completed.

Yet another response was about being 'concerned about having valuable contributions in the team'. As the weeks progressed, these reservations relaxed. By researching and sharing findings, the IT students found 'there is a solution for most problems, it just needs to be found'. A few IT students were not keen to learn Studio 3, thinking it would be a repetition of what had been done in another course. Their fears were unfounded. It was a great learning experience in general with new skills learned in NoSQL database MongoDB, express.js, and node.js that they will be able to use in the future.

CONCLUSION AND FUTURE WORK

It is fair to say that experiential student-centred learning and teaching requires energy, planning, and trust, to achieve outcomes with true learning that is framed within curriculum contexts. At times, harsh lessons and realities were revealed; this is best done in a classroom environment where students feel safe, while challenged.

This experiential SCLT project was both 'scary and exciting'. The opportunity to further enhance experiential learning and bring about more inter-departmental collaboration between lecturers was irresistible and students worked at all levels and capabilities within the curriculum. Added to this was the excitement that OPAIC promoted sustainable practices; all three of the projects were linked to the OPAIC Strategic Objectives for Sustainable Practice – skills highly sought after in industry.

For most IT students this was the first time they had worked on team projects, and this caused anxiety and confusion. For Masters students, agile techniques were not in their experiential repertoire and designing prototypes was not part of their post-graduate curriculum. However, they were well versed in writing researched reports.

Luckily, all lecturers involved had decades of experience in academia. Knowing that employment opportunities for international students in a pandemic are limited, lecturers worked together, knowing they were on the right track. There are many challenges in learning and teaching; especially for international students with multiple diversities (Ganeshan, 2010). Perseverance was needed to overcome obstacles. The feedback indicates that this sort of collaboration, based on experiential SCLT, benefits students beyond mere learning outcomes and rubric requirements.

In summary, this was a novel experience for both students and lecturers. Collaboration with people from different sectors, fields, and backgrounds is what working in industry is about. Students also realised the value of research to frame problems, understand user issues and improve user experience in many sectors. Cohesive project development with IT and future management professionals were part of the beneficial experience.

SCLT is an evolving field and can be challenging. For students who created the three Apps, delivered and project managed using agile methods, the learning will not be forgotten.

It is challenging to work inter-departmentally, with defined outcomes and scheduling realities, but the 'real-world' capabilities that were developed are invaluable and students connected the classroom learning with other opportunities, that could lead to project work, internships, or job offers. Finding opportunities to run another such experiential SCLT interdepartmental initiative are currently being explored.

It is interesting to note that Harvard Business Publishing Education presents a useful framework for meaningful course design for the best possible learning experiences for students, on-campus and/or online (Austin, 2021). It would be interesting to use this framework in the next iteration of interdepartmental experiential SCLT online and/or on-campus. The framework suggests the most meaningful learning experiences are those in which students:

1. Are actively engaged.
2. Feel responsible for their learning.
3. Have significant control over the experience (The Faculty Lounge, 2020).

Experiential SCLT aligns with this framework, which can use technology to suit asynchronous class structures. In the framework, it is suggested that the lecturers embed four concepts:

1. **Struggle:** Present a challenge for students to grapple with.
2. **Structure:** Encourage students to categorise what they know.
3. **Systemise:** Guide students through connecting structured information.
4. **Synthesise**: Establish consensus and draw conclusions.

With an SCLT framework, it is likely that students will create a narrative and space to discover on their own.

Kathiravelu Ganeshan has extensive experience teaching at universities, polytechnics and private colleges in Australia, New Zealand, Singapore, Sri Lanka, and the USA. He has more than sixty publications in computing and education. He is passionate about changing the education paradigm. **ORCID: 0000-0003-2620-4784**

Marianne Cherrington is a Principal Lecturer at Otago Polytechnic AIC with a focus on Sustainability and Computer Science and Analytics. A lecturer in disruptive innovation, her research into machine learning feature selection algorithms applies in many fields, producing interesting collaborations with local and international partners in many disciplines and sectors. **ORCID: 0000-0002-1240-2010**

Nemanja Vukikjevikj is a BIT student and ICT Customer Support Officer at Otago Polytechnic AIC. He has a focus on software development, particularly Web and Game Development. Current research is on sustainability and finding a quantifiable way of showing the organizations progress and efforts on the matter. **ORCID: 0000-0002-5204-6620**

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APPENDIX

Figure 1 App 1 - Hybrid Software Development Methodology

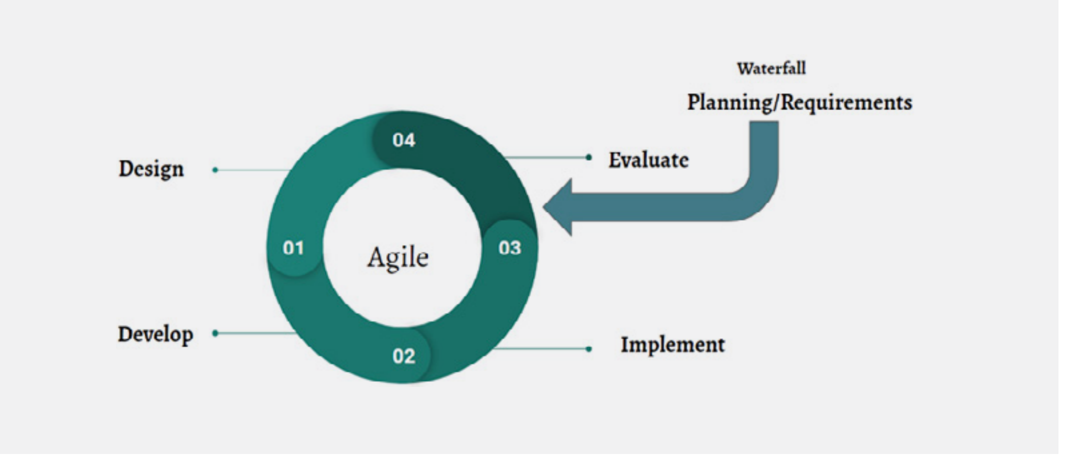


Figure 2 App 2 - Sample Chart Produced by the SIOF Application

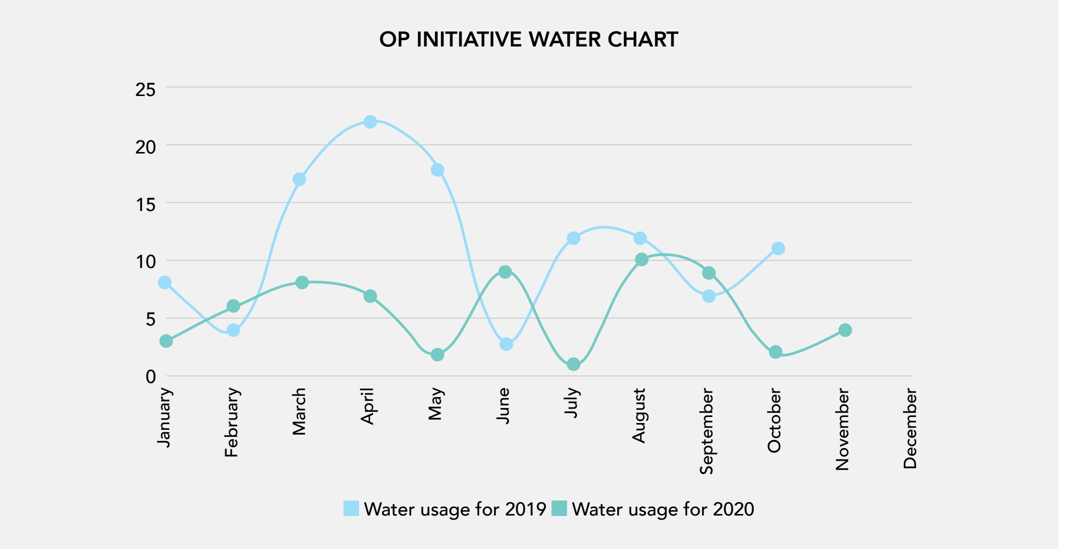


Figure 3 App 3 - Web Application to Promote Sustainable Practices at OPAIC - Overview

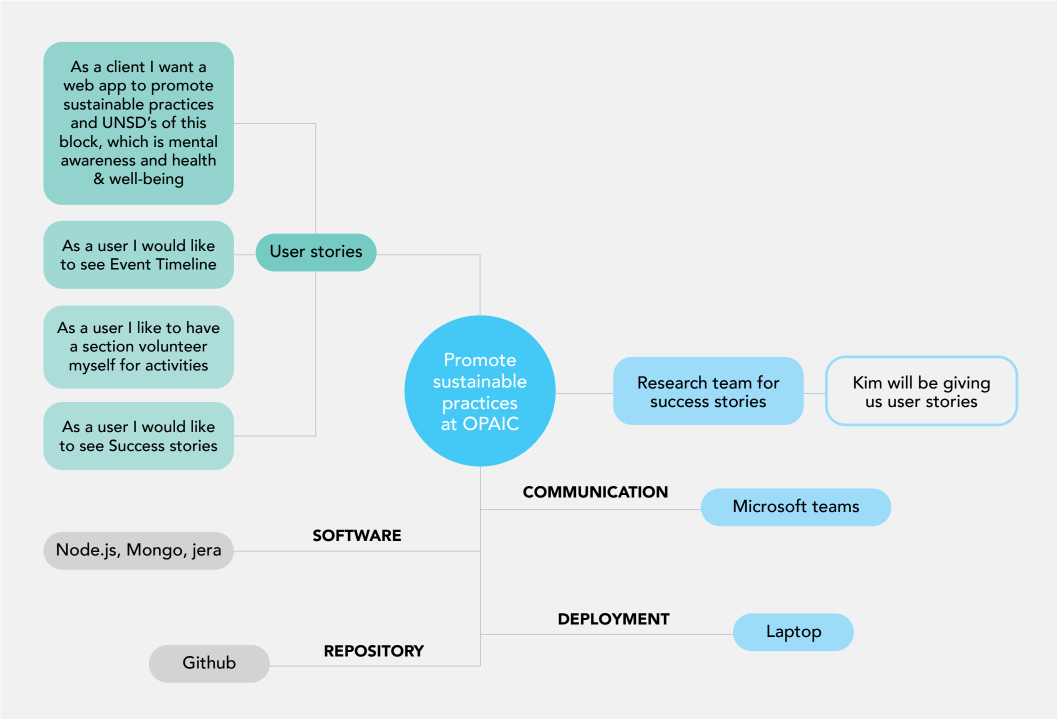
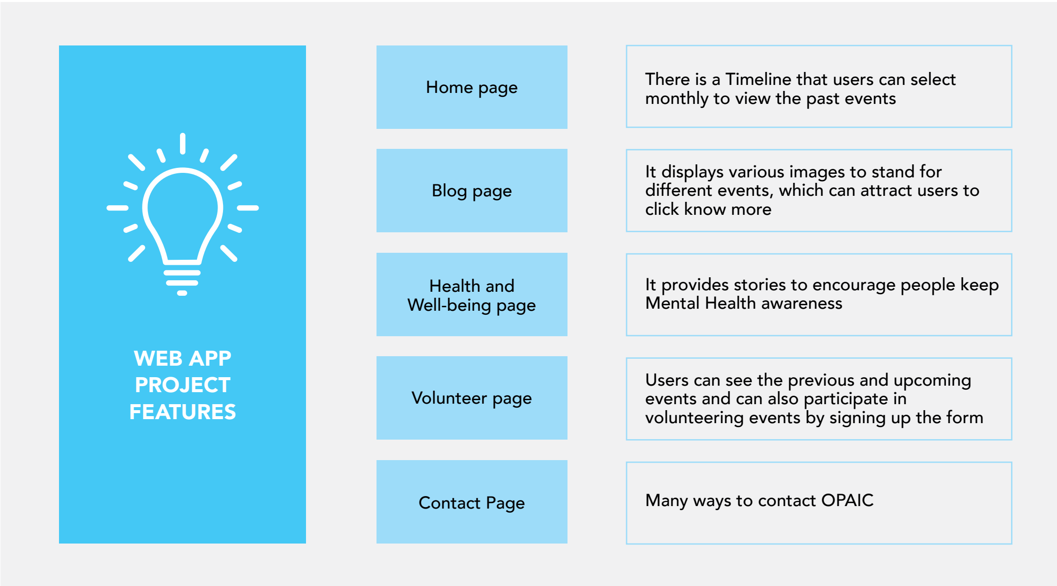


Figure 4 App 3 - Web Application to Promote Sustainable Practices at OPAIC – Project Features



https://doi.org/10.34074/rere.00104

Article

REDESIGNING FORMATIVE ASSIGNMENTS TO INCREASE STUDENT ENGAGEMENT BLENDED LEARNING ENVIRONMENT

Olga Ustinova, Barnaby Pace, and Yury Zhukov

ABSTRACT

In 2020 COVID-19 and continuous lockdowns rapidly increased tertiary educational organisations' interest in online education and student engagement techniques that effectively work for both blended and online delivery modes. Organisations that used to rely heavily on face-to-face delivery started experimenting with activities in their learning management systems to adapt their education methodology to the new realities, and Otago Polytechnic Auckland International Campus was among them. The learning management system used by the organisation to engage with students online was Moodle, which made it the platform of choice for experiments in educational design.

This pilot study examined the use of conditional access to formative activities set up in Moodle as a method of gamifying the course and increasing student engagement. The course selected was Leadership in Action, an elective undergraduate course in the Bachelor of Applied Management undertaken approximately halfway through their three-year programme. The number of activities and resources was significantly reduced and structured into weekly blocks and the students were required to complete the activities in one block to access the next one. Findings indicated that making access conditional on activity completion proves to be an effective technique for improving students' participation. However, it runs the risk of increased anxiety levels in both the students and lecturers beyond the regular levels as the course progresses. The article discusses the pilot study from the perspectives of the Moodle administrator and the course lecturer to provide an implementation roadmap and a holistic reflection on the outcomes.

INTRODUCTION

Since the early 1990s, educational organisations have used different Learning Management Systems (LMSs) such as Moodle, Blackboard, Canvas, etc. to set online courses and ensure students' access to digital materials (Kim et al., 2019). The use of these LMSs has experienced enormous growth since the global COVID-19 pandemic drastically affecting and transforming the way education has been traditionally functioning and led to the biggest "online movement" in the history of education (Li & Lalani, pg. X., 2020).

The reasons for the rapid growth in online education are closely related to the digital transition of other traditionally analogue activities (Anderson & Rainie, 2015; Kim et al., 2019). Just like with other digital tools, online education platforms allow access to courses remotely and at a time when it fits a learner's schedule. (Alves, et al., 2012). Flexibility and convenience are the two factors that have the greatest impact on learners' decisions between traditional and online education (Bouchrika, 2020). This necessitates the inclusion of innovative ways to deliver materials and to interact and collaborate with learners in a digital environment both in real-time and asynchronously so that students and lecturers maximise the benefits of the system (Guo et al., 2018). But the issue of motivating and engaging the students through educational tools remains as critical online as it has always been with analogue education. Lecturers noted that it might be more challenging to engage students, check their progress and understanding in a virtual learning environment (Kandri, 2020).

Otago Polytechnic Auckland International Campus (OPAIC) delivers its educational programmes through a blended learning model that combines face-to-face learning (substituted by online lectures during COVID-19 lockdowns), online learning, authentic work experiences, and student-managed learning (Otago Polytechnic, 2017). The LMS of choice in the tertiary educational organisation (TEO) is Moodle, a free open-source platform enhanced with specialised and targeted add-ons.

Online learning in OPAIC is conducted as a mix of synchronous (real-time lectures in a virtual space) and asynchronous learning (student-managed interaction with online course content when it fits their schedule) (Zhukov & Dai, 2020). Moodle is the main electronic resource for students to engage with learning materials and activities in their own time (asynchronous learning) (Otago Polytechnic Auckland International Campus, 2020). Moodle provides an opportunity to set up, customise and give access to all teaching materials and activities and create a "personalised learning environment" (Moodle, 2020). As Moodle currently has no functionality to ensure a synchronous online learning process (streaming lectures in a virtual space), OPAIC uses Microsoft Teams to deliver online classes and activities during COVID-19 pandemic lockdowns to replace cancelled face-to-face classes.

Currently, there is no set of organisationally accepted tools or techniques being used that can motivate students to work through the course materials. OPAIC Moodle data reveals extremely low learner engagement with the current course content (Personal communication, 2021). Moodle course analysis within the Applied Management Department has shown that most online courses are used to store resources such as PowerPoint presentations, links to articles, and videos. The resources of the LMS are not used in full and are limited to "passive learning", a mode of presenting educational materials where students are supposed to "record and absorb knowledge" (McManus, 2001). This approach to LMS functionality is limited and can be outright damaging for student achievement in the conditions of COVID-19 lockdowns and periods of forced online-only classes (Zhukov & Staples, 2020).

The pilot study was aimed at creating an active learning space within a standard LMS Moodle course where students could collaborate, contribute, and co-create the course content to help achieve more effective learning (Dixson, 2015; Johnson, 2018). There has been a strong positive correlation between higher student achievement and engagement levels that include active learning methods (Freeman, et al., 2014; Donovan, 2005). Additionally, the OPAIC Learning and Teaching Strategic Framework focuses on "creating the conditions for individual learner success and build on OP reputation as an innovative lecturer of high-quality educational opportunities" (Otago Polytechnic, 2017).

DESIGN AND IMPLEMENTATION

The purpose of the pilot study was to redesign the content of one online course using the principles of active learning. A Bachelor of Applied Management undergraduate Leadership in Action course was used as the case. Students were not informed about the study to avoid any possible impact on their online behaviour patterns and consequently their study results. The study team used the analysis, design, development, implementation, and evaluation (ADDIE) approach during the implementation phase to constantly evaluate the effectiveness of implemented activities and techniques and make some adjustments or improvements for next week's delivery. The ADDIE framework has proved its efficiency in developing course materials as in the traditional face-to-face teaching environment (Drljača, et al., 2017) as well as in e-courses design (Güner & Taçgın, 2014; Ness & Greer, 2016).

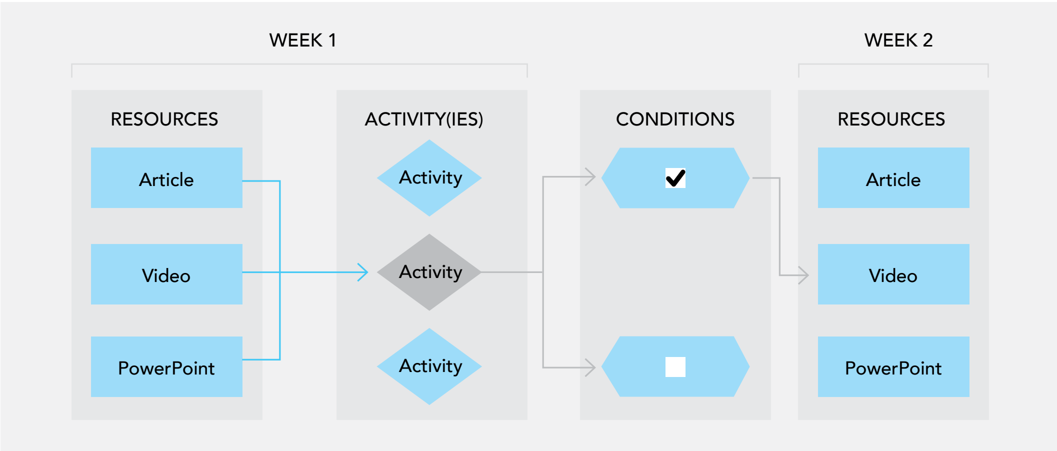
Student web-logs were extracted from the LMS statistics reports for two occurrences of the same course (term 4 before re-design and term 5 after re-design in 2020, which will be further identified as 20-AIC-04 and 20-AIC-05 respectively). Web-logs provided detailed records of student behaviour as they interacted with the online course content in the digital learning environment. The course was taught by different lecturers in the two study blocks, however, the course learning outcomes remained the same. Two assignments contributed towards the course final grade - 30% assignment one and 70% assignment two. However, assignment two had a group component in term 4 with each group member getting the same grade, whereas in term 5 the group project was assessed based on the individual contribution, i.e. all grades were individual (see Table 1).

Table 1. Assignment Structure and Weighting in 20-AIC-04 and 20-AIC-05

OCCURRENCE	ASSIGNMENT 1	ASSIGNMENT 2
20-AIC-04	30%	70% 30% Group 40% Individual
20-AIC-05	30%	70% Individual

The resources and materials were arranged into weekly blocks, developed, and uploaded by the lecturer as a paper expert. They served as sources of content and knowledge for active exercises which were set up by the LMS systems administrator in consultation with thelecturer. Some activities were compulsory and access to the next activity or weekly block had been set as conditional upon the activity completion (see Figure 1).

Figure 1. Conditional Learning Activities and Conditional Access



Throughout the eight-week course, different types of activities were set up. Some activities were designed for group collaboration (for example, Wiki), some were individual (Questionnaire, HTML5 package, summary, etc.), and some consisted of two parts, individual and group (two-part quiz). The number of compulsory activities depended on the amount of students' workload and assignment due dates. All the activities directly or indirectly contributed to completing assignments for the course.

DATA ANALYSIS AND DISCUSSION

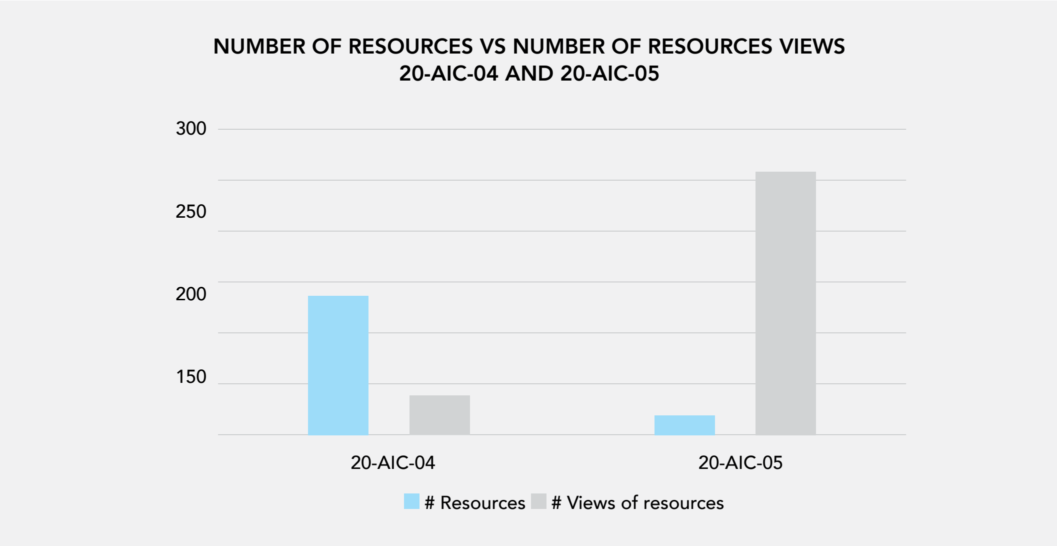
Students' online behaviour was tracked over the eight weeks that the course was running. Every interaction with the courses and activities was recorded in Moodle web-logs, which served as the primary source of data for the analysis. Table 2 demonstrates the comparative results of the web-log analysis for two consecutive iterations of the course.

Table 2. Comparative Analysis of Logs for 20-AIC-04 and 20-AIC-05

OCCURRENCES	# LEARN-ERS	# LOGS	# VIEWS	# RESOURCES	# VIEWS OF RESOURCES	# ACTIVITIES	#POSTS/ DISCUSSIONS
20-AIC-04	8	2358	1411	136	40	1	5
20-AIC-05	12	8477	7045	20	258	25	380

The number of interactions with the online course content more than doubled in 20-AIC-05. At the same time, the number of resources in 20-AIC-05 was almost seven times lower than the previous iteration. The resource types were quite similar in both iterations and included files, videos, articles, and PowerPoints. However, 20-AIC-04 had only one activity set in Moodle (a feedback tool – 5 students completed the activity), while there were twenty-five different activities in 20-AIC-05. Assignment submission links were excluded from the analysis as they were compulsory for the completion of the course. The increased number of resource views in 20-AIC-05 might signal that students may have been overwhelmed with the number of resources in term 4 and responded better to a smaller number of carefully selected and curated resources (Dabbagh & Fake, 2017). The more focused approach of the second iteration created the sense that each resource had a meaningful impact on the course and eliminated the need to sort through potentially unrelated content. Figure 2 provides a visual representation of the data on resource use.

Figure 2. Relationship Between the Number of Resources Available and Number of Resources Viewed by Students.



The content views were impacted by follow-up activities most of which were set up as compulsory. At the time of thepilot study, Moodle did not have the functionality to track the quality of students' interaction with a resource. The resource was marked "completed" if a student clicked on it, regardless of the time spent on the resource. The activities were a good way to check the understanding and engagement with the topic and created a bridge between the 'passive learning' and 'active learning practices. The activity completion rate also dramatically increased if taken in conjunction with resources.

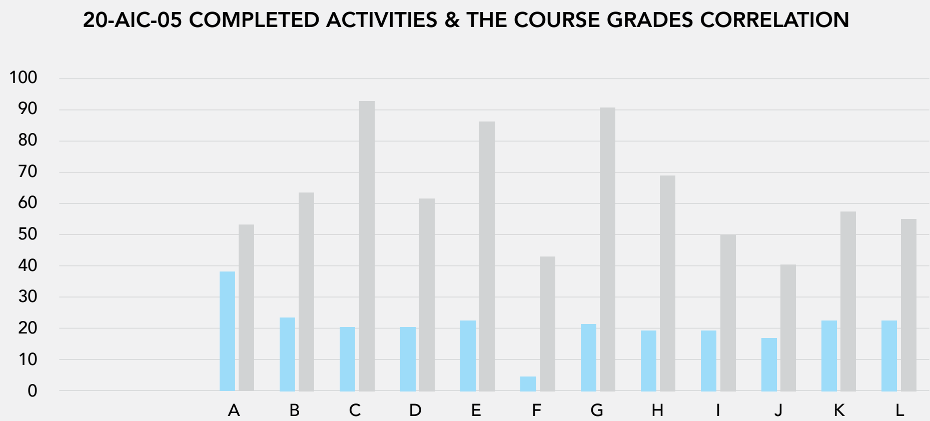
The activity completion rate in the Leadership in Action course for the second iteration was increased through a set of restrictions for the week's materials. Activities that were not set as compulsory and, therefore, did not have any materials/topics connected with their completion were ignored regardless of the content. For example, e-journal submission links for weeks 6, 7, and 8 were not compulsory. Only one student submitted the e-journal entry in week 6 and nobody submitted at all in weeks 7 and 8. Another example is the H5P activity. Despite the engaging and game-like nature of the activity (Lambda Solutions, 2020), only four out of twelve students completed it when it was not linked to conditional access to further materials.

Conditional access based on activity completion added some gamification principles to the Moodle course, which is in line with the modern educational trends for increasing student engagement (Hodge, 2019; Thurston, 2018). The sense of progression is like what games provide (van Roy & Zaman, 2018). The online course also had a set of rules and principles, guides and techniques to lead the students through a gamified learning journey (Geitz et al., 2019). This approach helped to improve the students' participation.

Course feedback collected at the end of week eight indicated that the students were generally supportive of the resource and activity design. But their interest waned over the course of their studies and, particularly, as they were approaching the due date for summative assignments. The design added to the students' anxiety as they felt that any task that they had not opened could have been critical for their summative assignment. Some students had only a few modules opened due to incomplete activities as "[there was] not enough time". Some students reported that "initially, the new methodology appeared to be exciting and there was a sense of motivation to complete the tasks before the deadline" but "towards the end, the pressure of the deadline of the weekly tasks sometimes rose the stress levels". Another student mentioned that "it was interesting and fun at first, however, piles of workload, stress, and pressure resulted in unfinished tasks and not being able to access the next week".

Making access conditional on activity completion proved to be a challenge for the lecturer of the course (Jaremka et al., 2020). The problem started appearing only when a handful of students were significantly ahead of the others. Students did not have access to certain parts of the course disrupted the lesson plans. Imagine a face- to-face class where only half the students can see the materials necessary to complete the tasks and having to constantly try and catch up. This put a significant strain on the planning of the class activities and ended up adding to the anxiety levels of both students and the lecturer.

Figure 3. Relationship Between Completed Activities and the Final Course Outcomes



	A	B	C	D	E	F	G	H	I	J	K	L
# Completed activities	21	23	20	20	22	4	21	19	19	16	22	22
Course grade	53	63	93	61	86	43	91	69	49	40	57	55

There were 25 different activities set during the pilot study to support weekly topics in the redesigned Moodle course. Not every activity was compulsory. One of the questions that the pilot study wanted to try and answer was whether there existed a correlation between the number of completed activities and the grades in 20-AIC-05. The activity completion rate fluctuated, a weak positive correlation could be seen between the number of completed activities and the course outcomes (see Figure 3). Students F and J, who failed the course, had the lowest number of completed activities. Student, I had the same number of completed activities as student H, who successfully passed the course. Students C and G with the highest grades have around 80% completed activities.

CONCLUSION

Student engagement increased after the LMS, Moodle course redesign. The data on engagement with online resources highlights the benefits of applying the principles of experiential learning to Moodle content. Higher engagement is likely the result of a combination of factors including the smaller number of resources and activities, conditional access to tasks, the structure of classes, and redesigned assignments that shifted the onus to individual contributions. The results also suggest that a balanced combination of activities and resources in the LMS is an effective practice to introduce different types of learning (Dabbagh & Fake, 2017; Reigeluth et al., 2015). There is no direct correlation between the type of Moodle activity and student engagement and even making activities compulsory does not guarantee their completion. Students could still ignore compulsory tasks even when it came at a detriment to their grade or increased their levels of anxiety, yet they were much more likely to eventually be completed if only to access the subsequent topics. The results show that introducing activities to complement LMS resources was a productive way to improve course efficiency in a blended learning environment. Analysis of the data obtained in this pilot study indicates that the activity completion feature combined with conditional access proved to be effective and engaging for the students as it helped to gamify the course. The number of completed activities combined with resource viewings was almost 70% after the course redesign compared with 3% in the previous study block for the Leadership in Action course. However, the proportion of compulsory activities should be balanced, and students' workload needs to be closely monitored to avoid raising anxiety levels because of hidden modules.

It was important to keep a few points in mind. First, it is recommended to incorporate activities in addition to resources into online course content as follow-up tasks. The pilot study proved that the activities supported knowledge assimilation via additional exposure to the topics discussed during face-to-face classes. The findings demonstrated a positive correlation between the number of completed activities in the online course and students' academic achievements. The second recommendation is to limit the number of resources in a Moodle course focusing on the quality of materials rather than quantity. The resources uploaded to Moodle courses should have definitive value for students as a source of information curated by the lecturer which will help them to complete their summative assignments and successfully finish the course. Finally, conditional access proved to be an effective and engaging strategy for the students at the start of the course. However, as the course progressed, the lecturer needed to consider additional strategies for retaining learner engagement as it is important to make sure that students understand the value of progressing through the materials. It is recommended to start the course using conditional access but carefully manage the learners' workload to make sure it is balanced.

The Leadership in Action Moodle course content redesign was an effective and accessible way to complement face-to-face classes in a blended learning environment. Evidence from the project could be used to facilitate students' engagement and learning in a digital space. Further research is recommended to determine the optimal balance between resources and activities in a Moodle course.

Olga Ustinova arrived in Aotearoa New Zealand as an international student in Otago Polytechnic Auckland International Campus pursuing her Postgraduate Diploma. Since graduating, she has been working for

over two years as a Systems Administrator with a strong focus on Moodle learning platform. Her previous experience as a student helps her to see Moodle from both sides and assist lecturers to use Moodle more effectively.

Email: Olga.Ustinova@op.ac.nz **Phone:** 021 051 5115

Barnaby Pace is a Principal Lecturer are Otago Polytechnic Auckland International Campus where he teaches Research Methodologies and Analytics courses for Applied Management students. He holds qualifications in Psychology, Cognitive Science, Education and Quality Systems.

Yury Zhrkov 's journey in Aotearoa New Zealand started when he decided to pursue his research interests in deliberative democracy and e-government at the University of Auckland. He has been working in tertiary education alongside other jobs for over fifteen years. Yury has a research Master's degree and is working on his Ph.D. at the moment.

Email: yuryz@op.ac.nz **Phone:** 021 849184

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https://doi.org/10.34074/rere.00105

Article

WHAT DIGITAL MARKETING STRATEGIES: PROMOTING INTERNATIONAL HIGHER EDUCATION?

Victora Mishina and Barnaby Pace

INTRODUCTION

In recent years the competition between higher educational institutions in recruiting international students has significantly increased. The universities and polytechnics are working on establishing their reputation, increasing trust and attracting more prospective students. Due to this reason, higher educational institutions have to improve and develop their marketing strategies. Digital marketing is identified as one of the most powerful tools in promoting educational services (Camilleri, 2020; Dhote, et al., 2015; Fierro, et al., 2017; Kusumawati, 2019; Sawlani & Susilo, 2020; Shields & Peruta, 2018; Zhu, 2019). Considering the global educational marketing situation and the increased demand for international education, this research will address the following question: What digital marketing strategies can be used for promoting international higher education?

The following definition digital marketing is understood as an interactive tool used on media platforms to reach potential customers is used in this research (Kannan, 2017; Stephen & Lamberton, 2016). The proposed question covers the subject of digital marketing in the context of higher education with a focus on international students. In the context of this research, the definition of higher education by Cambridge Dictionary (2021) is used. It is defined as education provided by a college or a university where subjects are studied at an advanced level. The objectives of this research were: to firstly, determine the role of digital marketing in higher education, and secondly, to identify digital marketing tools used for promoting international higher education.

The research conducted by Mishina (2021) identified that promoting online language education via social media platforms to be an effective digital marketing tool in higher education. A more detailed analysis of several social networks which could be used as a marketing tool will be presented.

The reviewed literature focuses on digital marketing frameworks, specific social media platforms, and how they can be most effectively used. Most of the chosen articles describe digital marketing tools which are used by universities and polytechnics in the European and English-speaking countries, which host most international universities (Times Higher Education, 2021).

A literature review process was used to firstly, identify and analyse the role of digital marketing in higher education, and secondly, review platform-based marketing strategies in higher education with a detailed analysis of social networks.

Keywords: digital marketing, social media, higher education, international students, international education.

ANALYSIS OF LITERATURE

Literature Review Process

To address the question posed, journal articles were selected for analysis by using keywords including "digital marketing", "social media", "higher education", "international students", and "international education". Search engine "Google Scholar" and academic databases "Taylor & Francis Online", "ProQuest", "Scholarly Needs", "Emerald Insight" were used to search for relevant literature. The articles were chosen by applying the search criteria - the year of publication "starting from 2010 to 2021 (Current)". Twenty-five articles were selected based on their potential relationship to address the three predetermined sub-questions as provided below.

The selected literature was analysed based on the following questions: What is the role of digital marketing in education? How can social networks be used as a marketing tool in higher education? and What are the best social media platforms for developing a marketing strategy for higher education?

EVALUATION OF THE LITERATURE

Digital Marketing in Higher Education

Contemporary research indicates that students' choice for higher educational institutions is influenced by digital media (Camilleri, 2020; Kumar, et al., 2017; Kusumawati, 2019; Sawlani & Susilo, 2020). This is because it allows for evaluation and comparison of the necessary information about the educational institutions, the programs of study, and student life, in a particular educational organisation (Dhote, et al., 2015). Most higher education institutions find it essential to apply digital marketing strategies to reach potential students (Kannan, 2017). Higher educational institutions around the world can establish brand awareness and market their educational services on a local and international level using digital marketing (Sawlani & Susilo, 2020). There is a wide variety of digital marketing tactics which can be used for increasing loyalty, sales, engagement, and trust of current and potential students, for example, website design, search engine optimization, and mobile connected Apps (Kannan, 2017).

There were different approaches observed in the literature to develop a marketing strategy. For example, the 4S model by Tucker & Au (2019) is focused on "solution, sacrifice, situation, and social media" (p. 176). Tabrissova (2018) introduced the situation, objectives, strategy, tactics, action and control (SOSTAC) planning model for developing a digital marketing strategy pointing to a deeper understanding of social media, influencing, and search engine marketing concepts.

For the research design, the platform-based framework by Fierro et al. (2017) was used. According to this framework, digital marketing strategies should be based on three elements: Social Networks, Mobile Marketing, Customer Relationship Management (CRM). Based on this framework, a more detailed analysis of the use of social networks, the adoption of Mobile Marketing, and CRM will be introduced in the following section.

Social Networks in Higher Education

Islam et al. (2018) point at brand awareness as an element fostering brand loyalty. Social networks are found to be the most essential tool in establishing brands for educational institutions (Ram et al., 2017). Sjögren & Trautmann (2019) indicate social media, specifically Facebook, as the main resource used by a significant number of students when deciding on which educational institution to attend. Besides the typical information about subjects, potential students often search for information about university social life, the sense of activities, and the sense of community they might experience (Sjögren & Trautmann, 2019). Considering this fact, universities and polytechnics must include such information into their social media strategies. Shields & Peruta (2018) highlight the advantages of using social media in marketing higher education and describe the challenges and problems; costless posting of communications compared to printed brochures, high level of accessibility by social network users, the ability of tracking and measurement of how effective the posts and campaigns are, and offering analytic tools. Time-consuming content creation, constant management of social networks pages, finding the most suitable context for each platform, constantly changing algorithms in reaching the posts were identified as the challenges (Shields & Peruta, 2018).

Facebook, YouTube, Instagram, and TikTok were found to be the world's largest social networks (Datareportal, 2021). Several studies were dedicated to examining how Facebook can be used as a marketing tool for interacting with prospective students (Peruta & Shields, 2018; Rekhter & Hossler, 2020). The research by Assimakopoulos et al. (2017) identifies patterns of how undergraduate students interact with the Facebook groups of the University of Novi Sad of the Republic of Serbia and the Technological Educational Institute of Western Macedonia, Greece. Based on the research the following five factors were determined: 1. the group administrators being more active (posing, sharing), 2. group members' activities, 3. interaction with the content shared by administrators, 4. more frequent visits for searching for the new information, and 5. adopting Facebook groups to the individual needs of students (Assimakopoulos et al., 2017). University and polytechnic marketers could consider these factors when planning to recruit strategies to increase the interaction of the potential students with their Facebook groups.

A different approach is used by Peruta & Shields (2017), which was focused on the type and frequency of content that educational institutions post on their Facebook pages. The findings of Peruta & Shields's (2017) research demonstrate the difference between engagement on posts depending on the type of the educational institution, media type, and posting frequency. For example,

"Liberal arts colleges [Polytechnic] receive more proportional engagement than public and private universities, despite posting less frequently" (Peruta & Shields, 2017, p. 140). With regards to media types, private universities post photographs more regularly, whereas liberal arts colleges [Polytechnic] mostly rely on links to external sites (Peruta & Shields, 2017). Thus, universities that post less frequently and include photographs, receive higher overall engagement.

The findings by Bonilla Quijada et al. (2021) who examined Instagram pages of the five highest-rated universities according to Academic Ranking of World Universities (ShanghaiRanking Consultancy, 2019), suggest posting engaging content which appeals to emotions as it has a greater impact on engagement and reduces posts containing advertisements that generate less engagement.

According to Shields & Peruta (2018) prospective students tend to use more image-driven social media, for example, Instagram and Snapchat, compared to Facebook, "which is seen as passé by traditionally aged college students" (p. 71). However, both Facebook and Instagram help determine the atmosphere on campuses and activities that students engage in. It was found that being non-active on social media for a year the educational institution might be considered irrelevant and not unique, resulting in a negative impact on the number of recruited students (Shields & Peruta, 2019).

Most of the reviewed studies identify the right quality and frequency of content posting as the best strategies for increasing engagement. However, the importance of considering the geo-location of the prospective students when planning a social media marketing strategy is not frequently mentioned (Assimakopoulos et al., 2017; Bonilla Quijada et al., 2021). Zhu (2019, p. 174) stated that "China is now the world's biggest source of foreign students" in the market of higher education. For example, in 2018 China contributed to one-third of the international students in the United Kingdom (Zhu, 2019). Although, such popular social media platforms like YouTube, Twitter, Facebook, and Instagram are not accessible in China due to the censorship policy (Zhu, 2019). For this reason, it is recommended using social networking platforms like Sina Weibo and WeChat, which are popular with Chinese prospective students living both in mainland China and other countries to establish a brand and increase trust (Adi & Hobby, n.d.; Teng, et al., 2015). Zhu (2019) investigated how Sina Weibo and WeChat could be adopted by the western universities in their social media strategies for recruiting Chinese students. According to Zhu's (2019) findings, WeChat is three times more popular than Sina Weibo and might reach more potential students, although Sina Weibo is easier in posting photographic content and exchanging messages and less complicated in editing articles than WeChat.

Camillery (2020) recommends using the local language of the prospective students and considering their socio-cultural norms, beliefs, and expectations when marketing educational services.

Thus, the use of social networks increases brand awareness of educational institutions among potential students. Social media like Facebook and Instagram are found to be the most popular among students and can be used as marketing tools to interact with prospective students and demonstrate university and polytechnic students' social life, for example, by intensifying the activities on the social networks profiles. The type and frequency of content posting should be planned depending on the type of the educational institution. The image-based platform Instagram is more frequently used by current prospective students, according to the latest research, compared to Facebook, which is more preferred by older students. Geo-location of potential students, accessibility of Instagram and Facebook in targeted regions, and the use of local social networks are important factors to be considered when marketing international education. By creating and managing profiles on Sina Weibo and WeChat (Chinese social networks) universities and polytechnics can increase their chances of reaching more prospective students, as China has become the largest source of international students.

Mobile Marketing and Customer Relationship Management

Mobile devices play a significant role when students search for the information and make decisions on a study choice (Zinn & Johansson, 2015). For this reason, the need for the adoption of new mobile marketing strategies has increased among higher educational institutions (Wong et al. 2020). This means that higher education providers can reach more potential students by being more relevant to a mobile generation (McCabe & Weaver, 2019). Zinn & Johansson (2015) presented the refined conceptual model with a framework for developing a coherent and integrated mobile recruitment strategy. The model includes five categories of students (prospects, inquirers, applicants, admits, enrolled), and provides a detailed description of ten mobile marketing tools which can be used based on the category of students (Zinn & Johansson, 2015) and includes the following tools; Mobile-optimized Website, Mobile Search Marketing, Mobile Advertising, Mobile Social Media Marketing, SMS & Mobile Instant Messaging, Mobile Email Marketing, Quick Response (QR) Codes, Near-field Communication (NFC), Location-based Marketing, and Mobile Analytics. This research (Zinn & Johansson, 2015) does not differentiate between domestic and international students, however, it is believed that all mentioned mobile marketing tools can potentially be used when planning international marketing strategies.

Some practical suggestions are offered by Wong et al. (2020) to consider when designing a mobile marketing strategy; creating content for social media by current students, involving student ambassadors, using mobile applications contribute to engagement level as well as help in establishing a stronger brand.

Another additional tool that can be used for promoting higher education is CRM (Hrnjic, 2016). Hrnjic (2016) states that higher education institutions have been facing economic pressures and shortages of capital. Having transformed from teacher-oriented to student-oriented approaches, higher education institutions are required to increase the level of customer satisfaction to attract and retain students (Hrnjic, 2016). Hrnjic (2016) addressed the question of whether the implementation of CRM helps higher education institutions to achieve economic objectives and increase the customer satisfaction level. In the educational sector CRM is focused on the automation and improvement of the institutional processes associated with the students' support and service, marketing, recruitment, and management, and is viewed as a combination of business strategies and technologies, implementation of which helps to reduce costs, and increase revenue (Khanna, 2019). Beheshti & Bagheri (2010) presented a CRM framework that can be applied for designing and supporting marketing strategies to manage relationships with international students. The research (Beheshti & Bagheri, 2010) is based on the data from Swedish universities, however, it can be applied to any university which targets international students in its marketing campaigns. The CRM framework by Beheshti & Bagheri (2010) consists of such elements as people, channels, Information Communication and Technology (ICT)-based tools, required processes, and technologies. According to the findings (Beheshti & Bagheri, 2010) it is recommended to establish market segmentation for successful implementation of the framework. Three criteria to consider in marketing to international students were identified: 1. nationality (targeting Chinese and Indian students); 2. qualification of students (attracting the most qualified and talented students); 3. partner universities (collaboration and improvement of partnership with specific universities around the globe).

To conclude, the integration of Mobile Marketing and CRM into marketing strategies by an educational institution allows it to be more relevant to the prospective students and complements existing marketing strategies with the tools able to target more specific audiences. The refined model (Zinn & Johansson, 2015) for mobile marketing includes five categories of students and ten mobile marketing tools and the CRM framework consists of five elements.

LIMITATIONS AND GAPS

In describing the use of social media in recruiting international students, this research does not completely explain how the same social media platforms should be considered depending on different geographical locations, and the cultural background of students (Kusumawati, 2019; Zhu, 2019). Also, the reviewed research papers mostly specify how beneficial the use of social media is in planning marketing strategies is (Dhote et al., 2015; Fierro et al., 2017; Kumar et al., 2017). However, any concerns or mistakes in using social media are not mentioned.

There was no study identified within the literature reviewed on the differentiation of digital marketing tools that require a financial contribution and can be used for free, and on the budget planning of digital marketing campaigns in higher education. Also, the findings within this research do not show how effective paid digital marketing tools are in recruiting international students.

CONCLUSION

Recruiting international students has become one of the main marketing purposes for higher education institutions around the globe due to high competition between them and a growing demand for international education. Digital marketing is considered to be the most effective way to target prospective international students. Such digital marketing tools as Social Networks, Mobile Marketing, CRM can be used for this purpose. Having profiles on social networks, such as Facebook and Instagram, more careful management of their accounts, considering posting frequency according to the institution type, engaging picture-based media, reducing the number of posts containing advertisements altogether help to increase the engagement, school brand awareness, and reputation, and assist in reaching a greater number of potential students. Considering the geo-location of the prospective students is also significant. Chinese students have become the most frequent customers of international higher education. It is suggested universities and polytechnics adopt Sina Weibo and WeChat (Chinese social media platforms) when developing marketing strategies that target international students.

Adoption of mobile marketing strategies is essential in recruiting domestic and international students as mobile devices are widely used in searching the information about universities and polytechnics and educational programs. Depending on the recruitment stage different mobile marketing tools can be used, for example, Mobile-optimized Website, Mobile Search Marketing, Mobile Advertising. Higher educational institutions have implemented CRM, which helps plan marketing strategies and manage relationships with prospective international students. A specific framework for using CRM was suggested based on five elements, such as people, channels, ICT-based tools, required processes, and technologies.

The analysed literature partially answers the research question of what digital marketing strategies can be used for promoting international higher education. It covers various tools and frameworks of digital marketing which can be applied in international higher education. Hypothetically different combinations of described tools or specific tools could be used by higher education institutions, however, they should be tested.

Further recommendations for research could be to conduct a broader investigation into the Chinese social media platforms and cultural specifics of marketing higher education programmes to prospective Chinese students, and the development of a more detailed digital marketing strategy or a framework for universities and polytechnics based on the findings.

In the course of Covid-19 pandemic the demand for online higher education has increased. Due to this reason higher education institutions can consider offering free online courses as a marketing tool to encourage new potential students to enrol. Also, developing a CRM system for a specific market could be considered to contribute to further research into digital marketing strategies for promoting international higher education.

Victora Mishina is a postgraduate student undertaking the Applied Management Program in Otago Polytechnic Auckland International Campus with the background in Linguistics and Education.

Barnaby Pace is a Principal Lecturer are Otago Polytechnic Auckland International Campus where he teaches Research Methodologies and Analytics courses for Applied Management students. He holds qualifications in Psychology, Cognitive Science, Education and Quality Systems.

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https://doi.org/10.34074/rere.00106

Article

THE IMPACT OF EXTRACURRICULAR ACTIVITIES AND ENGAGEMENT ON INTERNATIONAL GRADUATES' EMPLOYABILITY: OPAIC ALUMNI 2019

Anastasia Timoshkina, Barnaby Pace, Lorraine Skelton

ABSTRACT

The high level of dissatisfaction from an employability perspective and decreasing employment rate of international students in New Zealand is an increasing concern for higher education providers and their students. Education New Zealand research in 2019 and Otago Polytechnic Auckland International Campus Graduate Outcome report 2019 support these findings. It highlights a need for a strategy to develop and enhance international student employability skills.

The purpose of this study was to investigate the connection between the graduates' employability and their participation in extracurricular activities (ECAs) and the outcomes from their involvement. This study explored the views of Otago Polytechnic Auckland International Campus alumni who graduated in 2019 from various undergraduate and postgraduate programmes. Using descriptive and thematic analysis, this study analysed the impact of extracurricular activities on Otago Polytechnic Auckland International Campus graduates' employability. Convenience sampling was used for data collection. A total of 112 participants completed an online survey, and 7 participants undertook semi-structured interviews. The data collected from the survey identified the level of engagement in different extracurricular activities, the motivations to participate, the barriers to participation, the development of soft skills from graduates' perspective, and employment rates. Using the descriptive analysis, data was compared and correlated. The data collected from interviews provided an in-depth understanding of how international students perceive the benefits of engagement in extracurricular activities and shared their outcomes. Recommendations were provided for future and current international students and to Otago Polytechnic Auckland International Campus as a facilitator of employability skills development based on the findings.

Keywords: employability; international students employability; extracurricular activities participation; transferable skills; engagement in extracurricular activities; soft skills development;

INTRODUCTION

Understanding that return on investment (ROI) is an essential part of the decision-making process of international students, institutions worldwide make employability a part of their brand, according to Berquist et al. (2019). Hence the international education market has to change its policy to let students work during studies and after graduation (Berquist et al., 2019). New Zealand (NZ) is not an exception. New changes in work rights for international students make NZ a very attractive place to study amongst English-speaking countries like Australia, Canada, the United States of America (USA), the United Kingdom etc. (Berquist et al., 2019).

However, it creates pressure for higher education (HE) providers in NZ to supply employable graduates to contribute to national and global economic growth (Small, Shacklock, & Marchant, 2018).

As part of the International Education Strategy 2013-2030 (Education New Zealand, 2019), the Education New Zealand agency runs an international student experience survey to understand the whole journey of the international student in NZ. Notably, the results showed overall satisfaction apart from the employment experience (Nielsen Company, 2020). It was discouraging to discover from the survey results that the challenge was finding a job related to an academic degree and finding part-time options while studying (Nielsen Company, 2020). Therefore, there is a need to understand employability to a greater extent.

Otago Polytechnic Auckland International Campus (OPAIC), as one of the leading tertiary providers of international education in NZ, focuses on student employability, and its vision "NZ's most employable graduates" gives hope to students (Otago Polytechnic Auckland International Campus, 2020-a). However, one of the recent OPAIC, "Graduate Outcome Reports" showed a 13% drop in employment rates of alumni 2019 in comparison with alumni 2018 (Otago Polytechnic Auckland International Campus, 2020-a). Therefore, this increases the concern about employability and obligates OPAIC to look at this issue from different perspectives.

In 2020 the situation had dramatically changed all over the world due to Corona Virus Disease- 19 (COVID-19) and created ambiguity in the labour market, particularly for international students (New Zealand Government, 2020). Many industries in NZ have gone through restructure, redundancies, or, even worse, bankruptcy, and hence this created a lot of competition in the job market for international students and required them to stand out from an employability point of view New Zealand Government (2020). Thus, it is a signal for all stakeholders (NZ Government, employers, international students, tertiary education providers) to focus on employability strategy development.

This study will focus on understanding the extracurricular activities (ECA) phenomenon, its benefits, and the enhancement of OPAIC international students' employability.

STUDY AIM AND QUESTIONS

The employability of the graduates is the biggest concern of many tertiary education providers around the world (Berquist et al., 2019; Pais, 2012; Small, Shacklock, Marchant, et al., 2018). Hence, OPAIC needs to improve employability skills and make the transition of graduates into the labour market smoother.

Focusing on OPAIC alumni who graduated in 2019 this study intends to determine if there is a connection between participation in ECAs and employability skills development from the graduates' point of view.

The study aims to review current literature to identify potential benefits from engagement in ECAs. Secondly, the analysis of 2019 alumni responses to a quantitative survey was conducted to determine if there was a correlation between the ability to get a full-time job related to an OPAIC degree and the proactive participation in extracurricular activities of graduates. Moreover, the researchers wanted to find out if graduates were aware of the benefits from engagement in ECAs during their studies, if they participated in ECAs, how often, and the reasons for not engaging.

Finally, it aimed to analyse the data collected during interviews with graduates who shared their perspectives on the effectiveness of being proactive and engaged in ECAs.

Study question:

How does participation in extracurricular activities impact OPAIC graduates' employability?

"Employable graduates" are in the interest of all OPAIC stakeholders: NZ Government, employers, international students and their families, tertiary education providers (Berquist et al., 2019). Hence, this study provides insights on employability in general and OPAIC 2019 graduates' employability in particular;

discuss the opportunities for international students to be proactive and engage in ECAs. The research will be helpful for the OPAIC Employability Team and other policymakers.

LITERATURE REVIEW

International Students Employability

What is employability?

One of the most popular definitions of employability is "a set of achievements – skills, understandings, and personal attributes – that makes graduates more likely to gain employment and succeed in their chosen occupations, and which thus benefits themselves, the workforce, community, and economy" (Yorke, 2006, p. 8). Later in the literature, this definition is reiterated with some minor additions. However, even though definitions by researchers are similar, misunderstanding still exists in the labour market around the world regarding employability. Tymon (2013) assumes that any misunderstanding about employability is caused by different perspectives, for instance, student, HE provider and employer.

Employers

Several studies that carried out in the last decade to understand employer's expectations from graduates showed that the academic degree is not the number one but an additional requirement to what employers want to see when hiring graduates (Lau et al., 2014; Stevenson & Clegg, 2011; Støren & Aamodt, 2010).

Previous research suggests interviews with employers demonstrate consistency and similarity in the expectations from graduates (see Table 1). However, Tymon (2013) stated an obvious gap between employers' expectations and satisfaction levels. For example, communication capability was ranked as the main skill in demand, taking first place in the list, but rated as 16th when it comes to employers' satisfaction (Tymon, 2013). Therefore, this gap is a concern for the work-readiness of graduates.

Table 1. Employers' Preferences of Graduates' Employability Skills

GRADUATES SKILLS AND CAPABILITIES	RESEARCH
Effective communication (verbally and in writing). Work in teams. Cultural competence. Effective interpersonal behaviour. Solving problems	Learner Capability Framework (Otago Polytechnic, 2019)
Self-confidence; Awareness about personality. Effective communication;	(Thompson et al., 2013)
Communication skills. Willingness to learn. Team-working. Interpersonal skills. Self-awareness. Networking skills	(Jones, 2013; Yorke, 2006)
Communication. Teamwork. Integrity. Flexibility. Commitment.	(Tymon, 2013)

GRADUATES SKILLS AND CAPABILITIES	RESEARCH
Soft skills. Problem-solving skills. Functional skills. Pre-graduate experience. Academic reputation.	(Chhinzer & Russo, 2018)

International Students and Graduates

Many studies about international students' employability show that an academic degree itself is not a guarantee to obtaining a job for graduates (Yorke, 2006), curricula do not include the proper employability skills development (Thompson et al., 2013), and international students try to focus only on course completion, in some cases with high grades, to get the technical skills (Gribble, 2015). Jones (2013) stated that the Ministry of Education in Australia conducted a survey and found that international students underrate employability skills, leading to conflict in understanding who the employable graduate is between international graduates and employers.

The literature analysis identified the possible barriers for international graduates to enter the job market, and the results are presented below (see Table 2).

Table 2. Barriers to Transition into the Job Market for International Graduates

BARRIERS	RESEARCH
Being new in the country, the international student does not know the industry insights to navigate the market and stand out in competition with local graduates.	(Clark et al., 2015)
NZ is a popular study destination. Hence, the competition is very high because there are a lot of international students.	(Matlay & Rae, 2007)
Local employers are prejudiced about international students' knowledge of workplace culture and cross-cultural communications.	(Jackson, 2017)
The process of gaining soft skills during studies is not valued by international students.	(Gribble, 2015)
International students do not focus on understanding the local workplace culture and the approach to job search.	(Nguyen & Hartz, 2020)
Employers have many negative perceptions, including weak language skills, absence of local work experience, poor professional networks.	(Berquist et al., 2019)

Despite all the barriers to transition mentioned in Table 2, there is also a positive trend in international graduates' experience. The literature investigation revealed that the employers appreciate the resilience, the ability to speak more than one language, the skill to build networks from scratch, open-minded way of thinking, soft skills that lead to intercultural awareness, and the capability of self-development (Crossman & Clarke, 2010; Huang & Turner, 2018; Jones, 2013; Nilsson, 2019).

Higher Education Providers

There is a popular view that HE providers must develop students' employability and better prepare them to enter the labour force with upgraded soft skills (Olivares et al., 2019; Yorke, 2006). Tymon (2013) found that HE providers are already under pressure marketing-wise to stay profitable. This and other challenges make it difficult to stay focused on the employability of the graduates.

There is the view that international students should be curious and proactive, take steps forward and stand out (Huang & Turner, 2018; Pinto & Ramalheira, 2017). Consequently, it leads to the question of what can international students do to stand out and develop soft skills?

Many studies found that participation in ECAs is connected to graduates employability and is an essential part of the "stand out" strategy (Pinto & Ramalheira, 2017). Akinrinmade and Ayeni (2017) also found that employers see the positive outcomes for international graduate's employability from the engagement in ECAs.

Therefore, this study explores how ECAs can benefit international graduates and enhance their employability.

EXTRACURRICULAR ACTIVITIES

ECAs are activities outside the classroom that are not compulsory, and students do not get grades for them (Tran, 2017).

Although there is minimal research on the impact of ECAs on students, with less information on international students, compared to the academic degree effectiveness, we found that there is a positive outcome from ECAs engagement for students (Clark et al., 2015; Lau et al., 2014; Thompson et al., 2013). For example, the research by Tran (2017) about international Asian students studying overseas reports that participation in ECAs helped them to adapt in a new country, improve language and communication skills. Nilsson (2019) also stated that in order to overcome homesickness and improve well-being, it is essential for international students to be connected to local groups, clubs, or communities. Table 3 below lists ECAs and reported benefits in different literature.

Table 3. Benefits from Engaging in Different Extracurricular Activities

ECA TYPE	BENEFITS	SOURCE
Networking and Industry events	– An understanding of the new environment and better adaptation. – Depending on the level and quality of engagement with networks, showed higher rates of job offers and smooth transition to employment. – Getting knowledge, establish collaborations. – Raise awareness about personal branding and creating a reputation. – Enlarging professional networks. – Learning industry insights and trends.	(Fu, 2021) (Van Hoye et al., 2013) (Mitchell et al., 2016) (Stam, 2010)

ECA TYPE	BENEFITS	SOURCE
Volunteering	– Meet new like-minded people and possibly make friends. – Receive a recommendation letter or a certificate to add to your Curriculum Vitae (CV). – Improving personal confidence and well-being by helping or leading others. – Enhancing employability by learning how to work in teams, how to create networks. Practice the English language. – Escape loneliness.	(Fu, 2021) (Lau et al., 2014) (Kamerade & Paine, 2014)
Internship	– Improving time management, the ability to express yourself better, leadership skills, teamwork skills, communication in English, tolerance to the diverse environment, positive attitude to future work, willingness to learn, resilience, the understanding of what a future step in career can be. – Getting local work experience, chance to apply academic knowledge and technical skills. – Understanding the field of interest and future career planning. – Making international students stand out and more marketable. – Enlarge professional network and receive valuable recommendations. – Possible transition to a job. – Gain confidence.	(Chen et al., 2018) (O'Connor & Bodicoat, 2017)
Part-time job	– Acquisition of local work experience. – Getting knowledge of the job market. – Development of teamwork, communication, English language, time management, and interpersonal skills.	(Ylonen, 2012) (Education New Zealand, 2021)
Employability workshops and career guidance services	– Empowerment and encouragement of being proactive and believe in themselves. – Learn how to set career goals. – Getting work-ready by learning how to job search, how to prepare a CV and cover letters, how to prepare for an interview etc. – Understand the local market and identify tools to become more employable.	(Robertson, 2013)
Student communities (Buddy or Student Ambassador Program)	– Understanding how the local organisation works. – Improvement of teamwork skills. – Intercultural communication skills and awareness. – Leadership skills improvement as well as problem-solving. – Gaining confidence from coaching newcomers. – Connecting with international students from other countries to learning about the new culture. – Improvement of communication, coaching, flexibility, teamwork skills.	(Lundberg et al., 2018) (Akinrinmade & Ayeni, 2017) (Nilsson, 2019) (Ylonen, 2012)

Although the research mentioned above found the benefits of participation in different ECAs that can enhance the employability of international students, there is another study that shows the opposite results. It was found that there is no considerable enhancement of students' employability after participation in ECAs (Lau et al., 2014).

Reasons for Low Engagement

It was observed that low engagement in ECAs might be caused by reasons such as:

Current students do not value participation because they consider it a waste of time and do not believe that it can improve employability (Akinrinmade & Ayeni, 2017).

Students struggle to relate ECAs to gaining employability skills; Due to full-time studies and part-time jobs, they do not have time to participate. In cases where activities do not include active participation for students, they do not seem interested (Tran, 2017).

Therefore, there is a need to start promoting proactiveness and raise awareness of ECAs benefits as soon as students begin their studies to help develop career planning strategies and see the bigger picture (Clark et al., 2015; Thompson et al., 2013).

METHODOLOGY

Study Design

To investigate how ECAs enhance graduates employability, this exploratory study was conducted to perform descriptive analysis with a focus on OPAIC alumni 2019. Firstly, to measure the employability of alumni, this study was based on the magic bullet model suggested by Harvey (2001) where the graduates were called employable when they obtained full-time employment within the specified period of time (six months) after graduation, and this employment was connected to their academic degree. Moreover, this model implies that there is an impact of HE on employability skills development. In this study, the job relevance to the academic degree is based on the graduates' perception.

Secondly, to understand if employability was enhanced by participation in ECAs or not, it is necessary to investigate the factors responsible for the enhancement. For example, the researchers focused on how proactive OPAIC international students were during their studies in 2019 in terms of ECAs participation and correlates it to the length of the job search period until getting employed.

The study used a mixed-method approach that was conducted to collect primary qualitative and quantitative data (Rudestam & Newton, 2014). To minimise bias, the researchers used methodological triangulations to enrich the data by including several options for collecting it, such as online surveys and semi-structured interviews (Shareia, 2016).

The researchers chose the year 2019 for the study on purpose to provide enough time for graduates to find employment, get as much reliable information based on recollection of the events, and exclude COVID-19 conditions that occurred in 2020 around the world.

Sample of Participants

For this study, the researchers targeted any international student of any age, gender, nationality, and programme completion who finished studies at OPAIC in 2019 to collect data quickly, which is considered convenience sampling (Etikan et al., 2016).

The researchers contacted the OPAIC Registry and collected information indicating 651 international students graduated from OPAIC with various undergraduate and postgraduate programmes in 2019. Table 4 below represents the response rate for different programmes.

Table 4. International Student 2019 Population and Sample By Programme

OPAIC PROGRAMME	2019 INTERNATIONAL STUDENTS TOTAL	PARTICIPANTS (FINISHED)	% RESPONSE RATE
Graduate Diploma in Applied Management	252	44	17%
Graduate Diploma in Sales and Marketing	27	7	26%
Graduate Diploma in Hotel Management	48	10	21%
Bachelor of Applied Management	27	2	7%
Postgraduate Diploma in Applied Management	137	24	18%
Master in Applied Management	54	13	24%
Master of Professional Practice	8	1	13%
Graduate Diploma in Information Technology	53	5	9%
Bachelor of Construction (Quantity Surveying)	6	1	17%
Diploma in Construction	36	4	11%
Postgraduate Certificate in Applied Management	3	1	33%
TOTAL	**651**	**112**	**17%**

Initially, this study followed the inclusion and exclusion criteria. For example, data must include only OPAIC international students; who graduated in 2019; who studied undergraduate and postgraduate programmes; stayed in NZ after graduation intending to find employment as soon as possible. The data excluded any students who did not give consent; took a break after studies, and went for holidays (back to their home country), or who pursued further study. This exclusion criterion was based on the magic bullet model, focusing on graduates searching for a job immediately after graduation and were employed within six months.

DATA COLLECTION

The link to the anonymous online survey was sent through Qualtrics to 651 graduates on December 15, 2020.

The online survey was planned to be active for two weeks. However, due to the timing at the end of the year, Christmas and New Year holidays, and not very high response rate, the survey remained active till January 31, 2021. During this time, three reminders were sent only to those who had not completed the survey. One-hundred and eighty surveys were started, 144 surveys were recorded (31 uncompleted responses were excluded), 113 surveys were finished (completion rate 63%, response rate 17%), and nine emails bounced back.

The survey was finished by 113 graduates, while one of them did not consent. Hence, 112 participants completed the online survey and were offered to participate in semi-structured interviews over the phone, Microsoft Teams, or face-to-face. Twenty-six participants agreed to participate in the interview and sent their contact details for future communications.

ETHICS

This study was performed in accordance with the Otago Polytechnic Research Ethics Committee (OPREC) guidance. It was review and approved by OPREC on October 6, 2020 (AIC67).

DATA ANALYSIS

Questionnaire

The raw data was sorted in Qualtrics. With the help of the metadata function, the researchers included only those participants who completed the survey (n=112). The researchers downloaded the original data from Qualtrics in two formats for use in the Statistical Package for the Social Sciences (SPSS) and Microsoft Excel. The data were analysed using descriptive, correlation, and regression analysis in Excel. Moreover, data were compared in SPSS through the cross-tabulation function.

Semi-structured Interviews

Interviews were automatically transcribed through the Microsoft Stream. The researchers reviewed and listened to the voice recorders and made edits manually in each transcription.

For qualitative data analysis collected from semi-structured interviews (n=7) , the researchers used the six-step thematic analysis (Braun & Clarke, 2006).

LIMITATIONS

Firstly, the collection of data during the Christmas and New Year holidays was considered a limitation as it could be the reason for the lower response rate. Secondly, the recollection of some events was challenging for some. As a result, some participants did not provide the full picture of ECAs participation in the survey and remembered some of those during the interview. Hence the suggestion for future research is to target participants who completed their studies no later than six months before data collection.

Thirdly, due to time limitations, the researchers interviewed only seven out of 26 graduates who expressed interest.

FINDINGS

This section will split findings into two parts:

1. descriptive analysis of quantitative data collected through an online questionnaire.
2. thematic analysis of qualitative data collected through semi-structured interviews.

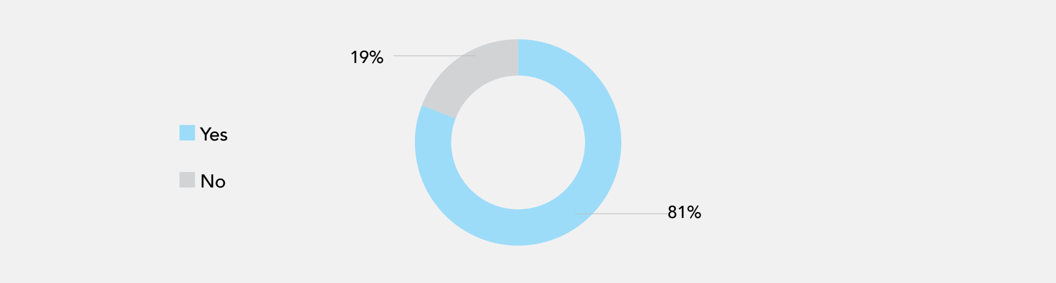
Questionnaire

The survey was completed by 112 participants. The analysis was limited to alumni 2019 who had an intention to seek employment in NZ immediately after graduation. Therefore, two questions in the survey excluded two categories of participants:

1. Participants who returned home after graduation – 20% (22 graduates).
2. Participants who pursued further education – 10% (nine graduates).

Initially, the survey was designed to exclude those who did not find a full-time job after graduation. For those participants who answered No it was the end of the survey. There were four participants under this condition excluded. However, it was not possible to see their participation level in ECAs. Hence, display logic was replaced by skip logic for the rest of the participants. Therefore, Figure 1 represents the participants who answered the question, “Have you found at least 1 full-time job since you graduated?”. In response, 66 participants found a full-time job, and 15 participants did not find a full-time job (Mean (M) =1.19; Standard Deviation (SD)=0.39), as shown below:

Figure 1. Employment Status of Alumni 2019 After Graduation

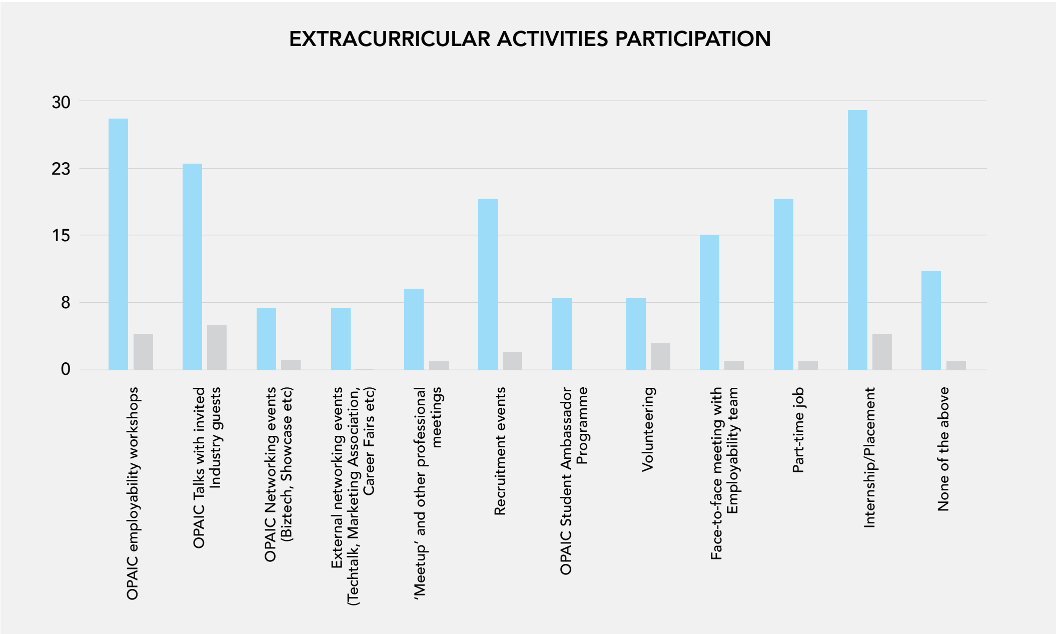


Extracurricular Activities

For those who responded to this survey, employment status was not correlated to the higher number of ECA participants participated in, correlation coefficient (r)=0.06, which can be considered a small effect. There was no correlation found between employment status and the higher number of various ECAs participants participated, with r=0.18, which is considered a small effect.

However, when comparing the participation in ECAs for those who found a full-time job and those who did not, it shows that those who found a full-time job were more proactive (see Figure 2).

Figure 2. Comparison of Participation in Extracurricular Activities for those Graduates Who Did and Did Not Find a Full-time Job After Graduation



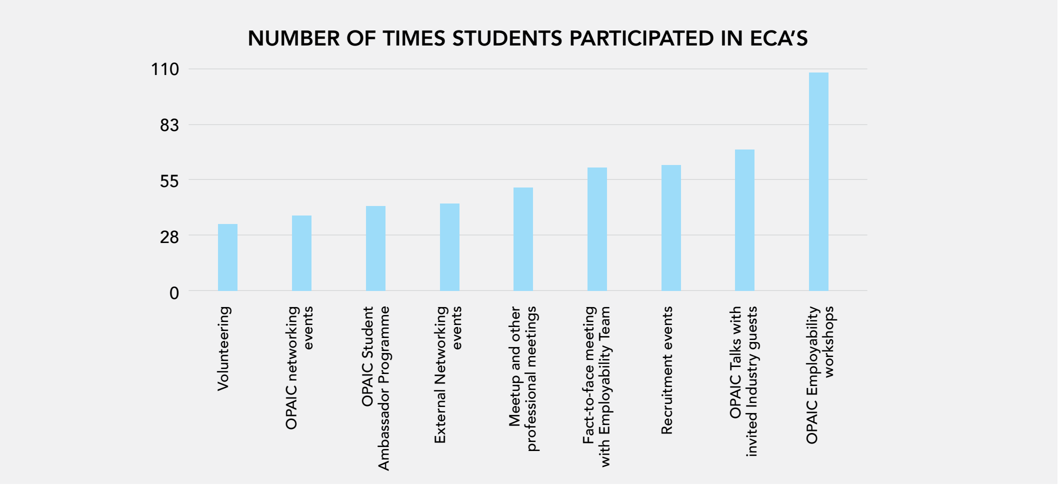
When participants were asked how many times they participated in each activity, they had to tick from options None, 1-3 times, 3-5 times, more than five times for each activity. Table 5 shows the percentage of the graduates' responses (n=65) with M and SD (SD) for each variable.

Table 5. Number of Times Graduates Took Part in Each Extracurricular Activity During Their Studies (n=65)

QUESTION	NONE	1-3 TIMES	3-5 TIMES	MORE THAN 5 TIMES	MEAN FOR CATEGORY (FROM 1 TO 4)	STD DEVIATION FOR CATEGORY (FROM 1 TO 4)
OPAIC employability workshops	26.15%	56.92%	15.38%	1.54%	1.92	0.69
OPAIC talks with invited Industry guests	49.23%	46.15%	3.08%	1.54%	1.57	0.63
OPAIC networking events (Biztech, Showcase etc)	73.85%	21.54%	4.62%	0.00%	1.31	0.55
External networking events (Techtalk, Marketing Association, Career Fairs etc)	72.31%	18.46%	7.69%	1.54%	1.38	0.69
Meetup and other professional meetings	64.62%	29.23%	4.62%	1.54%	1.43	0.66
Recruitment events	55.38%	38.46%	6.15%	0.00%	1.51	0.61
OPAIC Student Ambassador Programme	75.38%	15.38%	3.08%	6.15%	1.4	0.82
Volunteering Conservation Volunteers New Zealand (Auckland (CVNZ), Cancer Society, Auckland City Mission, Red Cross etc)	78.46%	15.38%	4.62%	1.54%	1.29	0.63
Face-to-face meeting with the Employability Team	60.00%	29.23%	7.69%	3.08%	1.54	0.77

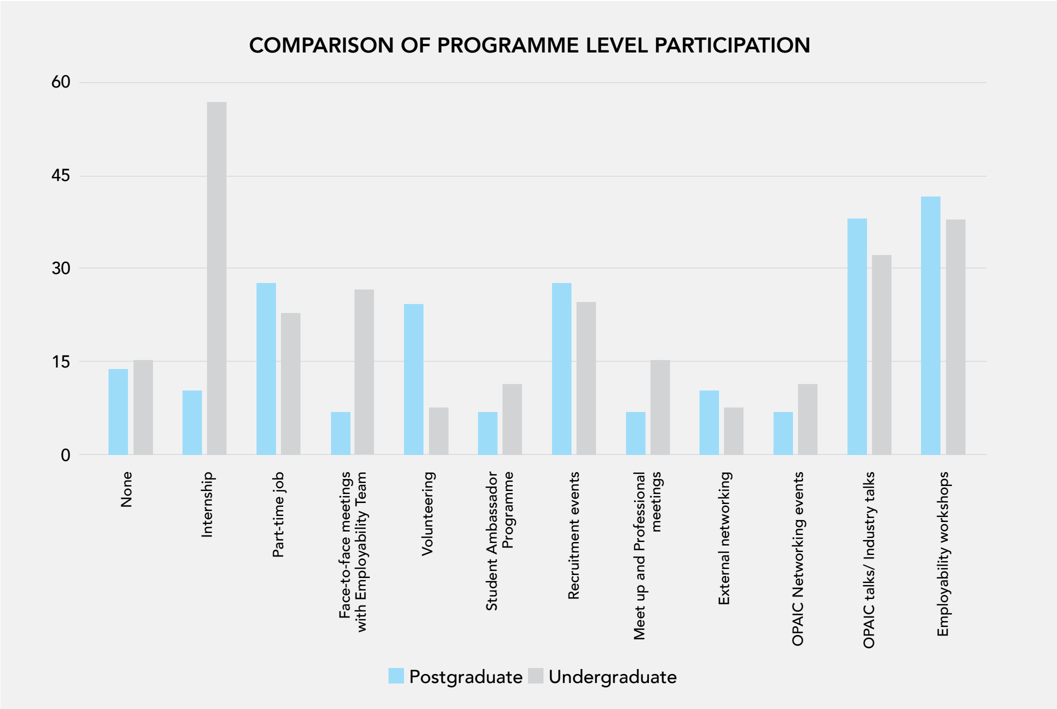
This data is presented graphically in Figure 3 and reports that the top three attended activities were OPAIC employability workshops, OPAIC talks with invited industry guests, and recruitment events. The least attended was the volunteering activity.

Figure 3. Comparison of the Number of Times Graduates Took Part in Each Extracurricular Activities During Their Studies



Crosstab analysis was used in SPSS to compare the level of participation in ECAs between two groups: undergraduate (n=53 = 100%) and postgraduate (n=29 = 100%). According to the data collected, it is not obvious if the undergraduate group was more proactive than the postgraduate or vice versa. However, it can be seen in Figure 4 that more undergraduate students were participating in meetups and other professional meetings, attending OPAIC networking events, Student Ambassador Programme, meeting with the Employability team and completing internships. Postgraduate students were more interested in Volunteering, attending OPAIC employability workshops, meeting with industry guests, and recruitment events.

Figure 4. Comparison Between Postgraduate and Undergraduate (n=81) Level of Participation in Extracurricular Activities During Their Studies.

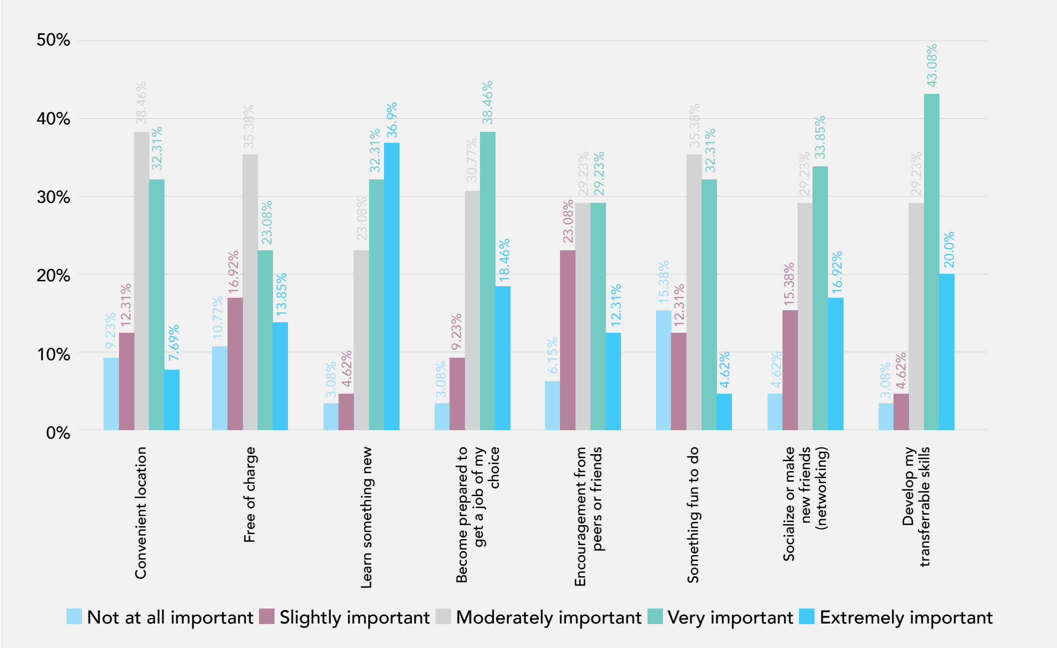


The alumni named the type of active engagement they demonstrated while participating in ECAs like presented (on the stage, in the room, etc) (n=18), met and talked to one or more people (n=35), exchanged contact details (business cards, LinkedIn, emails, etc) with professionals (n=18), asked questions based on the topic of the activity (asked facilitator, guest speaker, presenter) (n=19), participated in the discussion (n=21), completed the required tasks (n=20), lead a project (n=11), received recommendation letter/ certificate after completion (n=11).

The top five factors that motivated students to participate in ECAs were:

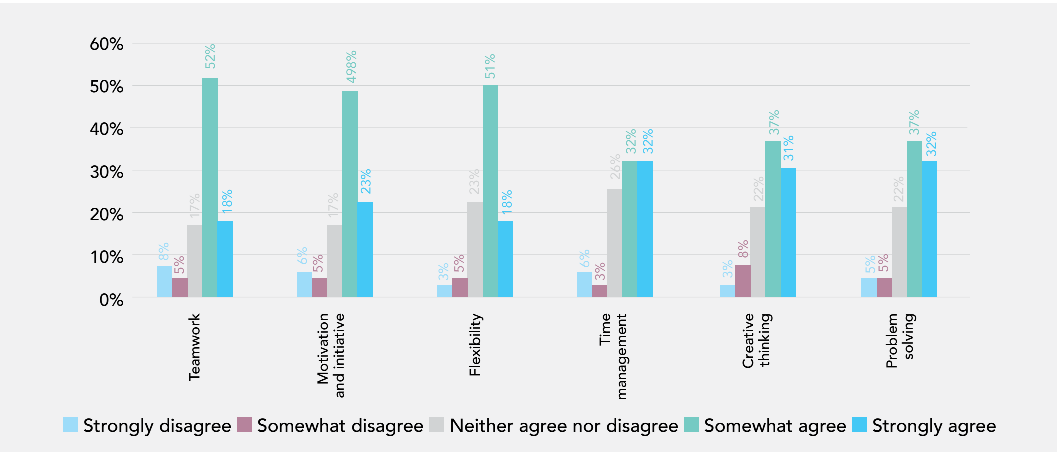
"something fun to do" was not at all an important factor (15%, M=2.98, SD=1.12); "encouragement from peers or friends" was slightly important factor (23%, M=3.18, SD=1.11); "convenient location" was a moderately important factor (38%, M=3.17, SD=1.05); "develop transferable skills" was a very important factor (43%, M=3.72, SD=0.94) and "learn something new" was an extremely important factor (37%, M=3.95, SD=1.03) (see Figure 5).

Figure 5. The Importance of Factors That Motivated Students to Participate in Any of the Extracurricular Activities During Their Studies.



Moreover, alumni reported that many transferable skills were developed through participation in ECAs from their perception (n=65), mostly participants Somewhat Agreed that they developed Teamwork (52%, M=3.69, SD=1.07), Flexibility (50%, M=3.77, SD =0.91), and Motivation and Initiative (49%, M=3.78, SD =1.05) (see Figure 6). It can be concluded that most of the participants who got to this question were aware of the transferrable soft skills they developed through ECAs participation. Hence, participation in ECAs has a positive impact on their employability skills.

Figure 6. Transferable Skills Developed Through Participation in Extracurricular Activities from a Graduates' Perspective (n=65).



Note. Teamwork M=3.69, Motivation, and Initiative M=3.78, Flexibility M=3.77, Time Management M=3.82, Creative Thinking M=3.85, Problem-solving M=3.88.

In the alumni's rating, a weighted average of M=3.80 indicates that ECAs participation enhances the listed transferable skills, as participants Somewhat Agree with this.

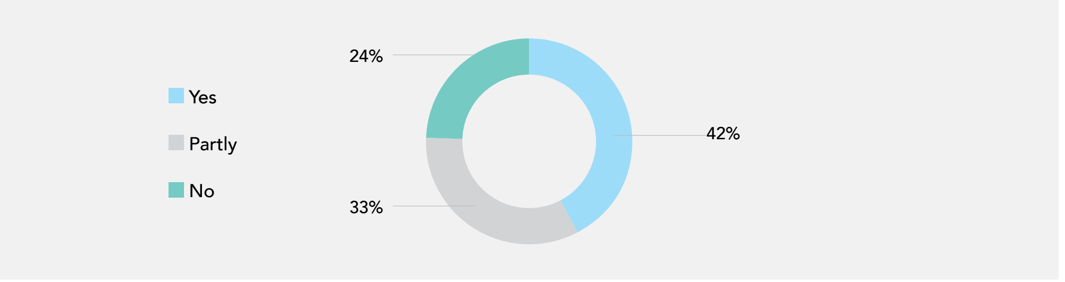
When asked participants who reported they found a job and participated in ECAs (n=57, M=2, SD=0.71) and if they believe ECAs helped them to find the job, 49% of the participants responded it Partially helped them, 26% of the participants said No it did not help them, and only 24% of graduates answered Yes.

Those participants who reported they did not participate in ECAs (n=12) named the reasons for this such as they were overwhelmed with studies/did not have time (n=5), did not know where to find the information about ECAs (n=2), already had a part-time job (n= 2) and were not aware of the ECAs benefits (n=1).

Employed graduates

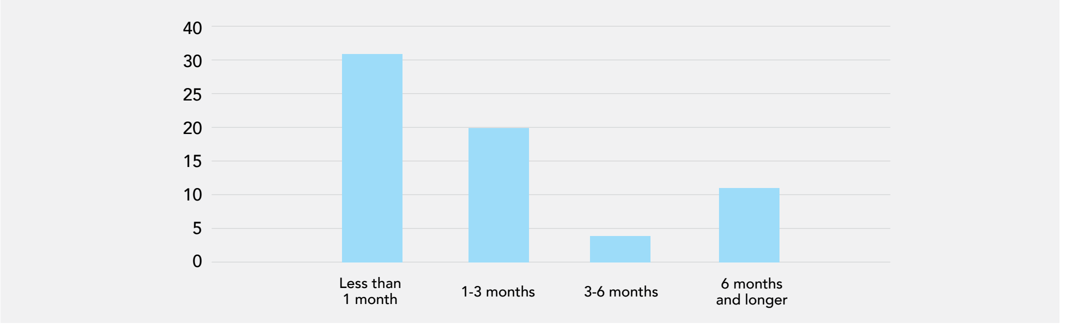
The participants who reported that they found at least one full-time job after graduation (n=66) continued to complete the following questions about their job satisfaction; if the job was related to OPAIC degree, the length of their job search before they became employed. Forty-two per cent 42% of the participants perceived their first full-time job after graduation was Related to an OPAIC degree, 33% of the participants said it was Partly Related, and 24% responded that there was No Relation (M=1.82, SD=0.80) (see Figure 7).

Figure 7. How a Full-time Job After Graduation Relates to Graduates Otago Polytechnic Auckland International Campus degree



Moreover, most of the participants (47%) reported that it took less than one month to find their first full-time job since they graduated (M=1.92, SD=1.09) (see Figure 8). The data collected demonstrated that most of the participants (61%) were Extremely and Somewhat Satisfied with that full-time job. Whereas Extremely and Somewhat Dissatisfied with that full-time collected only 9% of the responses (M=3.61, SD=1.03).

Figure 8. The Length of the Job Search Before Finding Employment.



Participants' Profiles

There were seven participants (undergraduate and postgraduate) that took part in the interviews who represented different nationalities and OPAIC programmes (see Table 6). Only one participant reported that they did not participate in ECAs.

Table 6. Interview Participants' Profiles

PARTICIPANTS	OPAIC PROGRAMME	FOUND JOB AFTER GRADUATION	SPENT TIME TO FIND A JOB AFTER GRADUATION	ECAS PARTICIPATION	ECAS HELPED DO FIND A JOB
Graduate 1	Graduate Diploma in Sales and Marketing	yes	1-3 months	Student Ambassador Program, recruitment events, employability workshops, Internship.	yes
Graduate 2	Post Graduate Diploma in Applied Management	yes	1 month	Did not participate in any.	no
Graduate 3	Master of Applied Manangement	yes	less than 1 month	Employability workshops, recruitment events, information interviews, volunteering for the Chinese community, Marketing Associations networking events; professional meetups.	partly
Graduate 4	Graduate Diploma in Sales and Marketing	yes	Less than 1 month	Student Ambassador Program, volunteering, member of Community Patrol NZ, recruitment event, internship.	partly
Graduate 5	Graduate Diploma in Hotel Management	yes	1-3 months	Internship, religious communities, part-time jobs.	yes
Graduate 6	Graduate Diploma in Sales and Marketing	yes	less than 1 month	Student Ambassador Program, employability workshops, part-time job, professional conferences, internship, professional training, skill development program, focus groups, volunteering charity for Paralympics.	partly

PARTICIPANTS	OPAIC PROGRAMME	FOUND JOB AFTER GRADUATION	SPENT TIME TO FIND A JOB AFTER GRADUATION	ECAS PARTICIPATION	ECAS HELPED DO FIND A JOB
Graduate 7	Graduate Diploma in Applied Management	yes	Less than 1 month	Student Ambassador Programme, networking, recruitment, meetups, showcase, volunteering, internship.	partly

Interestingly, when participants were asked what they would have participated in if they could go back in time, most of them said that volunteering was something they would spend more time on.

"If I get a chance to do it again, I will participate more in activities doing something like charity organisations." (Participant (P)1).

"Should better participate in internships and volunteering. As a volunteer, you can cultivate both self-value and social value." (P5).

"I missed a lot of volunteering where you guys went to plant trees, and I felt really bad about that. I really, really wanna do something useful for the Society." (P6).

BARRIERS AND CHALLENGES

Challenges

Participants reported the challenges they faced when they moved to NZ. Some of them experienced loneliness because they did not know anyone and moved by themselves. All participants said they shared the challenge of adapting to a new country, environment, rules, behaviour, and kiwi culture. Those participants with previous work experience back home reported that the most challenging part was to adapt to the new work culture because of the previous work experience back home that created some behaviour patterns. There were other difficulties except finding a job, they had to learn how to stay positive through ECAs (resilience). Two graduates shared that they had shy personalities, and this meant they had to learn from the beginning how to socialise, and they pushed themselves out of their comfort zone to meet people.

"I had difficulties talking to people, socialise. It is not that I am a snob, I'm just really shy. So, I pushed myself towards meetings or wherever I can see (meet) a lot of people. So, I would get this into stress situation and overcome this fear". (P6)

The participants faced the factor of a language barrier and difficulty understanding many accents, including the kiwi accent. Some participants changed their professional profile, which means they had to learn how to do a smooth transition to a new profession or industry in NZ, and ECAs helped them to progress.

Participants from different cultures acknowledged that the kiwi culture was very new and different from their own. For example, the Russian culture is very direct; Chinese culture - hard-working, working overtime is normal. However, it does not match the NZ culture - it was an obstacle to getting along with local people. Participants had to learn small talk, ways to communicate with lecturers and colleagues (part-time job), adapting to work in a multicultural environment and balancing personal and work life.

Barriers to participation

Participant 2, who did not participate in ECAs at all and the others who said they would like to participate more than they did, named some of the reasons why they could not do it:

– Did not know about many of the ECAs
– Did not know that it was important to participate
– Busy with studies and applying for jobs
– ECAs time clashes with classes.

REASONS AND MOTIVATIONS

The participants reported reasons that motivated them to participate in ECAs, and the researchers grouped them into four: ECAs-oriented, People-oriented, Job-oriented, Personal (see Table 7).

Table 7. Reasons and Motivation Factors to Participate in Extracurricular Activities.

ECAS-ORIENTED	PEOPLE-ORIENTED	JOB-ORIENTED	PERSONAL
To volunteer with OPAIC first because it's easier than by yourself.	– To find friends. – To avoid loneliness. – To connect with classmates and OPAIC staff.	– To improve knowledge about the culture at the workplace.	– To practice English. – To get close to the country. – To improve communications.
To be part of the Student Ambassador program to get inside information.	– To make people aware of you. – To network for business and personal purposes. – To socialise.	– To practice presentation skills. – To learn about the industry; – To find a job.	– To become an excellent person – To develop soft skills. – To push myself out of my comfort zone.
Volunteering - cultivate self-value and social value.	– To meet people who can introduce you to their colleagues (networking).	– Internship to get work experience (test knowledge on practice and improve.	– To get used to NZ accent.
To volunteer to make an impact and leave something.	– To create a circle from different nationalities. – To understand new society.	– To learn the expectations from industry, employer, Human Resources. – To learn the professional lingo. – To become aware of the reality of the job market;	

THE IMPACT OF EXTRACURRICULAR ACTIVITIES PARTICIPATION

Benefits

All participants, including the one that did not participate in ECAs, agreed that participation in different ECAs is very beneficial in many ways. The most popular benefit cited by participants was networking with potential employers, recruiters, and industry professionals to get industry insights, understand the expectations, and a chance to find a job. Secondly, they reported that socialising, communication, English, and other transferable skills were developing through participation in ECAs. There were more benefits that participants named, which are represented in Table 8.

"Attending those activities can make someone feel you are… getting...close to this country." (P4)

"In my personal opinion I have gained a lot of benefits when I joined ECA activities. I … met my peers and I was happy during my part-time job." (P5)

"And establishing a network is very vital for your development or career to start in NZ. Secondly, of course, you learn English and if you are attending professional meetings, professional conferences, you also learn your industry lingo (terminology), which is also very important for your career development." (P6)

Table 8. Benefits From Extracurricular Activities Participation

– The creation of new networks with peers and professionals (networking).
– The opportunity to stand out and let people know about you, your achievements, hobbies (personal branding) can lead to a suitable job.
– The improvement of communication, socialising, people skills, English language, and other transferrable soft skills.
– The feeling of connection and belonging to a country/company/group, keeping the inner balance and well-being.
– The opportunity to tap into the hidden job market.
– The ability to get industry insights, to accept the industry knowledge that people share with you.
– The chance to broaden your vocabulary and express your thoughts clear more clearly.
– ECAs can teach you to change behaviour patterns, habits from previous experience, to become flexible and adaptable to the new workplace culture. ECAs were opportunities to practise presentation skills, improve personality, learn a positive attitude to be more social. Your body language can develop, and this way, you can become more likeable.

Soft skills

OPAIC participants reported that many soft skills had been developed or improved through participation in ECAs, mainly communication skills, teamwork, and self-confidence. Some participants also said that they noticed time-management and personality improvement (more proactive and motivated). However, one graduate was sceptical about the motivation improvement through participation in ECAs.

Outcomes

The participants reflected on the outcomes and achievements that they believed were connected to their ECAs participation (see Table 9).

Table 9. Outcomes and Achievements Connected to Extracurricular Activities Participation.

Participant 1	**Negative:** Did not learn much new from Employability workshops, but it was a good summary and reminder to push ourselves forward. **Positive:** I got a job after the internship. I partly improved my employability skills. I received encouragement from the Employability team to do stuff, felt empowered after attending workshops.

Participant 3	**Positive:** I placed myself in the industry, gained self-confidence, got knowledge of the environment and industry. I found a job through the network within two months while I was a student. I am 100% sure that I enhanced my employability because I went on professional meetups and met people from the industry. I impressed the guy who hired me because I had industry understanding/insights, and I was well-prepared for this job. People were keen to meet me because of my "brave" personality because I approached them on LinkedIn. We became friends.
Participant 4	**Negative:** I do not think that I got a job because of volunteering – no connection. My employability was mostly improved by my previous experience. **Positive:** The internship helped me to get my first job. Most important, I improved my English speaking, writing, and listening skills. I found a friend from volunteering.
Participant 5	**Positive:** I got mentorship from my employer (managerial skills, start-up business knowledge). While I had a part-time job, I improved my communication skills, shared ideas with the team, felt happy, met friends, improved my chances to become employable. I learned time management - faster adapted to the work environment and managed to do work better.
Participant 6	**Positive:** I certainly believe I enhanced my employability. I communicate better in English, I learned how to express my thoughts clearly, and improved my vocabulary. I developed time management through Student Ambassadors meetings and volunteering.
Participant 7	**Positive:** I believe I became more employable. I learned platform skills and communication skills for my future career. I practised how to be proactive. I learned how to be aware of soft skills and knew how to self-reflect. In the beginning, I was nervous during the interview, but transferrable soft skills helped me at work. I learned about the kiwi work environment and developed time management. It helped me to feel more secure when I got my first job in my industry. I became more confident and knowledgeable if I compare the first week and last week at OPAIC.

DISCUSSION

Several factors should be considered in this section while discussing the findings. Firstly, the target population for the study was alumni who graduated from OPAIC in 2019. However, participants could graduate at any time during 2019. Hence, when the data was collected in 2020, it was more than one year since some of the participants graduated. During the data analysis, it was found that participants provided contradictory information where they answered that they participated in different types of activities and ticked those. The same participants answered Zero times participation in all the listed activities, including those they first reported engaged in.

Moreover, during the interviews, some participants realised they provided inaccurate information about the ECAs because they forgot about some of the ECAs they participated in. Therefore, it means that it was challenging for some participants to recollect the events. For future research, the recommendation would be to look at a group of graduates who completed courses no longer than six months prior.

Secondly, data about the ECAs participation was not collected for 31 alumni due to identified exclusion criteria. However, for future research, it would be interesting to observe the proactiveness of all students in general to understand the preferences and impact of particular ECAs.

This study aimed to determine if there was a correlation between the employment status of graduates and their engagement in ECAs. It was not proved statistically through correlation and regression data analysis that employment status was connected to the higher number of ECA participants participated in. However, it was evident that employed participants had more engagement in ECAs than the unemployed. Therefore, it might be the case that the correlation did not appear due to the lack of variable change. Nevertheless, no mathematical correlation does not mean there is no causation (Penn, 2018). Employment outcomes for alumni 2019 could be caused by several factors, like previous work experience and participation in ECAs, including active engagement. Further research is needed to investigate these.

Meanwhile, qualitative data from the survey and interviews helped to answer the study question on how engagement in ECAs impact OPAIC graduates' employability.

The findings showed that participants participated in different ECAs when they were students, such as internal: OPAIC Employability workshops, Student Ambassador Program, OPAIC networking events, recruitment events, face-to-face meetings with Employability team, OPAIC talks and industry guests' events, internships; and external: volunteering, meetups and professional meetings, networking events and part-time jobs. The study found that internal events were the most attended. This can be explained by the convenience and accessibility factor (Dragin-Jensen et al., 2018). Amongst the least attended external events was volunteering. However, during the interviews, participants (undergraduate) talked about the importance of volunteering and reported that they did not participate but regretted it and realised that they wanted to do more. This aligns with the literature that students might perceive volunteering as low value because there is no direct connection to get the job from this activity (Tymon, 2013). Nevertheless, OPAIC participants perceived as high value the development of transferable soft skills and learning something new from ECAs participation. This aligns with several researchers findings where learning and developing were among the top motivation factors for involvement in ECAs (Akinrinmade & Ayeni, 2017; Arcodia et al., 2014). The literature findings reported that postgraduate students were more proactive and focused on career-related activities (Chhinzer & Russo, 2018). However, this study shows that both undergraduate and postgraduate students demonstrated participation but in different ECAs. Undergraduate students were more interested in meetups and professional meetings, OPAIC networking events, the Student Ambassador program, meeting with the Employability team, and internships. Postgraduate students were more interested in volunteering, OPAIC employability workshops, meeting with industry guests, and recruitment events.

A smaller group of employed participants reported that they perceived ECAs participation helped them to find a job. The findings from the interviews showed that it was not evident from participants when they were students that there was a direct connection between participation in ECAs and finding a job. This finding supports the findings of Tymon (2013) that a smaller group of students recognise the value of participation for employability development. However, four of the seven interviewed participants reported that their internships and part-time jobs continued as full-time employment as soon as they graduated.

Most of the participants (75%) who found at least one full-time job after graduation from OPAIC reported that this job was related or partly related to their OPAIC degree. Therefore, this does not align with Pais (2012) finding that graduates usually accept any first job to pay the bills and study loans. The findings of this study demonstrate positive outcomes, and according to the "magic bullet" model, OPAIC provided the opportunities to gain academic knowledge and develop employability skills for international alumni in 2019.

In line with the literature, participants reported challenges being new to the country, with lack of knowledge about local culture, industry insights, workplace environment, no professional and personal connections, poor or average English skills, and being shy personality (Clark et al., 2015; Nguyen & Hartz, 2020). The NZ accent was one of the challenges not identified in the literature for international students but was mentioned by all interview participants. All participants are not aware of the NZ accent prior to their arrival to the country. However, from the study by Gordon (2009), it was evident that people around the world have trouble understanding New Zealanders. Those factors usually lead to the difficulty of the transition to the local job market (Berquist et al., 2019; Jackson, 2017).

Moreover, the data generated for reasons for low engagement collected from surveys and interviews support findings (Akinrinmade & Ayeni, 2017; Gribble, 2015; Tran, 2017) that participants either did not believe in the importance of employability skills development and participation in ECAs; or they were busy with studies and did not have time to participate or to search for ECAs info.

Although participants experienced challenges and had barriers to participation, they expressed a positive perception of the ECAs participation and reported that they believe engagement enhances their employability.

Participants said they believe engagement in ECAs develops transferrable soft skills, and the majority reported they improved communication skills, teamwork, and self-confidence. Moreover, findings show that participants recognised many benefits from participation in networking and industry events, volunteering, internships, part-time job, student communities (Student Ambassador program), employability workshops, and career guidance services. These findings support many previous similar studies (Akinrinmade & Ayeni, 2017; Chen et al., 2018; Education New Zealand, 2021; Fu, 2021; Kamerade & Paine, 2014; Lau et al., 2014; Lundberg et al., 2018; Mitchell et al., 2016; Nilsson, 2019; O'Connor & Bodicoat, 2017; Stam, 2010; Van Hoye et al., 2013; Ylonen, 2012). Interestingly, one participant reported that she was encouraged and empowered after attending the OPAIC employability workshops. This aligns with Robertson (2013), who found the same benefit from the engagement with career services.

RECOMMENDATIONS

This section provides recommendations based on the primary and secondary data collected from the semi-structured interviews and literature review. Initially, recommendations were made by participants and researchers to OPAIC as a tertiary education provider. However, these recommendations are applicable to any other HE provider interested in improving students' employability and raising the level of engagement in ECAs.

Recommendations to Students from Alumni

The participants shared their observations and made several recommendations for current and future international students. Some participants recommended not to leave the job search and document preparation to the last moment and use assistance from OPAIC professional staff while studying. One of the observations by participant 4 was that the interns from OPAIC at her current workplace do not treat an internship as a chance to get a job, they see it only as a credit for programme completion and complete it as soon as possible. Participant 4 recommended attention not to be paid to the company's industry for an internship but to treat it as the chance to demonstrate their advantages, establish a good network and learn as much as possible. Participant 3 recommended not to ask for a job directly at the networking events as it puts pressure on others and makes the conversations uncomfortable.

"It's really important not only come to this hard skills development but also (attend) just general meetups with anybody who has been in this environment for some time because they really can share some valuable knowledge." (P6)

Recommendations to OPAIC from Alumni

Data collected during the interviews showed that there were complaints from several participants, i.e., they did not have two or more internship options.

"The placement team they sent your CV to different companies and then they pick you right…I was given only one option. And I would like to have more." (P6)

There was a lack of industry guests during studies connected to the digital marketing industry. Some participants experienced a lack of information about the ECAs on campus, did not receive any emails about the events/activities. One participant observed that some of their classmates were not aware of employment's legal side, so they went through challenging moments with their workplaces, and it was scary.

However, there were also words of appreciation from participants who acknowledged that OPAIC provided a lot of services and were happy about it.

Based on the participants' experience, the following recommendations were provided to OPAIC:

1. Invite more guest speakers from different industries.
2. Go to classes and send emails to promote ECAs.
3. Make sure the timetable does not clash with employability events on campus.
4. Push students to engage with industry representatives to make them learn how to ask questions and express themselves.
5. Make sure to raise awareness of the benefits of ECAs participation and how it relates to employability.
6. Invite more alumni to share success stories or to be mentors.
7. Provide more than one option to choose from for an internship.
8. Be transparent about the reality of the job market in NZ to avoid high expectations.

Recommendations to OPAIC from the Researchers

This study demonstrated that it is essential to make international students aware of the transferrable soft skills and help them to reflect on their capabilities gained through classes and ECAs engagement. Moreover, it would appear important to provide evidence and endorse those capabilities to encourage them to be proactive (Jorre de St Jorre & Oliver, 2018). The Learner Capability Framework has been implemented at Otago Polytechnic (Dunedin) and applied through the process of mapping capabilities to students' courses via the "I Am Capable" online tool (Otago Polytechnic, 2019). However, the recommendation for OPAIC is to map the capabilities with ECAs outcomes and highlight the importance of the development of these. If the process of gaining capabilities was transparent, engaging lecturers, students, the Employability team, and employers, the value of getting those capabilities would be evident to students.

The endorsed capabilities portfolio is getting popular nowadays as it contains self-reflection and understanding of how far students have progressed (Jorre de St Jorre & Oliver, 2018; Pool & Sewell, 2007).

However, OPAIC has to promote proactive participation first to get the students to take more responsibility to engage and invest in the capabilities development and endorsement (Tymon, 2013).

CONCLUSION

This study was carried out to investigate the impact of international students' participation in ECAs on their employability. Nowadays, the employability of international graduates is one of the main challenges for HE providers, employers, and students themselves.

HE providers cannot guarantee that students will get a job in a particular industry. However, it is possible to create a strategic plan for coordination, monitoring, and facilitation of employability skills development through ECAs, and adding to an academic degree.

As the study has demonstrated, most of the OPAIC participants acknowledged the helpful OPAIC services, the benefits from engagement in different ECAs, the development of transferrable soft skills that employers want to see in the graduates, and the enhancement of employability. However, international students struggled to find time to participate in some of the ECAs, and it created low engagement.

Therefore, OPAIC must continue promoting and raising awareness about the positive impact of ECAs participation and monitor the outcomes.

Anastasia Timoshkina was working in the Student Success and Employability team at OPAIC when was researching the 'Employability of international students' topic as part of her Master in Applied Management (Business) degree. Anastasia is passionate about guiding students in their development and help them to grow into the best selves.

Barnaby Pace is a Principal Lecturer are Otago Polytechnic Auckland International Campus where he teaches Research Methodologies and Analytics courses for Applied Management students. He holds qualifications in Psychology, Cognitive Science, Education and Quality Systems.

Lorraine Skelton is an industry professional turned academic, with experience in course and assessment design, undergraduate and post-graduate research projects, collaborative project work, project and change management. Past roles have been at a senior level, based in both strategic initiatives and project cultures whilst focusing on excellence in collaboration and communication.

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https://doi.org/10.34074/rere.00107

Article

ASSESSING ORGANISATIONAL CLIMATE CHANGE RISK

April Love Naviza, Tavish Sehgal, Marianne Cherrington, & Farhad Mehdipour

ABSTRACT

Strategy and risk are two sides of the same coin. Hindsight has proven that risk from a global pandemic was underestimated; Coronavirus forced organisations to re-evaluate their strategy. Furthermore, sophisticated assessments of risk are not only the trend, but they are also prudent and opportune. For organisations, the growing move to assess climate change risk is important from a mitigation perspective, but vitally, as an opportunity gauge as well. This paper will be a summary review of risk from an organisational climate change assessment perspective using traditional risk matrix traffic lights and risk dashboards, to more fine-tuned technologies. This paper will also examine changing, nascent trends in climate change risk assessment as well as opportunities that can be manifested by adapting now and responding with a longer-term view of strategy within a global economy. Currently many organisations are sentient to the rewards afforded to practitioners of sustainability. They are investigating and revising their risk management processes and risk appetite to form a culture more aligned to the imperatives that climate change action will require, given diverse stakeholder demands and expectations. This paper looks at leading organisations that are becoming more receptive and agile in a future that adapts alongside climate change. The conclusion recommends a strategy for climate change risk assessment and anticipates the world-leading disclosure requirements under The Financial Sector (Climate-related Disclosure and Other Matters) Amendment Bill.

Keywords: climate change, climate change risk, risk management, risk strategy, risk dashboard

INTRODUCTION

Climate change is the overarching concern of our modern era; the earth and humanity are at a tipping point. The effects of climate change are global and unprecedented in scope, ranging from fluctuating weather patterns that threaten food production to rising sea levels that escalate the risk of catastrophic flooding. Furthermore, if substantial action is not taken now, adapting to these impacts will be arduous and expensive in the future.

Climate change is a long-term (decades or longer) climate change that is identifiable which could be because of natural variability or because of human activity (IPCC, 2018). Furthermore, Scientists have assessed global warming and attributed this to an increased accumulation in the atmosphere of glasshouse gases, causing changes in weather patterns and the frequency and severity of extreme weather events, such as heavy rain, heatwaves, and droughts (AghaKouchak et al., 2020).

Climate change is already affecting New Zealand, and it is very likely that it will pose constraints and challenges to the New Zealander way of life in the coming decades. Over the last 50 years, rising Greenhouse Gas (GHG) concentrations have resulted in rising average New Zealand temperatures (Harrington, 2021). The warming of the global climate system is unmistakable, and many of the observed climate changes have been unprecedented in both short and long timescales (Bäck, 2020). The influence of anthropogenic climate change has emerged beyond a doubt (Swain et al., 2020). For organisations, the risks are now impacting the bottom line. New Zealand has become the first country in the world to introduce legislation requiring mandatory climate-risk reporting for the financial sector. Climate change leadership is being forced by rising climate-risk and statutory requirements.

The primary objective of this research is to prototype a framework that will reveal organisational emissions risk based on carbon emission consumption within a dynamic business environment. This report was inspired by the National Climate Change Risk Assessment (NCCRA), which encourages people to act and contribute to long-term sustainability. The research method was led by the NCCRA, considering the opportunities and risks of taking a leading stance on emissions mitigation; topics were explored in depth for various perspectives on climate change, from a stance that increasingly, regulation will force organisations to reduce emissions.

A scanning review of nascent scholarly literature from 2020 onward was undertaken using Google Scholar; the Coronavirus pandemic altered views regarding urgency of emissions mitigation initiatives. It became evident that assessing what firms continued to measure (or not) and what organisations such as the Climate Leaders Coalition were reporting, was an indicator of how climate change risk was being side-lined in the uncertainty of a pandemic environment. Reports from organisations such as the Sustainable Business Council, Sustainable Business Network, Toitū Envirocare and New Zealand Green Building Council set a tone and pathway for focus. Large firms, corporations and SMEs committed to the Climate Leaders Coalition, released reports regarding emissions. The interplay with government statements regarding emissions and climate change was often in the news and helped shape discussions on the dynamic nature of risk, discussed via Institute of Directors papers.

This paper looks at leading organisations that are becoming more receptive and agile in a future that adapts alongside climate change. Additionally, the overall purpose is to consider visual representation of key emission factors, to support organisational emissions targets. Knowing what to measure, monitor and how to mitigate a carbon footprint is complex, but is the basis for environmental sustainability. This paper recommends a strategy for climate change risk assessment to anticipate the world-leading disclosure requirements under The Financial Sector (Climate-related Disclosure and Other Matters) Amendment Bill.

The report acknowledges that organisations throughout New Zealand are keen on reporting and reducing their emissions, with the bonus of attaining positive brand exposure. As a result, this report will introduce a prototype that will aid in measuring, monitoring, and visualising organisational Greenhouse Gas (GHG) emissions and progress towards their mitigation. Estimates of Greenhouse Gas emissions from the energy sector, industrial processes, and other product use, waste, and land use change will be revealed by this prototype. These data will incorporate the most serious emissions risks based on priority and urgency. As our organisations and data analytics progress, technological improvements to the dashboard can make it more efficient and effective, and more attuned to reducing carbon emissions.

THE NATIONAL CLIMATE CHANGE RISK ASSESSMENT

New Zealand's first National Climate Change Risk Assessment (NCCRA) was commissioned by the Ministry for the Environment to identify the most significant risks the nation faces from climate change (Ministry for the Environment. 2020). Five domains are assessed (Human, Built/ Natural Environment, Governance, Economy) for the Government's national adaptation plan. The NCCRA is based on Arotakenga Huringa Āhuarangi (AHĀ), a framework, for systematic comparison of a broad range of risks (Ministry for the Environment. 2019).

While many of the risks are interlinked, these groups can help recognize 'owners' of risk i.e., those who have a role to play in managing the risk over time. The NCCRA, is not positioned within a Māori framework; the relationship of Mātauranga Māori is not domain appropriate with data issues (Cherrington et al, 2020c, 2020d).

The AHĀ framework is useful for local government, iwi/hapū and other organisations to undertake their own climate change risk assessment or procuring new evidence on climate risks. Key initiatives must enable mitigation of emissions. The framework is a means to evaluate climate change opportunities and risks in terms of their nature, severity, and urgency from a wide range of information sources, based on a three-stage approach to assessing and comparing risks. Templates and guidance materials assist users in assessment and methodology. The relationship between documents is in figure 1 (Ministry for the Environment. 2020).

- It provides an approach to assess/compare national risks
- 5 Domains used - Economy, Human, Built Environment, Natural Environment, Governance
- Outlines a Governmental approach to improve resilience to climate change effects

Figure 1 – Process for Risk Assessment, NCCRA and National Adaptation Plan

Risk Assessment Report | National Climate Change | National Adaptation Plan

Using a broad variety of information sources, the system offers the means to determine climate change risks and opportunities in terms of their existence, magnitude, and urgency. It encompasses:

- A three-stage approach to risk assessment and comparison
- Templates to be used in the completion of the different evaluation measures
- To support users in adopting the technique, instruction materials

The first step towards producing a National Climate Change Risk Assessment (NCCRA) is this framework. The framework makes it possible to systematically compare a wide range of climate change risks, using a panel of experts in a variety of relevant specialities. A handful of climate change opportunities were also identified.

The system would also be useful for local governments, iwi/hapū and other organisations to carry out their own assessments of the risk of climate change or to provide new information on climate risks. For example, risks to the built environment are of particular concern to the infrastructure of business, with eight priorities from extreme weather events, drought, changes in rainfall, temperature, sea-level rise, fire weather, snow, or wind (Ministry for the Environment, 2020):

- B1 – Risk to potable water supplies (Currently = Major Risk, 2050 = Extreme Risk);
- B2 – Risk to buildings (Currently = Major Risk, 2050 = Extreme Risk);
- B3 – Risk to landfills and contaminated sites (Currently = Moderate Risk, 2050 = Major Risk)
- B4 – Risk to wastewater and stormwater systems (Currently = Major Risk, 2050 = Extreme Risk);
- B5 – Risk to ports and associated infrastructure (Currently = Minimum Risk, 2050 = Moderate Risk);

– B6 – Risk to transport networks (Currently = Major Risk, 2050 = Major Risk);
– B7 – Risk to airports (Currently = Major Risk, 2050 = Major Risk);
– B8 – Risk to electricity infrastructure (Currently = Moderate Risk, 2050 = Moderate Risk).

These risks expose our vulnerabilities and should be prompting alternate action. Extreme flood events are expected to increase around NZ, with estimates of up to an 11% increase in the 1 in 10 year, 1-hour duration storm by 2040 and up to 34 percent by 2090 (Building Research Association of New Zealand Build, 2021). Continuous sea level rise also greatly contributes to both coastal and inland flooding, exacerbating coastal storm tides, which in turn leads to more regular and extreme flooding in coastal areas. Extreme sea levels, predicted to be reached just once per 100 years are projected to occur at least annually (on average) by 2050-70 (Pearce et al., 2019).

Drought is already affecting the availability of water in New Zealand. Recent droughts, especially those in Auckland and Northland, have had significant impacts on water sources around NZ. The Annual Performance Reports of Water NZ indicate that about 50% of Councils (on average) say that they have introduced some form of water restriction since 2014 (Zealand, 2017). This significant proportion highlights the seriousness of this risk to Councils, businesses, and communities (Building Research Association of New Zealand Build, 2021). This is further compounded by the fact that water supply schemes in many councils are underfunded; because household metering is not mandatory for a variety of supplies, the ability to handle leakage and demand levels effectively is inhibited.

ORGANISATIONAL CLIMATE CHANGE RISK

For organisations, risk and reward are always in play; they can be balanced with sound strategy. The Covid-19 pandemic has shown us how disruptive under-estimated risk can be and how strategy can be blind-sided. Recently, the risk from climate change has moved from a remote possibility to the category of observable and likely. Of course, the sector or industry concerned is a highly relevant factor in assessing climate change risk for organisations. New Zealand organisations are preparing for climate-related disclosure, but you cannot manage what you do not measure, but for many of New Zealand's small businesses an emissions toolbox is a start (Impact Report, 2021). For example, measuring, monitoring, and mitigating emissions will be vital if financial disclosures are mandatory. The risks in the five domains are assessed by urgency as well as by value domain. For organisations, governance and economic risk are pivotal (Ministry for the Environment, 2020):

– G1 – Risk of maladaptation to climate change (Urgency = 83rd percentile, Consequence = Extreme)
– G2 – Risk from unfit adaptation arrangements (Urgency = 80th percentile, Consequence = Extreme)
– E1 – Risk to govt (economic cost ex productivity) (Urgency = 90th percentile, Consequence = Extreme)
– E2 – Risk to financial systems from instability (Urgency = 80th percentile, Consequence = Extreme)

Human costs are urgent and extreme in consequence and will begin to affect staffing and labour markets. Only four opportunities were identified with limited organisational implication (Ministry for the Environment, 2020):

– EO1 – Increased primary sector productivity due to warmer temperatures (NIWA, 2016).
– EO2 – Adaptation-related goods and services (Channell et al, 2015), (Airehrour et al., 2019).
– HO1 – Lower cold weather-related mortality (Dunn et al., 2021).
– BO1 – Lower winter heating demand (Ministry for the Environment, 2017).

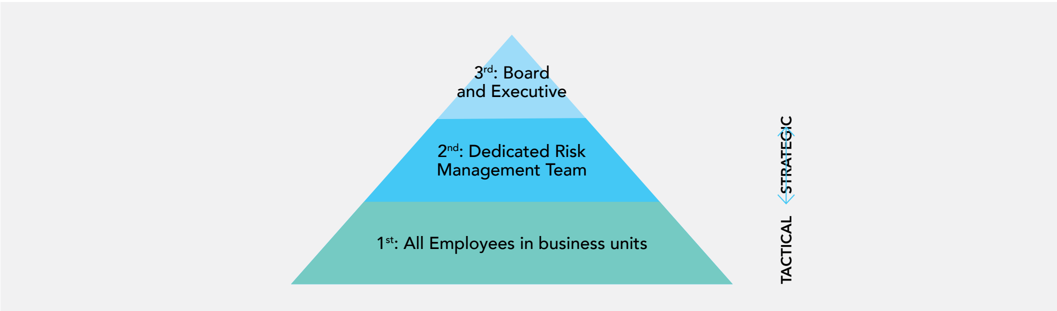
Audit and risk committees report to boards and assist in producing accurate financial statements in compliance with all applicable legal requirements and accounting standards; in particular, they review activities of a company to ascertain the exposure to financial and other risks (Institute of Directors, 2020).

"The Board needed to have a company-wide risk framework and keep its eye firmly on health and safety risks. It should have ensured that good risk assessment processes were operating throughout the company. An alert board would have ensured that these things had been done and done properly" (Wellman, 2012).

With documents such as the National Climate Change Risk Assessment and statutes such as the Climate Change Response (Zero Carbon) Amendment Act 2019 and upcoming Financial Sector (Climate-related Disclosure and Other Matters) Amendment Bill, "all boards should ensure they are aware of the potential impact that climate change could have to their organisations and take action to mitigate climate risks, including physical, transition and liability risks" (Institute of Directors, p. 1. 2021). Risks can be inherent (gross risk) as a measure of exposure and inherent, as a measure of risk after controls/mitigations have been introduced; thus, risk can be ranked by priority.

A board's primary interest from a risk perspective is those that threaten the achievement of the entity's strategic objectives (a link that if often missing); this focus is often counter-intuitive to broader environmental far-sightedness. In setting strategy, 'risk appetite' must balance risk with reward; this may change as an organisation attains longevity. Risk management is maintained with 'three lines of defence' throughout an organisation (Luburic, 2015); see figure 2.

Figure 2 – Three lines of defence for organisational risk management



Risk can be stated as a combination of the consequences (severity/impact) of an event and likelihood of its occurrence. Recently, risk velocity has established itself as a measure of risk, as risks that develop more slowly can be managed differently. Consequence and likelihood can assess risk; velocity is needed to manage risk. For organisations, this third measure can radically change risk perception and stress the need to view risk as a highly inter-connected construct; 'risk domains' may restrict strategy and limit more holistic, interactive views.

Risk management should not be undervalued. Prioritising risk allow organisations to minimise exposure to risk versus strategic objectives; it improves performance and addresses compliance to enhance decision-making. Typically, a risk matrix is used to assess risk (see figure 3):

Figure 3 – A two-dimensional likelihood and consequence risk graph

	REMOTE LIKELIHOOD	UNLIKELY LIKELIHOOD	POSSIBLE LIKELIHOOD	LIKELY LIKELIHOOD	NEAR CERTAIN LIKELIHOOD
catastrophic consequence					
major consequence					
moderate consequence					
minor consequence					
insignificant consequence					

ORGANISATIONAL CLIMATE CHANGE RISK

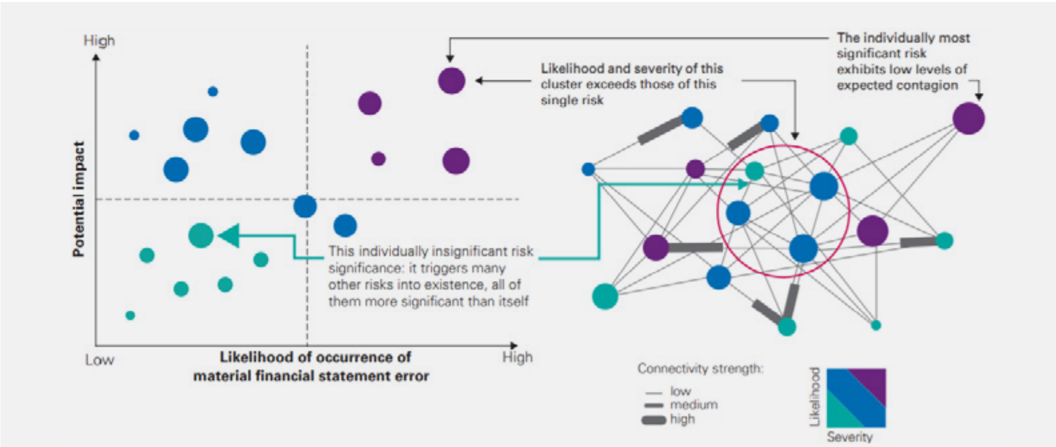
Is a 2x2 depiction sufficient as velocity and interaction play an increasingly weighty role in our global economy?

Risks affecting organisations are seldom insular; the two dimensions of likelihood and consequence are restrictive and worse, they can be misleading (Williams et al., 2006). Approaches such as Quantitative Risk Assessment (QRA) have changed little since the 1980s, yet in applied fields, these techniques have been refined to be more specific to situation and circumstance. Risk assessment methods as multidimensional and are vital in process design, safety systems functions, as well as operation management (Villa et al., 2016).

Nevertheless, a two-dimensional view can be simple enough for organisations to be alerted to changes and risk velocity, especially when dashboards are used to visualise risk alerts or indicate velocity shifts. Analytics can process cumulative and continuous data from data tables for visibility as charts or graphs. Dashboards can embrace the visual analysis of the input data provided by the organization. Colour-coded visualisations, alerts and heat-maps can be assessed in business units. At executive level, prediction analysis can highlight future areas of interest, based on past and present data. Improved data analytics create advances in rich, interactive visual analytics tools with graphical business ecosystem intelligence tools in corporate settings (Basole, 2014).

As evidenced during the Coronavirus pandemic, one extraneous event can result in multiple upshots with different impacts and velocities; a variety of controls and tactics must be employed. Prioritising high consequence risk is not always the best approach. A clearer appreciation of risk interrelationships is needed to position the threat of risks. Furthermore, it is in line with more modern approaches that strategise across a whole spectrum of interests, assets, and activities, especially in the context of climate change and its likely impacts (Saunders et al., 2020). Better audit evidence can be recorded, with better and quality decisions.

Dynamic risk assessment offers enhanced insights using probabilistic and advanced algorithms with data analytics; velocity and risk interconnectedness can be assessed in a multidimensional risk analysis. Critical clusters or contagion triggers can be ascertained. As revealed in figure 4, an interconnected dynamic risk assessment view can change perspective, decision-making and strategic direction, colour-coded for likelihood and severity; the insight garnered is in stark contrast to the likelihood x severity 3-colour, 2D graph shown.



(KPMG's Dynamic Risk Assessment, p.3, 2019).

Dynamic risk assessment offers organisations the capability to innovate, evolve and transform risk management processes in rapidly changing organisational environments. Features can be highlighted and magnified using multi-source and multi-view data (Cherrington et al, 2019, 2019b, 2019c). Agility and resilience in risk management processes can be enhanced by dynamic capabilities such as sensing, seizing, managing and transforming (Teece, 2007):

– Sensing and shaping risk to enhance opportunities and mitigate threats.
– Seizing opportunities and capabilities from acquired insights (Cherrington et al., 2021, 2021b, 2021c)
– Managing growing threats and adaptation to changing risk environment (Cherrington, 2019).
– Transformational differentiation and operational reconfiguration capabilities.

We live in a dynamic organisational environment where data is a key source of ; risk assessment should be implemented to prevent or reduce the likelihood of undesirable events from occurring or to decrease the severity of consequence should an event occur. Sensing and responding to risks can transform risk management nature of an organisation (Didi-Quvane, 2019) by turning risk tasks into advanced capabilities by orchestrating skills; organisations that take a leading stance can gain competitive advantage (Teece, 2007).

DIRECTOR DUTIES AND CLIMATE CHANGE

Climate change litigation, regulatory enforcement and other legal action is a source of financial risk; now, the physical risks of climate change adaptation and adaptation capacity are relevant to financial risk assessment. A range of climate-related liability risks to borrower, book, portfolio, or system must be respected as pertinent physical risk occur (Barker, Dellios & Mulholland, 2021). Sustainability investment criteria, climate-related disclosure principles and mainstreaming of climate-related risks into investment decisions can ameliorate adaptation and redirect vulnerable (United Nations Environment Programme, 2021).

Advice regarding director duties relating to climate change is mounting; evolving market expectations have elevated the standard of care required to discharge a directors' duty of due care and diligence (Hutley & Hartford-Davis, 2019). There are liability risks for misleading disclosure, such as greenwashing, or inconsistency between stated position and ambition on climate risk management, and internal strategy, plans and actions.

New Zealand is a leader in legislation requiring disclosure; The Financial Sector (Climate-related Disclosure and Other Matters) Amendment Bill is an omnibus bill that broadens non-financial reporting, requiring/supporting climate-related disclosures by certain FMC reporting entities; it signals the growing number of risks related to the environment that support a broader approach to sustainable operations (Zhukov & Cherrington, 2020) and rapidly changing ESG decision-making responsibilities for boards (Cherrington et al., 2020, 2020b).

TAKING THE LEAD ON ORGANISATIONAL CLIMATE CHANGE

The number of organisations involved in New Zealand's Climate Leaders Coalition (CLC) decreased by about ten percent in 2020; the immediacy of coronavirus belied the need to reduce emissions and take a longer-term sustainable view within organisations. For example, founding signatory Air New Zealand had a new CEO in February 2020 and the country locked down in March, grounding most international flights until the 'Trans-Tasman travel bubble' in April 2021. For an airline, being 'on a mission to reduce emissions' is not easy in a pandemic. The impact from coronavirus "resulted in Air New Zealand operating significantly fewer flights… which has seen our carbon emissions reduce by 19 percent" (Air New Zealand Sustainability Report, p. 3, 2020). International shipping and aviation are exempt from binding agreements of the Kyoto Protocol, yet still, Air New Zealand sees decarbonising the business as vital to long-term success and key to their business model. "One thing that is absolutely guaranteed is that there will be a far greater sense of urgency in addressing the Climate Emergency" (Air New Zealand Sustainability Report, p. 4, 2020).

Global Goal #17 is 'partnership for the goals'. The CLC and Sustainable Business Council (SBC) believe that the work and advice of the Climate Change Commission to the Government is vital for New Zealand's emissions transition pathway and zero carbon future. A joint CLC/SBC submission to the CLC (Climate Change Commission: 2021) for consultation from 150 businesses, contributing more than a third of New Zealand's GDP recommends:

– low carbon transport investment with a pathway that accelerates fleet transformation
– transitioning out process heat retrofits and conversions and support for energy efficient technology
– establishing accelerated methane and nitrogen reduction technology pathways
– building a New Zealand bioeconomy via major public-private partnership
– incentivising a substantial scale-up of energy efficiency that is effective across the economy (Submission to the Climate Change Commission on 2021 Draft Advice for Consultation, 2021)

The CLC and SBD backed the Government's decision to fast-track a zero-carbon pathway for the public sector using three CLC/SBC briefing recommendations on climate action priorities and advocate use of an electric fleet.

For large enterprises on a zero-carbon journey, Toitū Envirocare launched a new carbon assess platform to collate and track combined carbon emissions of their New Zealand-based suppliers; SMEs have a simple, cost-effective carbon emissions measurement tool also, with benchmarking options (Envirocare, 2020, November).

Summerset is the first retirement village to be Toitū carbonzero certified; it is part of their overall sustainability journey and pledge to reduce their environmental footprint. Certification involved emissions measurement, reduction strategy, with third-party verification for bestpractice. A key benefit will be to reduce operational costs and model eco-leadership. (New Zealand's first Toitū carbonzero certified retirement village, 2020).

Corporate net-zero targets are becoming the norm; science-based framework for emission assessment of net-zero targets requires specific criteria and guidance for transparent and balanced multistakeholder process. It is an unparalleled opportunity to drive global climate change imperatives. The Science Based Targets initiative (SBTi) leads research transforming climate science into climate targets frameworks based on robust criteria and protocols for transparent validation (Science Based Targets Initiative, 2020). SBTi suggests guiding principles:

– the inclusion of emissions of the company and their suppliers and customers within the value chain
– emissions reductions consistent with limiting warming to 1.5°C under the Paris Agreement
– climate-related transition risk considerations for companies to be viable in a net-zero economy

Large businesses in New Zealand must have a good understanding of how climate change will impact them. In September, 2020, the government revealed New Zealand would be the first country in the world to require climate risk reporting. On a comply-or-explain basis, the Task Force on Climate-related Financial Disclosures (TCFD) framework and international best practice. The number of companies, investors, universities, and cities leading the Race to Zero is accelerating, with ambitious carbon mitigation targets or net-zero targets.

CONCLUSIONS

In a fast-moving business milieu with global competition and environmental imperatives, climate change risk management is an essential component of doing business, especially in volatile markets or pandemic-affected sectors. Dynamic risk management as a more informative tool to support organisations in decision making in their value-added product delivery; opportunities can be gleaned and a truer risk profile can be envisioned. Dynamic risk assessment is particularly applicable for climate change risk assessment for organisations, offering the ability to continuously innovate, progress and transform within the entire risk management process. Climate change risk assessment is no longer an optional 'feel-good' exercise. Global targets and government legislation are forcing organisations to be proactive and achieve significant mitigations towards emission reduction. Assessing climate change risk must lead to proactive action within organisations.

April Love Naviza is an Otago Polytechnic Auckland International Campus graduate student in Information Technology (IT) with more than ten years of experience in IT Service Management. Most recently, her collaborative research has been applied to algorithms for crime prediction in New Zealand and carbon emissions reduction strategies using technological solutions. **ORCID: 0000-0003- 4912-834X**

Tavish Sehgal is an Information Technology professional and Otago Polytechnic Auckland International Campus peer tutor. He has an interest in IT cyber security and accessibility and is currently conducting research on carbon emission prediction. Current research includes a Microsoft Excel prototype to predict carbon emissions and track individual company emissions. **ORCID: 0000-0001-6502-786X**

Marianne Cherrington is a Principal Lecturer at Otago Polytechnic Auckland International Campus with a focus on sustainability and computer science and analytics. A lecturer in disruptive innovation, her research into machine learning feature selection algorithms applies in many fields, producing interesting collaborations with local and international partners in many disciplines and sectors. **ORCID: 0000-0002-1240-2010**

Dr Farhad Mehdipour is an academic and Research and Development (R&D) expert with over 20 years' experience both in industry and academia. Farhad has initiated and led several interdisciplinary R&D projects and published 100+ peer-reviewed articles. Farhad is currently a Head of Department, and a Principal Lecturer at Otago Polytechnic Auckland International Campus, and an Adjunct Professor at St Bonaventure University, United States of America. He is a senior member of the Institute of Electrical and Electronics Engineers. **ORCID: 0000-0002-0357-6182**

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https://doi.org/10.34074/rere.00108

Article

REDUCING PROFILING BIAS IN CRIME RISK PREDICTION MODELS

Farhad Mehdipour, Wisanu Boonrat, April Love Naviza, Vimita Vidhya, & Marianne Cherrington

ABSTRACT

Crime risk prediction and predictive policing can lead to safer communities, by focusing on crime hotspots. Yet predictive tools should be reliable, and their outputs should be valid, especially across diverse cultures. Machine learning methods in policing systems are topical as they seem to be causing unintended consequences that exacerbate social injustice. Research into machine learning algorithm bias is prevalent, but bias, as it relates to predictive policing, is limited. In this paper, we summarise the findings of nascent scholarship on the topic of bias in predictive policing. The unique contribution of this paper is in the use of a typical police prediction modelling process to unpack how and why such bias can creep into algorithms that have high predictive accuracy. Our research finds that especially when resources are limited, trust in machine learning outputs is elevated; systemic bias of preceding assumptions may replicate. Recommendations include a call for human oversight in machine learning methods with sensitive applications such as automated crime prediction methods. Routine reviews of prediction outputs can ensure unwarranted community targeting is not magnified.

Keywords: predictive policing, ethnic identity, racial profiling, crime risk prediction, algorithm bias, demography

INTRODUCTION

Machine learning (ML) is now a prevalent predictive tool used in diverse applications, as a supportive mechanism in decision-making. Advantages include better accuracy in prediction, but also in realising trends, categorisations or clusters of information that can lead to new or hidden insights. Predictive policing (PP) refers to statistical, analytical or machine learning techniques meant to "identify likely targets for police intervention and prevent crime or solve past crime" (Perry, p. 154, 2013). In an era where resources are limited and organisations are called upon to do more with less, predictive policing applications have transformational merit, providing data-driven prepositioning of assets, better use of resources plus proactive tactical strategy and policy (Meijer, & Wessels, 2019). These predictive tools should support a more interconnected and safer community. Predictive policing and crime risk prediction can revolutionise policing (Egbert & Leese, 2021), but the media is rife with examples of excessive force alongside presumed ethnic or racial profiling. Are predictive tools at fault? Are they misdirecting efforts or escalating the use of force in confrontational situations? Critics and advocacy groups are raising concerns about racial justice; civil liberties concerns are mounting. The algorithms that drive predictive policing require more scrutiny and an evaluative focus on factors that contribute to biased outcomes (Brantingham, 2017); place-based prediction is under scrutiny.

In this paper, we will abridge topics relating to predictive policing and then crime factors, especially as they relate to data utilisation and algorithm design. Next, sources of bias will be investigated, using nascent peer-reviewed scholarly sources. An example of a process used to determine a crime risk prediction model will show that the goal of prediction accuracy can create outputs that have numerous sources of bias. The conclusions and recommendations will suggest methods for reducing bias in predictive ML models.

TOPICS IN PREDICTIVE POLICING

A thorough review of predictive policing literature to April 2017 was undertaken for the benefits and drawbacks of various methods (Meijer & Wessels, 2019). There was little empirical evidence of the benefits or drawbacks of methods; most studies were case driven or anecdotal. A search for peer-reviewed journals in the 41 months from 1 January 2017, was similarly conducted via Google Scholar. The number of articles multiplied almost 250% to 5950. Subsequently, only the first 15 Google Scholar pages (to April, 2021) revealed eight technical journal articles, briefed here, to compare and contrast, Meijer & Wessel findings. Table 1 has abridged results.

Table 1. Benefits and drawbacks of technical remedies to predictive policing bias.

	BENEFIT	DRAWBACK	REFERENCE	BIAS
1.	Empirical links to bias; methodology removes redundant loop.	Runaway feedback loops; call-backs to no incident locales.	(Ensign et al. 2018). Runaway feedback loops in predictive policing.	Bias crime rate (higher) in locales
2.	Random Forest, Neural Network, Kernel Support Vector Machine and Logistic Regression	Tested crime event prediction dynamic features efficacy.	(Rumi et al. 2018). Crime event prediction with dynamic features.	Adds human mobility data - social media.
3.	Random Forest and Logistic Regression Model were used.	Two separate models used to forecast two distinct crime types.	(Martegiani & Berrada, 2019). Crime Prediction Using Data Analytics: The City of Boston.	Predicts victim, place, offences and offenders
4.	Apriori algorithm was used to find patterns. Decision Tree classifier, Naïve Bayesian classifier	Spatio-temporal data in criminal hotspots using two different real-world data sets.	(Almanie, Mirza & Lor, 2015). Crime prediction based on crime types with spatial and temporal criminal hotspots.	Prediction for a particular location and specific time.
5.	K-Nearest Neighbour, Decision Tree, Multi-class Logistic Regression, Naïve Bayes, Random Forest.	Classification with log loss scoring and Naïve Bayes with parallel processing.	(Pradhan, 2018). Exploratory data analysis and crime prediction in San Francisco.	Attributes like seasons affect specific crimes.
6.	Random Forest and Decision Tree ML were used.	Ensemble methods: Extra Trees, Bagging and AdaBoost.	(Yuki et al. 2019). Predicting crime using time and location data.	Crime category predicted for time/ locale.
7.	Deep neural network (DNN) result: DNN model accurate in predicting crime occurrence than other predictions.	Feature-level data fusion method with an environmental context from multi-modal deep learning	(Kang & Kang, 2017). Crime occurrence prevention using crime prevention through environmental design (CPTED)	Broken Windows Theory: CPTED method boosts DNN design

A PROCESS TO DETERMINE A MODEL FOR PREDICTIVE POLICING

To build a predictive model, multiple analyses and experiments must be performed using an array of algorithms most suitable for the data type and context. The norm is to search for a predictive model with a high accuracy rate, but in application, predictive rate may not be the only measure to consider. It is prudent to build on previous research in the field. Using a typical police prediction model process, judgement points can be highlighted; they may introduce model bias (Bekmaganbet, 2021), (Miron et al. 2021).

1) Algorithms are plentiful; many are well known in terms of applicability, benefits or drawbacks. Algorithms are often based on statistical theory and variability and key assumptions are common to all such methods.
2) Data Transformation can be varied in nature. It is quite rare for data sets to be complete, clean, and usable. Most machine learning methods require data pre-preparation methods that vary widely and can be complex.
3) Crime Datasets are often used from open access websites. A New Zealand crime dataset is available from the New Zealand Police website with a good description and explanation (Victimisation time and place, 2018).
4) Descriptive Analysis is always required, to understand data, context, and basic statistical metrics, providing basic information about variables in a dataset and highlighting potential relationships between variables.
5) Baseline Feature and Target Variables must be determined and they will guide the analysis outputs. Domain expertise is helpful, so that the data analyst can support modelling with theoretical and applied performance.
6) Baseline Scores for variables are defined and ready to use for the model training so that scores can be compared and relate to the target label; this is important as it can affect model accuracy.
7) Feature Selection cuts dataset dimension and model complexity for faster training and meagre resource use while Invalid Data Detection is important as some records may be removed for various, valid reasons.
8) Relevant Factors must be chosen, based on any number of metrics, so the relevance to task aim is identified. Coding of variables may be carried out for software requirements; algorithms and equations may be formulated.
9) Predictive Modelling with different algorithms should now be instigated. Model prediction accuracy is typically the aim and cross-validation is undertaken on simulated data. Real-life data can be tested or compared.

At every stage, there are subjective decisions to be made, so partiality, preference or bias may be introduced. It is not enough to argue that the data analyst is data-focused and impartial. It is beneficial that data analysts have domain knowledge, but increasingly with automated systems, they may be the only arbiter of 'excellence' in terms of the context in which the algorithms are intended to be used (Cherrington et al. 2019b). Who knows how machine learning algorithms may be used subsequently, in the workplace?

Predictive policing can lead to life and death consequences (The Guardian, 2015). Seek and you will find. When police are sent to the same locations frequently, suspects will be apprehended with predictive policing systems (The Police Foundation, 2020). If predictive policing has reinforced bias the results are not just bothersome or unfortunate, they may lead to prison sentences, or even a death penalty (Richardson et al. 2019). Although determining bias can be hard to verify (Brantingham, 2017), racial bias has been shown to exist in the U.S.A. for capital cases and across multiple decision-making points which potentially shape the life course of defendants (Petersen, 2017).

OPPORTUNITIES FOR THE INTRODUCTION OF BIAS

A broad definition of bias is an inclination or prejudice for or against, especially in a way considered to be unfair Smith & Noble, 2014); statistical bias can be quantified if the expected value differs from the true estimate of the parameter. The type of data used for ML is the first potential source of partiality; the value of event-based predictive policing, which relies on actual data on crimes that have been committed, should not be ignored (Kirkpatrick, 2017). In terms of the step-wise process above, some specific types of bias were identified.

1) Algorithms are generally evaluated for predictive accuracy, only valid for the test data, 'model shrinkage' is inevitable when the algorithm is applied to new, unfamiliar data (Oswald & Babuta, 2019).
2) Data Transformation is usually limited to numeric data, which is a limitation. Transformation can involve re-labelling or perturbation, which may also introduce bias if one-to-one methods are not used (Bacelar, 2021).
3) Crime Datasets are historical. There is concern that prediction from 'stock data' can reinforce existing bias in policing systems and miss opportunities for new insights into future-based crimes (Sandhu & Fussey, 2020).
4) Descriptive Analysis can bias results if variables are compacted in dimension or if categorisations are utilised for expediency. Visualisations can be biased as they are often only in two or three dimensions (Huff, 1993).
5) Target Variables used will affect results. It is vital that data limitations are known and that the 'question' the algorithm is intending to solve is carefully understood, expressly when used in the real world (Van Brakel, 2016).
6) Baseline Scores for variables are defined and ready to use for the model training so that scores can be compared and relate to the target label; this is important as it can affect model accuracy (Wielenga, 2007).
7) Feature Selection necessarily biases results to improve performance and save resources (Cherrington, 2019c). The issue is that different algorithms will select a different set of features; domain expertise is required.
8) Relevant Factors and software limitations may necessitate the choice of sub-optimal data; insights from scholars who have faced risk assessment throughout the criminal justice system are helpful (Ferguson, 2016).
9) Predictive Models must be tested in practice (Cherrington, 2019c). Independent and methodologically sound trial evaluation is vital for predictive policing models, with event-based evaluation (Oswald & Babuta, 2019).

Predictive policing leads to policing, sentencing and criminal justice (Završnik, 2019). There has been visibility around policing and inequity that causes disparate impacts that exacerbate and prolong social injustice (Selbst, 2017). In critical professions like policing, it is important to understand how predictive models make outputs or decisions so that they are not 'unfair' (Martin, 2019). Are predictive policing models biased? Results show, not always (Brantingham et al. 2018).

Deep learning models with 'black box' outputs have high performance but can be difficult to assess in real-world situations and interpreting complicated models leads to over-reliance on ML systems (Cherrington et al. 2020a, b, c). Efficient procedures with high predictive performance can still escalate unintended behaviours in volatile policing circumstances; surveillance systems are creating reams of evidence (Patil & Bernstein, 2021).

Predictive policing technologies have pros and cons (Martin, 2019); the intention is to target crime hotspots and recidivist offenders (Selbst, 2017). That does not mean that systems can be used 'as is' and unchecked. More evaluation is needed to ensure data is managed as a beneficial asset (Cherrington et al. 2021a, b).

CONCLUSIONS

For predictive policing models, it is important to clarify the purpose of the model and to understand how this is to be used in the police system; this can be very regional in context. Models, therefore, might not transfer well or may have to be refined once again when the context changes. Time may be a contextual factor.

It is important to note what does work and does not work well. It may be that different algorithms can be employed in different contexts. Cross-validation, confusion matrices, and visualisation can test model results.

There can be improved accuracy with deep learning models; the 'black-box' nature of these models may make them unsuitable for some predictive policing objectives. Visualisation techniques can be used in conjunction with models, however, visualisation can both illuminate and obscure information and can be a source of 'bias'.

In this paper predictive policing models were summarised for benefit, drawbacks, and bias; technical journal sources were favoured in the analysis. Several scholarly sources were reviewed to extend a previous scoping review (Meijer & Wessel, 2019) and similar issues were found. Nascent research algorithms were summarised for method and contribution. A process for crime risk detection was provided.

The research finds that police predictive models are meant to support the police by directing them to where they are likely to be needed – wise use of resources. As ML systems become more automated, this elevates trust in the system outputs, often over human decision-making. Given that potential consequences can be life-threatening, it is important that bias in models is understood, and that human checks and balances are always in place. At the very least, routine reviews and audits of prediction policing should be mandatory.

There is considerable scope for future work in predictive policing, especially empirical research and in improvements in ML algorithm design. This is a vital and emotive topic and seasoned data analysts must support scholarship in this field.

Dr Farhad Mehdipour is an academic and Research & Development (R & D) expert with over 20 years' experience both in industry and academia. Farhad has initiated and led several interdisciplinary R & D projects and published 100+ peer-reviewed articles. Farhad is currently a Head of Department, and a Principal Lecturer at Otago Polytechnic Auckland International Campus, and an Adjunct Professor at St Bonaventure University, United States of America (USA). He is a senior member of IEEE. **ORCID: 0000-0002-0357-6182**

Wisanu Boonrat is an Information Technology graduate student from Otago Polytechnic Auckland International Campus. Experienced in web, android, and machine learning development, he has created a wide range of tools for a variety of clients. He is now working in the industry as a Software Engineer at Medi-Map.

April Love Naviza is an Otago Polytechnic Auckland International Campus graduate student in Information Technology with more than ten years of experience in Information Technology (IT) Service Management and currently working in a global Information and Computer Technologies (ICT) company. Most recently, her collaborative research has been applied to algorithms for crime prediction in New Zealand and carbon emissions reduction strategies using technological solutions. **ORCID: 0000-0003- 4912-834X**

Vimitaben Vaidya is a graduate student in Information Technology at Otago Polytechnic Auckland International Campus, with two years of software development experience. Her expertise in programming and collaborative research has been applied to a machine learning-based crime prediction model for New Zealand. Vimitaben is currently working in the IT industry as a software developer.

Marianne Cherrington is a Principal Lecturer at Otago Polytechnic Auckland International Campus with a focus on sustainability and computer science and analytics. A lecturer in disruptive innovation, her research into machine learning feature selection algorithms applies in many fields, producing interesting collaborations with local and international partners in many disciplines and sectors. **ORCID: 0000-0002-1240-2010**

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https://doi.org/10.34074/rere.00109

Article

FOOD SECURITY ISSUES: ROOT CAUSES AND DIRECTIONS FOR THE FUTURE

Maimiti Manate and Marianne Cherrington

ABSTRACT

The second United Nations Sustainable Development Goal is Zero Hunger. The issue stems from multiple root-causes that must be recognised and managed, to reduce the consequences of acute hunger and undernourishment. Two closely related topics are food security and food poverty. While the characterisation of these two problems is different, their causes are closely related. Aotearoa, New Zealand is confronting these problems as well, even though the country is exporting a significant amount of food from agricultural production. This paper is a realist review of food security issues in Aotearoa, New Zealand; the method aligns with selected secondary reviews devised for complex policy interventions. The focus is on several interdependent topics such as the living wage, eating habits, and the food system. While income is the most obvious aspect of a living wage, it is important to be aware of many encompassing factors such as eating habits. The food system is directly related to these issues and needs to evolve simultaneously and considerably. Fortunately, Aotearoa, New Zealand is rich in resources and culture; Māori culture influences our food industry. This paper will particularly discuss hāngī (traditional, earth-cooked food) and its connection to agriculture in Aotearoa, New Zealand. The paper outlines an alternative food system as one possible response that can be developed and adopted in the future.

Keywords: food security, living wage, eating habits, food system, hāngī, free lunches

INTRODUCTION

Food security issues have existed for millennia. Aotearora, New Zealand is an agricultural powerhouse; horticultural, meat, and dairy sectors contribute significantly to the tradeable economy, exploiting 45 percent of our countryside to do so (Child Poverty Action Group –New Zealand (N.Z.), 2019). In Aotearoa, New Zealand, undernourishment, and acute hunger should be a problem with feasible solutions (Manate & Cherrington, 2022). However, statistics show that Aotearoa, New Zealand is struggling with food insecurity and food poverty increasing almost 3 percent in the decade to 2019 (Auckland City Mission, 2019). Despite increasing the minimum wage in recent years, Aotearoa, New Zealand's banking industry was the only industry accredited as living wage employers in 2020; the industry employs more than 25,000 persons (One News, 2020). The message here is: if you work at a bank, even at the lowest level, you will be paid fairly.

Despite calls for the living wage in Aotearoa, New Zealand (Skilling & Tregidga, 2019), 10 percent of the populace is deemed undernourished (Auckland City Mission, 2019). Frameworks for improving food insecurity and food poverty are used by governments to mitigate harmful effects such as malnourishment and hunger, but policies must integrate into social and cultural milieus for such initiatives to achieve broad-based, long-term positive change (Spray, 2020).

FOOD INSECURITY AND FOOD POVERTY

Although the difference between the two issues of food insecurity and food poverty may not be obvious; their root causes are separate. Food insecurity is a "limited or uncertain availability of nutritionally adequate and safe foods or limited or uncertain ability to acquire acceptable foods in socially acceptable ways" (United States Department of Agriculture , 2000, para 4). Food security is achieved when "all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food which meets their dietary needs and food preferences for an active and healthy life" (Food and Agriculture Organsiation of the United Nations, 2003, para. 22). It is important to remark that many factors contribute to hunger or malnutrition, such as funds, resources, time, and skills to prepare healthy meals, as well as safe storage or preservation of food (Child Poverty Action Group - N.Z., 2019). Food poverty can have similar contributing factors; this can be important because contemporary definitions are more inclusive of various family resources and needs (Wight et al., 2014). Food poverty is often thought of as a lack of food-related resources, but metrics that support policy decisions can shift based on definitional application or factors included (Manate & Cherrington, 2022). Food poverty includes circumstances where there is a lack of resources relating to food and nutritional access, mainly driven by poverty, location, and inequity.

Millions worldwide suffer from hunger, food insecurity, and malnutrition since they are unable to afford the cost of healthy diets. The cost of healthy diets is associated with a rise in food insecurity and the visible signs of malnutrition, such as stunted growth, wasting, obesity, and overweight (FAO, International Fund for Agricultural Development , United Nations International Children's Emergency Fund, World Food Programme, and World Health Organisation, 2020).

Achieving Zero Hunger requires a paradigm shift. The three disciplines of ecology/agricultural sciences, nutrition/public health, and political economy/policy science can transform our current industrial agriculture style to a broad agroecological systems approach (Frison, 2016). The Zero Hunger configuration may not ideally assist the needed convergence (Dube et al., 2021). A realist view of food insecurity issues may create a pathway, by looking at social and cultural perspectives that ameliorate the most serious consequences of food poverty (Manate & Cherrington, 2022). Research supports place-based, adaptive, participatory solutions within a holistic ecosystem to improve the quality of local diets. Frameworks now exist for activation; a desire to develop a greater food system could inform the development of effective policies (Blesh et al., 2019).

THE CURRENT SITUATION IN AOTEAROA, NEW ZEALAND

A person in a state of food insecurity can refer an individual, whether they are earning money or not. It is highly probable that everyone in the country or even globally has been in that circumstance at some point. Since money is not the only needed resource linked to food insecurity, time to cook healthy food or access to healthy ingredients are issues that need to be more seriously considered. In addition, a dearth of nutritional knowledge and conflicting health messages are a growing concern. The idea that everyone can be affected by these food issues is alarming and must awaken a urgent community response (Dunn et al, 2020).

In Aotearoa, New Zealand one in five children is experiencing food poverty (Child Poverty Action Group – N.Z., 2019). Malnutrition during the growing phase of children can lead to abysmal health outcomes in the future such as obesity, underweight, or nutrient absorption issues is a hidden hunger that could affect personal development. Studies have shown that vitamins and minerals are essential to support the development of the brain and regulate hyperactivity, irritability, and attention deficit (Rucklidge et al. 2009). 'Spend money now to save money later' is an idea that deserves serious attention as our children are the future of the country. To ensure children develop in a healthy environment where required nutrients are provided for later health, it is fair to say this is a societal responsibility (Child Poverty Action Group - N.Z., 2019). Women too are more affected by food insecurity than men (Auckland City Mission, 2019). This can be explained by the fact that women are often primary caregivers for children if parents separate, their living costs are proportionally higher than other family group categories, and women are systematically underpaid United Nations Women (2020).

Knowing that Aotearoa, New Zealand produces enough food to feed twice its population, yet an alarming 14 percent of the community is experiencing food security issues (Huang et al., 2020) we must ask the question: how is that possible? Aotearoa, New Zealand food policies must use a long-term vision; currently, policies are more focused on preventing food poisoning than food supply (Child Poverty Action Group - N.Z., 2019). In 2019, the country experienced food price inflation for vegetables and nuts, up from four to nine percent (Child Poverty Action Group - N.Z., 2019), not to mention the contrast between the incredibly high housing costs and the low incomes (Zealand, 2020).

Actions are being taken to counter food poverty; food banks exist so that people in need can get free food. However, it is psychologically difficult to turn to this option as these individuals often feel ashamed to do so (Worsley & Scott, 2000). In addition, food banks are considered as a short-term solution in the fight against food poverty. Some organisations are developing partnered community strategies aiming to reduce household food insecurity. Nevertheless, this issue is too complex for them to be fully efficient; other factors must be carefully studied and managed by businesses, the Government, and even the whole community. The wicked problem is highlighted by the 17 United Nations Sustainable Development Goals that are highly interconnected and require global action, in partnership with the goals, but that stresses the need for local emphasis, refinement and design thinking (Cherrington et al, 2021).

THE LIVING WAGE IN AOTEAROA, NEW ZEALAND

Food insecurity and food poverty are closely related to income (Nino & Cherrington, 2021). In terms of policy, the Living Wage movement is almost a decade old and encompasses diverse organisations, with aims to build people's power and transform workers' lives (McIntyre, 2019). In other words, they seek to reduce the gap between the minimum wage and the real costs individuals are facing in Aotearoa, New Zealand. Real costs comprise more than just the minimum a person needs to survive. The living wage is meant to be enough to allow the individual to get adequate housing, sufficient healthy food but also the possibility to participate in their community. Knowing that mental health is just as important as physical, activities such as socialising in parks, cinemas, or during events is essential. In that light, increasing wages will allow community members to work in more meaningful ways, with more time to take care of their wellbeing. Therefore, the living wage movement releases several reports each year presenting updated living wage rates, which are calculated using multiple factors like health and energy costs or government plans like the Families Package (Boston & Chapple, 2014).

Several arguments support calls for a living wage in Aotearoa, New Zealand (Waldegrave, 2021):

- Government policy should support social order and focus on collective outcomes.
- Inherent dignity and wellbeing of workers and their families must underpin action.
- Organisations have legal obligations and duties regarding health, safety, well-being.

Yet many arguments are made to keep the status quo (Waldegrave, 2021):

- Market signals already have a sufficient and valid role in informing wage decisions.
- Aotearoa, New Zealand lags in gross domestic profit (GDP), competitiveness, and long-term organisational performance.
- Organisations cannot afford a living wage notably post Covid-19 and in low-wage sectors.

Fortunately, the movement has been gradually growing over the years; promoting progressive business practices is a marketing technique and more companies are accredited to be living wage employers (McIntyre, 2019). Over 200 companies are now accredited as living wage employers to indicate that the totality of their workforce is being paid the living wage rate (Cherrington et al, 2021).

From 1 April 2021, the minimum wage in Aotearoa, New Zealand was raised to $20 per hour. Although

Aotearoa, New Zealand achieved significant increases to the minimum wage in recent years, the cost of living has risen as well, and the living wage rate is now estimated at $22.75 (Living Wage, 2021). Naturally, increasing the minimum wage leads to an increase in the cost of essential goods. However, the gap between the minimum wage and the living wage has never been so small with a $3 difference; in 2018, this gap was over $4 (Moran, 2020). This highlights a perceived endless rising cycle of wages versus cost of living; this depends on how well other co-related factors are managed (Employment New Zealand (2021). It is fair to say that the Government is contributing to the improvements, but more businesses must join the movement to make the difference insignificant. Businesses must pay employees more in tight labour markets, but the living wage movement deserves to be more widely known and recognised as a key driver of equity and fairness for workers in our society.

THE FOOD SYSTEM

Current food systems can be complex, but the process encompasses food production, processing, distribution, and consumption and includes food waste management; home gardens are healthy and simplify the cycle but are an out-of-reach luxury in many urban settings (Figure 1). Food products not consumed often end up in organic waste rather than being re-distributed to those in dire need; this does not add to intelligence towards long-term health and wellbeing aspirations in New Zealand (Sehgal & Cherrington, 2021). Key features that impact complex systems can be targeted to manage these assets and complex food systems multi-faceted data processes (Cherrington et al, 2019, 2019b, 2019c, 2019c).

Figure 1. The Food System Process

Those responsible for population health are increasingly concerned about ultra-processed and nutritionally meagre processed foods produced via our commercial food systems. Expediency and profitability are shifting the burdens of future disease and health system costs to future generations, creating further inequality (White et al., 2020). Producers in the food system need incentives to evolve and invest. For example, businesses that had previously invested in sustainable processes, rode COVID-19 pandemic with a new appreciation for data, information and networks (Cherrington et al, 2021a, 2021b, 2021c). Conceptual frameworks that integrate sustainable risk management and transfer strategies, can proactively change the status quo, and generate cultural shifts for healthier outcomes (Mushtaq et al., 2020). Government policy must be supportive of businesses in the evolution so that they remain competitive and profitable (Henderson, 2020). Leading businesses would then benefit from collaboration with the food industry regarding health priorities. Another issue increasingly stated, is fairness towards workers and producers (Kaiser et al, 2021), as well as consumers wanting to be more informed about their food choices. To these ends, packaging legislation is low-hanging fruit, yielding multi-faceted and positive results (Drew et al., 2020). These imperatives can be integrated into sustainable packaging legislation (Plastic Packaging Masterclass 2020, 2020).

FOOD CONSUMPTION AND EATING HABITS

Nowadays, processed food is so low-priced, transportable, and so easily accessible that it has become part of a regular diet. As a result, our health is greatly affected and a dramatic increase in diseases such as obesity and diabetes has been observed over the years. Despite the impact on our physical condition, the cumulative effect of eating habits has a significant role in food security (Jones, 2021). Thus, it is crucial to learn how to compose a healthy and enjoyable diet to reduce many negative impacts on health and food security.

Healthy menus for a healthy body

The current generation is known to consume too much processed food compared to what an overall healthy diet would necessitate. Even though it is common knowledge that processed foods are often high in fat, salt, and sugar and are not as nutritious as natural foods, it can be difficult to change mindsets and eating habits. However, a growing interest in healthy food using various cooking styles is trending as well. Some people even associate their diet with sustainability, claiming that meals should be mainly plant-based but widely diverse, composed of locally produced items to espouse sustainable practices and lower emissions (Jones, 2021).

Aotearoa, New Zealand is a multicultural country where the indigenous population is Māori. Māori culture is extremely wealthy in knowledge and customs, includinghaving their own traditional medicine called rongoā. Māori also possess a very interesting way of cooking their food called hāngī; food is cooked underground using extremely hot stones to generate heat, creating an oven. Traditionally wrapped in leaves, the food from hāngī is renowned to be exceptionally tasty and healthy (Fiso, 2020). It is ideal for large gatherings and celebrations. Nevertheless, it can be difficult to build a successful business around this traditional method of food preparation and cooking as it requires a significant amount of time and well-trained individuals to prepare a hāngī, who bear the enormous workload. Despite these challenges, with modification and modernisation of methods, it is possible and viable to develop a food business using this traditional cooking practice. Hāngī Master is a business that takes hāngī to the masses; the owner, Rewi Spraggon has built a food business that is profitable, sustainable, and healthy (Lazy Susan, 2021). This case study is interesting, as it relates to Spraggon's journey and the traditional philosophies behind the endeavour; Rewi Spraggon aspires to provide healthy menus to his customers and share Mātauranga Māori (knowledge of Māori) to his employees. His initial objective was to provide hāngī to schools, so at the outset, he created healthy menus that would be appealing to students. While these meals do not contain many greens currently, the intention is to include more vegetable varieties in the future, with the view to improve the eating habits of young people. His next target market is to supply hospitals and supermarkets. As hāngī becomes more popular throughout Aotearoa, New Zealand, it will surely contribute to mitigating the impacts of food security issues. Changing the quotidian diet is an essential part of solving these problems. When healthy and tasty food is more accessible and affordable, surely, it will positively impact our eating habits.

Free meals at school

The Universal Declaration of Human Rights states that every child has the right to adequate nutrition (Office of the High Commission for Human Rights, 2021), yet in Aotearoa, New Zealand, 100,000 children go to school every day without breakfast. The Framework for Food in Schools Programme confirms these food inadequacies and that the "right of every child to a standard of living adequate for the child's physical, mental, spiritual, moral and social development" (Children's Commissioner, p. 11. 2013). The Children's Commissioner (2013) also states that children must be fed sufficiently to attain a range of nutritional, educational, and social intentions and fed irrespective of parental income or status and thatbreakfast should be made available to schools with decile 1 and 2 primary and intermediate children.

It is well known that the most influential time for a human being to acquire knowledge is during childhood. Several programs are Government funded in an attempt to reduce the percentage of hungry children; one of them aim to provide free lunches at school to children between primary and intermediate age. Since 2020, Aotearoa, New Zealand began to roll out a programme that aims to provide free lunches at school (New Zealand: Free healthy lunches in schools, 2020). Regardless of the clear impact, this programme will have on food security if successful, it could also have a significant influence on the future generation.

Projects such as these are promising and begin to address the United Nations Sustainable Development Goal of Zero Hunger. Yet many of these projects are still in the pilot phase, requiring more data and analysis for improvement (Swinburn, 2021).

A comparison between the French and American free lunch system at school is thought-provoking because these programmes began decades ago (Cummings, 2019). Their evolution through the challenges they encountered over the years could provide leads and ideas to be implemented in the Aotearoa, New Zealand programme.

France and the United States developed their own meals strategy several years ago. Although the aims initially differed, they are now similar. Despite the difference in the selected menus between the two countries, their current programmes follow the same trends which are guided by sustainability and education. In fact, in addition to providing free meals to children at school, they seek to conceive and produce healthy menus daily with the perspective of educating the palate of children.

The will to use organic and local products has been slowly growing over the years and schools are applying strategies with the aim of cultivating children's minds about nutrition and the worth of exercising (Cummings, 2019). By using seasonal and local produce, preservatives are reduced, and emissions from distribution are lowered; local producers often improve their income opportunities. These free lunch programmes are also designed to develop and diversify children's taste and their ability to appreciate multiple flavours. Some schools have gardens to connect children with healthy food sources. While these strategies still need refinement, their evolution over the years shows that better outcomes are to be expected in the future.

In Aotearoa, New Zealand breakfast programmes can still be considered pilots. Nevertheless, trends such as these are influencing and inspiring schools to enhance student knowledge about healthy and nutritious food. Along with making sure that children have access to adequate meals daily, some schools even have gardens where they can teach the students where their food comes from and how to grow food themselves (New Zealand: Free healthy lunches in schools, 2020). This whole educational process is a long-term one – but so is a healthy lifestyle! The collateral benefits of nutritional eating and education are invaluable in the aim of building the next generation's skills and interests in sustainability, health, and nutrition.

Unfortunately, food insecurity and food poverty are encountered in many countries. The high price of organic products and difficulty in accessing them are some of the issues; of course, this is a consequence of commercialised food systems and consumer alienation from growers and the source of their food. While capitalism is a driving factor aggravating these issues, populations can change and evolve current food systems to reverse negativities and obtain healthy products at a fair price. Consumers play a part and must demand better.

Māori assistance and autonomy

Meals in schools can be useful for the community, yet it is important to note that common eating habits may not be influenced outside of the programme to be suitable for keepingbodies in good health as well as for environmental sustainability (Jones, 2021). Community education and promotion within communities have the aim of evolving mindsets and changing food habits. Can this also sway food producers? Aotearoa, New Zealand owns a unique asset: Māori culture. Iwi (tribes) such as Te Rūnanga O Ngāi Tahu are extremely active to support their people and their unique environment. Ancestral knowledge about hāngī and kaitiakitanga (guardianship) are taken into account to developevolve eating habits as well as the food industry, via Ngāi Tahu Seafood and Ngāi Tahu Farming specifically. This example indicates a feasible link to improve the food system in a transformational way.

Similarly, communal gardens can create a new way to purchase or distribute vegetables and fruits. A central Auckland iwi has created Pourewa, as a means of treasuring endemic seeds, educating the community and feeding its people (Pourewa – Ngāti Whātua Ōrākei, 2021). Similar successful initiatives are popping up in the regions; they merit review and promotion to the broader public to cultivate inspiration and consciousness. Food security issues are therefore ruled by multiple factors, each one of them needs to be carefully investigated and managed to considerably mitigate any negative consequences.

Fortunately, in Aotearoa, New Zealand diverse strategies are being developed by iwi. Autonomous solutions are often interwoven in outmoded systems; the inter-relatedness of asset management must be explored to improve decision-making (Cherrington et al, 2020b, 2020c, 202d). Strategies such as those by Te Rūnanga O Ngāi Tahu to address their issues, which align with mitigating multiple issues in the country.

"What is good for Ngāi Tahu is good for Aotearoa" (Te Rūnanga o Ngāi Tahu, p.3, 2018b)

Proactive and holistic sustainability and climate change mitigation is a foundational aim and it often comes back to traditional practices within a contemporary milieu (Te Rūnanga O Ngāi Tahu, 2018). By looking at the big picture, multiple actions allocated to a variety of different areas such as education, preservation, or innovation can have a multiplicative effect. Many sustainability strategies closely related to food security according to Lisa Tumahai, a member of Te Rūnanga O Ngāi Tahu (Te Karere Television New Zealand, 2019).

Te Rūnanga O Ngāi Tahu , which is one of the largest iwi in the country, also developed the label 'Ahikā Kai' to empower their iwi (Barr et al., 2018). While "kai" can be translated as "food", the Ahikā Kai designation was created with the view of giving more credibility to Māori producers; it can also notify consumers about the use of fair and sustainable practices during the production process and health benefits via labelled products.

Five key principles or pou (pillars) are followed: kaitiakitanga (stewardship), hauora (health), kaikōkiritanga (precautionary care), whanaungatanga (relationship), and tikanga (customary practices) (Rewi, 2012;Barr et al., 2018). An accreditation system was set up and a website was developed to facilitate access to these products. Although the website appears not to be operational anymore, the Ahikā Kai label can be deemed as a pilot to be reactivated and reworked. Empowering Māori producers is a means of providing healthy food as part of wider initiatives that can impact food security. Knowing that eating habits are one of the key drivers to mitigate food insecurity, pushing the community to consume healthy and locally produced food by making them more accessible, appears to be key in an apt success strategy.

Community support agriculture

Whilst the availability of healthy food is important to improving the food system, mindsets and buying habits must evolve simultaneously to improve the food system. Aotearoa, New Zealand is well known as a leader in the agriculture industry. Even though studies about pesticides are in constant evolution, it appears that Aotearoa, New Zealand uses three thousand tonnes of pesticides; half are suspected to be carcinogenic even if recent research is still unable to prove it (Martine't Mannetje, 2019). From this perspective, communities must decide whether to trust their food producers. With a view to improving the food system, confidence in products from agriculture is crucial. Besides the economic aspect of the consumption habits, consumers are now more mindful of the practices used to produce the food they consume (Savarese et al., 2020).

While community gardens can be a great alternative for individuals who do not have a personal green space to cultivate their vegetables and fruits, Community Supported Agriculture (CSA)is an innovative substitute for the population to get easier access to healthy and safe food. The idea here is to re-connect consumers and producers by building up a relationship based on trust and equity. In this model, customers pay a monthly fee to the producers to have freshly harvested products delivered regularly. Consumers also get the chance to visit farmers and participate in harvests. Consequently, customers tend to feel more comfortable sharing ideas and opinions about practices that could be adopted on farms (Savarese et al., 2020). With trust restored, it is more likely that consumers will rely more on a new, more sustainable model to purchase their weekly groceries. Knowing that the agriculture industry is greatly pressured by price wars, CSA could be a tremendous change for producers that are often pushed to give up the right practices due to excessive production costs. A change of buying habits appears to be a logical next step in the restorative improvement of eating habits. Changing mindsets and attitudes to purchasing food is a beneficial way to mitigate the realities, impacts, and negative externalities of food security issues.

CONCLUSIONS

Food security is a vast and serious problem that needs to be managed urgently. Multiple root causes outlined in this paper validate how complex this issue is. The living wage is one key concern that must be adopted by more employers; having enough money helps make positive life choices and changes. Evolving eating habits could be supported by education and Government policy. Since the current food system is based more on price rather than the quality of the products, adopting a healthier diet needs collective action. It requires a long-term view; education of the younger generation is the key to positively changing eating habits. Providing knowledge and skills to children and their parents will surely contribute to the call for positive change in the food system. A partnership between consumers and producers should become an essential part of food future systems.

Solving food security issues requires a long-term vision. A complex and articulated strategy where joint efforts from the community are needed. Stakeholders need to work together to overcome or even minimise the impact of food insecurity, but incentives must be well-defined. More research is needed regarding a partnership between producers and consumers to develop a strong plan to improve the food system and simultaneously, the food security situation in Aotearoa, New Zealand.

Maimiti Manate is a Bachelor of Applied Management student at Otago Polytechnic Auckland International Campus. Experienced in her family business in Bora Bora, she is researching sustainability and how innovations help organisations mitigate their emissions. She enjoys research collaborations, as mindsets need to evolve for children to have a better future. **ORCID: 0000-0002-3695-7037**

Marianne Cherrington is a Principal Lecturer in Applied Management focusing on disruptive innovation and sustainability. Current research into machine learning feature selection algorithms applies in many fields, producing interesting collaborations with international and New Zealand partners in many disciplines and industry sectors. **ORCID: 0000-0002-1240-2010**

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Article

REGAINING REPUTATION: AUCKLAND LUXURY HOTELS A STAKEHOLDERS' PERSPECTIVES

Ankursinh Chandrasinh Chauhan and Indrapriya Kularatne

ABSTRACT

This study aims to identify the importance of the reputation of Auckland luxury hotels in terms of their stakeholders. In this context, the meaning of reputation for Auckland hotels is examined and identified. The analysis included management decisions taken in relation to cost control and the possible effects on the reputation of luxury hotels from stakeholders' perspectives. Possible areas and solutions to regain the prestige of luxury hotels are discussed in situations where managerial decisions caused damage to the luxury hotel's reputation. Practical evidence from industry-wide competitors is provided as justification for the different solutions. Also included is a critical evaluation of possible recommendations for the management of Auckland luxury hotels to regain their reputation from the perspective of their stakeholders.

Keywords: reputation, luxury hotels, stakeholders, corporate social responsibility, COVID-19.

INTRODUCTION

Modern hotels, particularly luxury hotels, do not merely provide accommodation, food, and beverage services; they offer a wide variety of services, many of which are lavish and high cost inclusive. The Asian luxury hotel industry forecasts a 37% to 42% return on investment due to cheap labour and supply costs (Lee & Kim, 2020). At the same time, liberal government policies encouraged the industry to invest more for better revenue generation (Naumik-Gladkaya & Devon, 2018). However, the New Zealand and Australian hotel industry had predicted 24% to 28% revenue generation being due to high hourly employee wages and strict government regulations (Naumik-Gladkaya & Devon, 2018). Additionally, cities such as Auckland and Sydney were categorised under the top 15 most expensive cities to live in the world, making profit generation more difficult. (Harkison et al., 2018). All the above reasons, along with pressure to increase profit margins, were adopted by the management of luxury hotels in Auckland to make cost control decisions which sometimes played a vital role in the luxury hotel losing its reputation. Al-hajla et al. (2017, p. 40) defined a luxury hotel as a hotel establishment "rated five stars on a rating scheme which provides an excellent location, has customised and expensive serviced rooms, a uniquely decorated interior with distinctive furniture, lighting, and facilities, and presents high-quality foods and drinks". The same definition has been used in this study to differentiate between a luxury hotel from other hotels located in Auckland. A widespread perspective that customers have of luxury hotels in terms of the above characteristics, features, and services were considered as reputation.

Critical evaluation of the meaning of reputation to Auckland luxury hotels in the context of stakeholders was undertaken. The identification of managerial issues related to cost control in these luxury hotels and its effect on the stakeholders in terms of loss of reputation was analysed. Possible implementation of solutions by management to regain their reputation are proposed concerning industry-wide competitors, plus recommendations are proposed to support luxury hotels to rebuild and regain their reputation in the perspective of their stakeholders.

METHODOLOGY

No primary data was collected for this study, it is a literature-based investigation and all information and data reviewed are from published sources. This type of study is cost-effective because there was no cost was involved in primary data collection. The quality of literature-based research is dependent on the collection of relevant contemporary information. Most sources used were not only current but were published in the last five years.

CONTEXT OF THE PROBLEM

This section critically evaluates the meaning of reputation for Auckland luxury hotels and analyses their stakeholders to understand why reputation is so important. Additionally, how the cost-related decisions made by management have damaged the reputation of these hotels is also examined in the context of their stakeholders.

Reputation for Auckland Luxury Hotels

Reputation is a crucial component for any luxury hotel and is a primary indicator of its success (Alsop, 2014). It acts as a tool to eliminate consumer dissatisfaction and is an indicator of marketing productivity, customer base, and visitors' loyalty (Qoura & Khalifa, 2016). Same authors have stated that a positive reputation increases stakeholders' trust of the hotel as well as confidence in management. Additionally, reputation is part of hotel goodwill, along with tangible assets such as social assets (positive relationships with customers, vendors, local communities, and regulatory bodies) and environmental assets (surrounding environment, clean water and air, energy, and other resources) (Van Riel & Fombrun, 2007). Reputation for Auckland luxury hotels is important because of its alluring power to attract customers, and thus, improve business for the industry.

A strong reputation is a critical prerequisite for promoting a luxury hotel in the competitive business environment, and an important element in the valuation of a hotel on capital markets (Van Riel & Fombrun, 2007). Williamson (2017) has reported that the Hongkong and Shanghai Banking Corporation Limited (HSBC) has announced their investment of NZ$1.3 billion by 2022 in various luxury hotels in Auckland. This is a good example of how a positive reputation is important in this industry. Alsop (2014) suggested that credibility is also essential and is the secret to having satisfied hotel stakeholders.

Stakeholder Analysis for Auckland Luxury Hotels

Stakeholders are a group who have an interest in an organisation and may either influence the organisation or be impacted by its decisions (Ackermann & Eden, 2011). Any entity with an interest in the performance of an organisation, such as staff, owners, consumers, and regulators can be considered stakeholders. As a component of this investigation, it is important to identify the stakeholders of luxury hotels in Auckland. Xiong & Wu (2009) reported that stakeholders gain benefits or take risks and are also involved in the decision-making process of an organisation. On the other hand, they can be affected by the decisions made by the hotel management. As an example, the announcement from the Auckland Hospitality Union to give Christmas gifts to all parties involved in hotel operations energised the stakeholders (Xiong & Wu, 2009). The presence of representatives from diverse groups of people, namely stakeholders, in various decision-making meetings for Auckland hotels demonstrated the importance of these people.

Farmaki (2019) stated that stakeholders portray a crucial aspect in any industry, however, it is difficult to put them into one basket. As part of this study, all key stakeholders for the Auckland luxury hotels were identified (see Figure 1). Although there are many stakeholders involved with the hotel industry, the most important parties directly engaging with the Auckland luxury hotels are identified and considered in this study. These parties were classified into two categories namely internal and external stakeholders. The main internal stakeholders were employees, managers, and owners, while external stakeholders were suppliers, shareholders, customers, government, and society.

Figure 1. Internal and External Stakeholders of Auckland Luxury Hotels

Since reputation plays a vital role in terms of satisfying stakeholders, all Auckland luxury hotels expect industry-wide acknowledgement for their services and brand. However, it is notable that managers of these hotels were compelled to make some significant decisions to reduce the operational costs because it was best method to reduce expenditure (Socialtables, 2021; StayNTouch, 2021). In contrast, these cost-cutting directives may damage the hotels' reputation from a stakeholders' perspective. This is discussed in detail in the following section.

Impact of Cost Control on Stakeholders in the Context of Lost Reputation

Cost management is the method of recognising and reducing an organisational cost to maximise revenues. It begins with the budgeting process of allocating funds to various departments for daily operations (Sun, 2017). However, the pressure from the owners to limit expenses sometimes encourages management to make drastic decisions which can affect the organisation's reputation (Whitla et al., 2017). To illustrate this, the recent COVID-19 pandemic has affected the hospitality industry and has changed the working patterns completely (StayNTouch, 2021). In response, most luxury hotel management took rapid action, such as employee redundancy, to save the business and to control the cost of the operations for future survival in the industry. However, COVID-19 has not been the only reason behind unprecedented incidents of cost-cutting in the past (StayNTouch, 2021). The other possible reasons are competition in the market, the arrival of new rival brands, inflation, and an increase in daily maintenance costs. The following sections are dedicated to the analysis of examples of reputational loss with five key stakeholders. Although there are many examples of lost reputation available for each stakeholder, the most significant for the Auckland luxury hotel context was selected for this discussion.

Customers

Sukmawati et al. (2018) showed that luxury amenities for guests used in rooms and restaurants accounted for 12% of total operational costs in hotels. The most common practice for reducing operational costs is removing some luxury amenities from the daily operations without guests' knowledge (Padma & Ahn, 2020). Based on the same authors, this option has been implemented by some luxury hotels worldwide and most of these decisions were made by management without the owners' consideration or approval. Furthermore, this decision had a significant impact on the reputation of those hotels in terms of poor customer reviews, negative comments on online booking sites, and reduction of personal performance indicators. Moreover, the ratings for those luxury hotels did drop dramatically on the guest satisfaction survey because of downgraded amenities.

Suppliers

Most of the luxury hotels in Auckland depend on China and India to import luxury supplies for daily operations rather than purchasing from local vendors (Xiong & Wu, 2009). Although the New Zealand products are superior in quality, some of hotel management have decided to go with imported lower quality products (Walton, 2021). Additionally, bulk imports have increased the cost of storage. However, the operational costs for years 2018 and 2019 for many luxury hotels in Auckland registered 17% higher than the previous years (Turner & Hesford, 2019). The same report showed that local suppliers lost 39% of their income from the hotel industry in Auckland in the last few years. The decision made by managers to use imported products can be challenged based on the increased operational costs and loss of business faced by local vendors.

New Zealand Government

Most of the luxury hotels in Auckland took initiatives to install recycling plants for used glass and cans (WasteMINZ, 2021). According to the product stewardship scheme of the New Zealand Government, the hotels were expected to crush the cans and bottles in the plant and pack them according to a set standard (Product Stewardship Council, 2021). However, after installing recycling plants, two luxury hotels failed their audits undertaken by the government. Later, it was discovered that management of some luxury hotels had decided to give their recycling contracts to other hotels to minimise installation costs of recycling plants and thus to reduce operational expenses (Williamson, 2017). Additionally, as reported by the same author, these hotels were fined NZ$ 30,000 and issued a precautionary notice for the same incident from the Auckland Council for Environmental Justice.

Employees

The recent COVID-19 pandemic and border closure has majorly affected international tourism and luxury hotels, particularly in Auckland, have lost the majority of their business (Walton, 2021). To survive during tough time, management has been forced to make immediate and massive cost control decision (Stuff, 2020, August). Dogru et al. (2019) reported that hotel employee salaries and wages cost 27% of the total estimated budget for 2000. One option for controlling costs in a pandemic situation is to restructure hotel staff. As a result of restructuring programmes and thus cost control, most hotels reduced their workforce due to the New Zealand lockdown situation (Stuff, 2020, August). For example, two major luxury hotels in Auckland reduced their workforce by nearly 900 employees (Stuff, 2020). In May 2020, the Chief Executive of the Tourism Industry Aotearoa predicted about 393,000 redundancies in the New Zealand hospitality sector due to having no international tourists (Walton, 2021). Although hotel managements' decision on redundancy appeared financially beneficial, it could lead to negative effects, such as anxiety and no job security for the remaining employees. This would strongly affect the organisations' reputation and could also influence its ability to attract future employees.

Society

New Zealand Government agencies proposed an initiative to give away free accommodation vouchers to homeless people to allow them to stay in hotels (Harris, 2015). However, Harris reported that this welfare proposal did not continue due to perceived issues of safety and security for fellow customers of hotels. Most of the luxury hotels mainly accommodate business-people and tourists. Christoffel (2021) defined hotels as establishments in New Zealand that provide accommodation and food for tourists and travellers. On the other hand, the Government's proposal to give free vouchers for homeless people to stay in hotels is reasonable. However, it can be argued that the hotels did not like this proposal suspecting that they may lose the ability to control hotel prices in the market.

The above discussion explains how cost control decisions made by management have affected the reputation of the hotel industry in Auckland. Since there is a reputational loss from the stakeholders' perspective, brand reconstruction should be the main focus for luxury hotels in Auckland. This will regain the reputation and keep stakeholders satisfied to ensure the future growth of the industry. Different solutions for reputation rebuilding are discussed in the following sections.

SOLUTIONS FOR REBUILDING THE REPUTATION

This part of the discussion critically evaluates the possible solutions for hotel management to rebuild and regain the reputation amongst the stakeholders. Additionally, these solutions would concentrate on controlling costs to improve revenue generation to ensure a promising future for the Auckland hospitality industry. Practical evidence from the industry-wide competitors was considered and referred to in justification of the given solutions.

Use of hotel premises as COVID-19 quarantine facilities

COVID-19 has recently had the most impact on international tourism and revenue generation for the hotel industry in Auckland. The loss to business may have encouraged management to reduce their workforce and save their business through this tough time by controlling the costs. The Australian Government has contracted luxury hotels in Sydney to use hotel facilities as quarantine facilities accommodating returnees to Australia for fourteen days (British Broadcasting Corporation, 2020). The occupancy rate for luxury hotels in Melbourne and Sydney hit 85% because of the Australian Government's decision regarding compulsory isolation (Baum et al., 2020). Additionally, Baum et al. reported that the return on investment increased by 32% for the second quarter of 2020 because of the higher occupancy. Furthermore, the hotel industry in both Australian cities saved 95% of their workers' employment over this difficult period.

Like Australia, the New Zealand Government implemented similar plans and converted luxury hotels in Auckland to isolation facilities (StayNTouch, 2020). The COVID-19 crisis created employee redundancies and played a major role in reputational loss in the hotel industry (Stuff, 2020). The decision to convert hotels into quarantine facilities provided continuous revenue generation for the hotel industry and job security for hospitality employees (StayNTouch, 2020). This decision has created business for the luxury hotels and will continue to do so until the situation returns to normal in Auckland. Successful implementation of isolation facilities helped to regain the reputation of the luxury hotel industry from the perspective of all the above-mentioned stakeholders.

Corporate Social Responsibility

An organisation's Corporate Social Responsibility strategy aligned with the needs of the local society, as well as synergy between business and community, are the main determinant factors of the financial success (De Grosbois, 2012). Sustainable practices bring global recognition and media attention to the hospitality industry by keeping the hotels in the spotlight and increasing the trust of its stakeholders (Jones et al., 2014). Furthermore, the pledge to save resources for future generations and involvement in the welfare of society through social activities provides a competitive advantage in the long run (De Grosbois, 2012). However, the focus on generating revenue for sometimes hinders such responsibilities and limits the activities to the books and records of the hotels for financial audit (Fukey & Issac, 2014).

The hospitality industry produces two million pounds of carbon emissions every year and the global think tanks have raised alarms for the need to minimise this through precautionary measures for hotels (Lenzen et al., 2018). To address this situation, the United States of America (USA) hospitality industry has introduced the initiative reduce, reuse, and recycle concepts within hotels. This helps to reduce the waste from the industry through waste management systems and the recycling of greywater for reuse in toilets. Additionally, the hotels have installed property management systems (PMSs) with automated sensors that switch lights off when there are no activities in a specific area. This saves electricity and reduces the costs for the hotels as well as contributing to the reduction in the overall carbon emissions produce by the hospitality industry. However, the finance related to the installation of such PMSs often prohibits hotel from participating in such practices (Brackett & Carr, 2015). The Luxury Hotels Association in Africa has started to distribute, through a Non-Government Organisation (NGO), leftover food gathered from all the hotels to local schools and homeless people (Sucheran, 2016). Sucheran reported that this initiative has captured the interest of international media and has become global news contributing to an improvement in the reputation of luxury hotels for its owners, the government, and the local society.

Auckland luxury hotels could take similar steps to restore the reputation of their stakeholders and to recover the media's interest in a constructive manner. Cafes and restaurants in New Zealand generate nearly 25,000 tonnes of food waste annually (Love Food hate waste New Zealand, 2021). Luxury hotels in Auckland dispose of tonnes of surplus food daily from their buffet platters in a city where the homeless beg for a meal. Hotels in Auckland could develop a programme to donate their surplus food to school children in need or to homeless people. Sustainability and CSR activities sometimes require financing but can have a positive impact on regaining reputation.

Continuous Monitoring of Online Review Sites

Hlee et al. (2018) stated that a review culture was developed on the assumption of businesses bend the truth in their marketing. On the other hand, customers do not have the motivation to lie by posting a positive review. If a customer thinks a hotel is good, then, probably it is based on their own experience. This underlining concept has increased the importance of online review sites in order to publish customer satisfaction. Additionally, choosing a hotel is an important decision when the customer is travelling to an unknown place and paying a high price. In this case, online review sites are the best place to find information the customers want (Niu & Fan, 2018). However, difficult and troublesome customers are usually the first to comment on web forums about the interactions they have had with hotel services (Hlee et al., 2018). Therefore, an active role on the part of management is critical in monitoring customer reviews in terms of reputational management.

The best practice model is the Indian luxury hotel industry where there is a designated department in the hotel where the role is to routinely monitor online platforms, such as Make My Trip, Booking.com, Expedia, and Airbnb (Sanjeev et al., 2019). Such departments concentrate on the negative reviews from customers on their hotels and respond to customers quickly with the best possible solutions. Additionally, they track the happy customers through internal mechanisms and convince them to place positive reviews on web forums. As cited in Niu & Fan (2018), the swift reaction from the hotel has a psychological effect on the customer's mind of a satisfactory sense of priority. This process is very cost-effective. After providing satisfactory solutions, the unhappy customers are converted to satisfied customers and their follow-up reviews are mostly positive ones (Niu & Fan, 2018). As a result of having such a system, the average positive review for Indian luxury hotels for the year 2019 was 87% which is the highest in the Asia Pacific region (Sanjeev et al., 2019).

As in the case discussed above, Auckland luxury hotels could adopt a similar mechanism to gain positive comments and resolve negative reviews as quickly as possible. For this process, some investment would be required but the big returns from the point of view of a happy customer would be significant. However, the associated costs of setting up such a department would have a significant effect on the annual expenditure of hotels. It would appear that further research would need to be undertaken or government support needed.

Implementation of a Cost Monitoring Accounting System

The use of cost management systems by the hospitality industry increases the efficiency of the decision-making processes of management. Various costing management systems have been used by this industry; full absorption costing, activity-based costing, marginal costing, and standard costing (Pavlatos, 2015). As stated by Pavlatos, using the right costing system, combined with the right information technology (IT) support can significantly improve the information flow to the management of the hotel. Additionally, cost management systems can reduce the budget allocation stress from managers, so they can focus on the issues of controlling costs to ensure better revenue generation (Dogru et al., 2018). However, the related cyber security threats and implementation costs for these cost management systems can have a great influence on the overall budget for the hotel (Pavlatos, 2015).

The luxury hotels located in Sydney and Melbourne use Cloudbeds and Opera PMS software which integrates the total departmental spending projection with the projected revenue generation and helps with potential budget allocation estimates (Kim et al., 2017). The information generated by the PMS allows management to take advanced steps in terms of cost control and revenue generation. The advantage of PMS software applications is that management can predict future sales and the software provides data to analyse the business and external markets (Kim et al., 2017). Additionally, this PMS software keeps the inventory up to date with the first-in-first-out (FIFO) concept which helps management to contact vendors promptly. Hotels can save a huge amount of money by preventing the waste of commodities through the use of PMS and thus increase their revenue.

Auckland luxury hotels are using the Hotelogix PMS which is an old product and sometimes creates errors while forecasting budgets (Aryee, 2020). Aryee reported that in 2017 there were a few incidents of security breaches occurring with the Hotelogix systems around the world where all the data was stolen from the database including customer details and accounting information. Cloudbeds and Opera systems are used in the Australian hospitality industry and these systems have advanced cyber security systems, but the implementation and instalment costs are high.

The adoption of Cloudbeds or Opera accounting systems could have a significant effect on management decision-making for Auckland luxury hotels. The cost efficiency and revenue creation could be backed up by effective time management with the introduction of such advanced systems. Timely decisions and secure systems would have positive effects on owners' and customers' mindsets. Management would have better resources to determine employee satisfaction and thus restore the stakeholders' confidence and their reputation.

In this study, four solutions were recommended to luxury hotel management in Auckland to support them to regain their reputation amongst their stakeholders. These solutions are the use of hotels as quarantine facilities, CSR activities, continuous monitoring of online review sites, and the implementation of the latest cost monitoring accounting systems.

ANALYSIS OF SOLUTIONS AND RECOMMENDATIONS

The solutions are discussed above Use of hotel premises as COVID-19 quarantine facilities and Corporate Social Responsibility are recommended as the most suitable practices for the management of luxury hotels in regaining their reputation. Additionally, these solutions would continue to keep hotels growing financially, they are easy to implement and can strengthen future business growth. Continuous monitoring of online review sites and implementation of a cost monitoring accounting system involve a significant amount of monetary expenditure and they are difficult to execute due to the need for extra services (possibly additional staff) within the hotel. Allocation of a significant amount of the financial budget is considered as the main obstacle for this recommendation, especially during the COVID-19 pandemic.

Use as Quarantine Facilities

COVID-19 has had the greatest influence on the Auckland hospitality industry in decades (Walton, 2021). Walton stated that due to the cancellation of flights and border closures, they have lost 75% of the overall tourism market. The COVID-19 pandemic has prompted hotel management to take decisive steps to control the costs in every aspect of the business. Owing to massive cost-cutting decisions, all stakeholders have been negatively impacted, from staff to vendors, vendors, and customers (StayNTouch, 2021). According to the World Health Organisation (WHO) (2020), after a successful COVID-19 vaccination programme, it would take another year to get things back to normal. The present pandemic has had an impacted on all luxury hotels in Auckland and nearly all stakeholders involved in this industry have been negatively affected (Socialtables, 2021). In this tough time, converting remaining luxury hotels in Auckland to quarantine isolation facilities would appear be the optimal solution.

According to the New Zealand Immigration report, 32,000 Kiwis and other visa holders were stranded overseas due to border closure and getting them back was the prime duty of the New Zealand Government (New Zealand Immigration, 2020). As per the New Zealand Immigration programme, repatriation was considered a high priority, and this continued until May 2021. The majority of New Zealanders have arrived back but booking a quarantine facility is still in high demand. Mandatory isolation for 14 days is in place and some travellers wait weeks to book a quarantine facility (New Zealand Immigration, 2020). Auckland hospitals cannot handle a huge influx of COVID-19 patients in the incidence of another outbreak, therefore the successful enforcement of controlled isolation facilities in Auckland is very important. Since Auckland International Airport is New Zealand's main airport, most of the repatriates come through this airport, therefore Auckland has an obligation to provide more quarantine facilities. Luxury hotels are the most suitable option because COVID-19 isolation standards can be implemented effectively within these facilities. This was the reason for the New Zealand Ministry of Health's approach to luxury hotels being transformed into quarantine facilities where the Government paid all the costs (Socialtables, 2021). This was a golden opportunity for luxury hotels in Auckland to get the business back and regain the reputation from their stakeholders.

With repatriation flights bringing Kiwis back from abroad, the occupancy rate in the quarantine luxury hotels hit a record 87% (Stuff, 2020). Based on the same report, the average occupancy for luxury hotels in Auckland for 2018 and 2019 was 72%. This means the quarantine facilities, in fact, brought more business than pre-COVID-19. A higher occupancy means greater requirements for the commodities and amenities. For example, Sydney hotels have asked suppliers to stock more hygiene and sanitation products such as gloves, masks, sanitisers, and disinfectants (Baum et al., 2020). Additionally, the hotels provide all the meals for those in isolation, meaning higher requirements for raw materials, this has also provided a good opportunity for suppliers. Higher occupancy rates resulted in higher labour requirements, attributed to extended hours and increased tasks required in the quarantine hotels. Lee and Kim (2020) reported that the hospitality industry needed 15% more staff which means continuous employment for existing workers as well as employment opportunities for others.

As a result of paying approximately NZ$3,000 per hotel isolation occupancy, the return on investment for the luxury hotels is expected to reach 32%, which is higher than the normal for the season which is around 25% (Stuff, 2020). Additionally, another cost saving is the bed and bathroom linen would not be changed until a request by the customer. This is a huge cost saving for the isolation hotels and means increased revenue. The share price for luxury hotels is expected to increase by 14% during this period in Auckland, meaning a good return for the shareholders (StayNTouch, 2021). The same article reported that proper conversion of a hotel to a quarantine facility is beneficial to the hotel from a local community perspective as they see this conversion process as a test for Auckland. For example, the media have published favourable reviews for Sydney hotels due to their successful conversion into isolation facilities and thanked the Government for their assistance during this difficult period (Baum et al., 2020).

Since COVID-19 related actions have had the greatest effect on the reputation of the hospitality industry for their stakeholders, being a hotel isolation facility would help to rebuild the reputation of Auckland hotels. However, isolation hotels need to take extra precautions to ensure the health and safety of their employees, returnee customers and others as it is a high-risk and involves handling possible COVID-19 positive cases.

Enhanced Corporate Social Responsibility Activities

Sustainable practices add global awareness and media exposure to the hospitality industry, keeping hotels environmentally-focused by strengthening the confidence of their stakeholders (Jones et al., 2014). Customers are well aware of the ecological policies embraced by luxury hotels in terms of sustainability. The introduction of new eco-friendly practices is believed to be prohibitively costly (Jones at al., 2014). However, as claimed by Hsiao and Chuang (2016), the operating costs of inefficient hotel facilities are always much greater than the initial expense of introducing modern practices.

Influence on customer conduct is an advanced way for hotels to seek environmental protection and thus to capture attention from the media. Organising tree planting programmes through customer groups can bring admiration from eco-friendly people for the hotel. Additionally, these activities could attract the attention of local media enabling the hotel to gain publicity, as well as recognition in the local community. For example, by arranging such activities, Dubai hotels earned large group bookings from Europe every month and thus increased the business operations and reputation industry-wide (Giardina, 2019).

Except for customers, engaging upstream vendors will also help to raise the hotels' environmental sustainability outcomes. Many scholars have studied and stressed that successful cooperation between hotels and mainstream supply chain partners will promote the implementation of environmentally sustainable practices (Kumar & Rahman, 2016). The same authors also suggest that the Marriott Hotel chain has collaborated with suppliers to design lighter paper packages for bathroom facilities, reducing 6,000 kilograms of paper each year (Kumar & Rahman, 2016); this initiative has generated US$16,000 and paid 40% as a bonus to the suppliers.

As employees have direct access to daily activities, hotels can rely on every employee's involvement and constant attempts to take environmentally friendly actions (Jones et al., 2014). It is believed that engaging employees from the very beginning of sustainable initiatives helps them feel a strong sense of ownership, which in turn contributes to higher employee output and loyalty (Jones et al., 2014). For example, as shown by the same author, the Accor Group has installed a five bin system for rubbish collection from the guest rooms where waste such as plastic, cans, papers, bottles, and wet garbage is separated out. The contents of the bins are brought back to be incinerated at the end of each shift and the amount of rubbish is noted by weight in a register. Every month the hotel general manager honours, in the staff meeting, the three employees who collected the highest amount of waste (Jones et al., 2014). Additionally, the British Broadcasting Corporation (BBC) have also created a series on the Accor Group's project, has been enabling them to improve their popularity worldwide, ultimately satisfying their stakeholders (British Broadcasting Corporation, 2020).

Similar initiatives in Auckland luxury hotels would help to restore their reputation worldwide. It would attract the customers' attention and therefore help to improve sales as well as the reputation of the brand. The involvement of the stakeholders in CSR activities would also boost their confidence and help Auckland luxury hotels to rebuild their reputation.

CONCLUSION

This study concludes that management decisions have a significant impact on the reputation of the hotel from the point of view of stakeholders. Therefore, this study focused on Auckland luxury hotels to identify if reputation was lost from stakeholders' viewpoint. The key stakeholders identified were employees, managers, owners, suppliers, shareholders, customers, government, and society. This study discovered that the past managerial decisions have greatly impacted the reputation luxury hotels in Auckland. An industry-wide comparison, including competitors, has shown that cost reduction initiatives made by management have significantly impacted on the loss of reputation from the stakeholders' perspective.

There are four initiatives proposed to regain reputation, namely, the use of hotels as COVID-19 quarantine facilities, implementing CSR, continuous monitoring of online review sites, and implementation of a cost monitoring accounting system. Each solution was analysed in terms of regaining reputation by stakeholders, cost-effectiveness and the most suitable approaches in a COVID-19 pandemic. The recommendations from this study are use as quarantine facilities and enhanced CSR activities would appear to be the optimum solutions for regaining the reputation of Auckland luxury hotels from a stakeholders' perspective.

Ankursinh Chandrasinh Chauhan qualified with a bachelor's of hotel and tourism management in 2011. Since than he was working with different hotels and cruise ship companies around the world. His desire to explore more in the hospitality industry which brought him to Otago Polytechnic Auckland International Campus in 2019. He completed his Master of Applied Management majoring in Business Management in 2021.

Indrapriya Kularatne is a Principal Lecturer at Otago Polytechnic Auckland International Campus New Zealand. He has obtained his Ph.D. from the University of Auckland, Master of Management from the Massey University and Master of Science from the University of Sri Jayawardenepura (Sri Lanka). His research focuses on sustainability, environmental management, employability skills, project management and corporate social responsibility.

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https://doi.org/10.34074/rere.00111

Article

TECHNOLOGY-DRIVEN PRACTICAL EFFICIENCY IN TALENT RECRUITMENT PROCESS IN NEW ZEALAND

Nupoor Dhurandhar and Bing Dai

ABSTRACT

Human resources are the key assets of any organisation. Businesses in order to survive in today's fast-changing world not only rely on human resources, but they also need technology in addition to support their day-to-day activities (du Plessis & Frederick, 2012). As one of the main functions in human resource management, talent recruitment is refers to the processes to search, attract and hire capable candidates to satisfy organisations' needs for human resources. Organisations have to improve the efficiency of recruitment as there are significant financial implications for them (Marler & Parry, 2016). In fact, they have started moving away from traditional recruitment methods for reducing the inefficiencies and ineffectiveness in attaining suitable candidates for their operational needs. Instead, the adoption of e-recruitment is evidently more popular in New Zealand talent recruitment practice in the recent decade (du Plessis & Frederick, 2012; Rahman, et al., 2014). Technological advancement including the introduction of the latest Artificial intelligence, is a perceived solution for the enhancement of practical efficiency in talent recruitment (Raviprolu, 2017; Upadhyay & Khandelwal, 2018). Despite the importance and perceived usefulness in improving talent recruitment efficiency (Rodney et al., 2019; Vedapradha et al., 2019), little was known about the e-recruitment practices and the adoption of AI for recruitment in New Zealand. This research aims to fill this gap in the extant literature and to obtain an understanding of the evolvement of talent recruitment practice as impacted by the latest advancements of various technologies.

This research adopts content analysis (Krippendorff, 1989) to scrutinise recruitment processes published or displayed on an organisation's websites, social media, and recruitment platforms by 40 large New Zealand organisations. Certain keywords like recruitment practice, recruitment process, hiring process, careers, apply, hire, employ, LinkedIn, SEEK, Glassdoor, and employment policy were used for searching for the secondary data. An inductive approach was used to compare and contrast the collected data to identify the similarities and patterns for modelling the New Zealand e-recruitment process. The findings identify the frequently used recruitment technologies by New Zealand organisations, and there is evidence that a few organisations have started incorporating Artificial Intelligence in their talent recruitment.

Keywords: e-recruitment, AI applications, recruitment methods and processes

INTRODUCTION

Human resources are the key assets of any organisation. Businesses to survive in today's fast-changing world not only rely on human resources ((HR) but they need technology in addition to support their day-to-day activities (du Plessis & Frederick, 2012; Marler & Parry, 2016). Recruitment is one of the main human resource management (HRM) functions, which involves searching and attracting capable applicants from a pool of applicants. Organisations have to improve the efficiency of recruitment as there are significant financial implications for them (Barber, 2006; du Plessis & Frederick, 2012). In their empirical study of HRM in New Zealand (NZ), du Plessis et al. (2006) identified a significant gap between organisational capabilities and talent recruitment and further suggested HR practitioners value international experience, computer literacy, and change management. This suggestion is still valid in the New Zealand HRM context today as technology has leapt forward towards Artificial Intelligence (AI) applications and the gaps still need to be closed. This research aims to investigate NZ organisations' adoption of technology for recruitment practice and the implication of AI advancement to NZ HR practitioners.

LITERATURE REVIEW

Recruitment is the process of identifying potential talents to fill those job vacancies (Geetha & Bhanu, 2018), which typically includes advertising vacancies, receiving applications, shortlisting applicants, interviewing applicants, and selecting the right candidates (Barber, 2006; du Plessis & Frederick, 2012). Traditional recruitment largely replied on paper, radio, or TV-based advertisements, paper-based resume, and face-to-face interviews, which was time and resource consuming with low efficiency and geographic constraints in securing the most suitable candidates for organisations (du Plessis & Frederick, 2012). These shortfalls stress organisations to move away from traditional recruitment, and the late technological advancement enables organisations to utilise electronic networking resources (i.e. the Internet), various types of software and hardware, and online communication tools (i.e. Zoom and Microsoft (MS) Teams) to improve the effectiveness of recruitment (Barber, 2006; du Plessis & Frederick, 2012; Marler & Parry, 2016). Furthermore, the emergence of AI enticed some pioneer HR researchers to advocate the adoption of AI for future recruitment practices (Nawaz, 2019; Raviprolu, 2017; Rodney et al., 2019; Upadhyay & Khandelwal, 2018; Vedapradha et al., 2019). The following paragraphs review some commonly adopted approaches to e-recruitment and AI recruitment.

Organisations commonly use one or more of the following approaches to e-recruitment: a recruitment portal on the organisation's website, a recruitment account on agency/job listing websites, and recruitment advertisements via the organisation's social media account. The official recruitment portal on an organisation's website created and maintained by the organisation displays job advertisements, job application information, and links for submitting job applications (Braddyet al., 2006), which reduces the traffic of messages and documents between applicants, recruitment agents, the direct manager and the HR personnel (Braddy et al., 2006; Cappelli, 2001). Organisation's websites can also be used to showcase the organisational culture to try and attract applicants (Braddy et al., 2006) so that the applicant-organisation fit would be better achieved (Cober et al., 2000). However, an official portal may not be as effective if the portal is not informative or well-managed (Cable & Yu, 2006). Also, an official portal offers limited options to job applicants compared with job advertisements on agency websites.

Organisations can use job listing websites to post job vacancies to significantly increase the number of viewers of the advertisements. This is because job listing websites provide the convenience for job applicants to search for positions appropriate to their experiences and qualifications across different organisations (Braddy et al., 2006). Organisations also get a chance to search through resumes as millions of applicants post their resumes on popular job listing websites, i.e. SEEK, (Cappelli, 2001). There is a rapid growth in job search using third party websites; this has changed the way how job seekers look for the jobs and how organisations conduct their recruitment processes.

The emergent popularity of social media worldwide has enticed many organisations to set up their social media accounts and advertise their job vacancies (Bicky & Kwok, 2011; Rahman et al., 2014). Social media, i.e. Instagram or Facebook, provide a platform for people to communicate with family and friends and extend their social network in an informal way (Rahman et al., 2014). LinkedIn, a networking website specialising in recruitment solutions (LinkedIn, n.d.), boosted the use of social media for recruitment by organisations (Rahman et al., 2014). Rahman et al. (2014) also suggested that social media offers incomparable support to organisations for efficient recruitment and corporate band promotion, and there is a rapid growth of using social media for recruitment in NZ.

A school of researchers have started advocating for the adoption of AI for recruitment practice because of AI's advantages in replacing repetitive recruitment tasks and diverting recruiters' roles to be more creative and strategically focused (AI Forum New Zealand, 2018; Geetha & Bhanu, 2018; Raviprolu, 2017; Rodney et al., 2019; Upadhyay & Khandelwal, 2018). McCarthy (1956) defines AI as "the science and engineering of making intelligent machines, especially intelligent computer programs" (Geetha & Bhanu, 2018, p. 64). The key functionalities of AI are to work similarly to human intelligence such as learning, analysing, identifying, and correcting information to deliver meaningful outcomes (Geetha & Bhanu, 2018). AI applications in recruitment practice include screening applicants, applicant engagement, applicant re-engagement, post-offer acceptance, new hire onboarding, and interview scheduling (Geetha & Bhanu, 2018; Raviprolu, 2017). Although the benefits from adopting AI for recruitment are well-perceived by HR practitioners and proven in latest studies, the empirical evidence of how AI is adopted by organisations is still under-investigated.

This research, in particular, is interested in how NZ organisations adopt advanced technologies for recruitment. The reason for defining this aim is that e-recruitment and AI technologies can lead to a high amount of investment (Lepak et., 2007) for NZ organisations but the NZ economic scale is small (AI Forum New Zealand, 2018) compared with other developed countries. The knowledge of NZ organisations' adoption of information and AI technology for talent recruitment will be helpful for AI developers to consider their future design, which better serves NZ recruitment practice. On the other hand, this knowledge could also assist NZ HR practitioners to reconsider HR strategies for NZ organisations when AI is more mature for recruitment and more widely adopted in NZ.

The effectiveness and efficiency of recruitment processes has material financial implications for organisations (du Plessis & Frederick, 2012). However, little was known about the recruitment processes adopted by organisations in New Zealand in the 21st century, and hence this research aims to reduce the identified knowledge gap in the literature. This research will answer the following questions.

1. What are the current recruitment processes adopted by NZ organisations?
2. What are the challenges of the introduction of AI in recruitment practices in NZ?

RESEARCH METHODS

This research applied Organisational Contingency Theory (OCT) to underpin the analysis of data and the conclusion of meaningful findings. Woodward (1965) and the subsequent studies adopt the lens of OCT to suggest positive interrelations between the use of information technology and the improvement of operational efficiency. Operational efficiency can be assessed from transactional uncertainty, risk management, administrative process management, and decision-making effectiveness (Marler & Parry, 2016). According to OCT, it can be inferred that organisations that adopt and update information technology for recruitment practice will deliver better efficiency in terms of reduced uncertainties concerning recruitment processes.

This research is mainly qualitative and adopts content analysis (Krippendorff, 1989) to search for and analyse data published by NZ organisations, guides the systematic coding of collected data to identify meaningful codes and themes. The codes and themes will be redefined and reconceptualised to a satisfactory level so that the findings will be valid and justified (Krippendorff, 1989). Finally an applied inductive approach was used to compare and contrast the collected data to identify the similarities and patterns for drawing conclusive findings. Descriptive statistics were also used for interpreting the findings.

One-hundred and ninety large-sized NZ organisations including listed companies, universities, banks, and governmental organisations were targeted. The reasons for this selection criteria include: 1) these organisations are more likely to invest in information technology and AI technology, and 2) the research had better opportunities to find published recruitment processes from open resources in public. Data was collected through secondary sources such as organisations' websites, organisations' documents, and other relevant web sources. Certain keywords such as recruitment practice, recruitment process, hiring process, careers, apply, hire, employ, LinkedIn, SEEK, Glassdoor and employment policy were used to start the data collection. After the screening process was completed in May 2020, 40 out of the targeted 190 organisations were found to have available information on their recruitment processes. The 40 sample organisations are from 16 different industries. This coverage of industries makes the selected data arguably representative to the targeted NZ large organisations. Most of these organisations are managing a range from 500 to more than 10,000 employees.

The collected data included descriptions and explanations of practices used by the 40 organisations. The researcher screened 164 items of documented recruitment processes and classified them into the following 12 codes (see Table 1). Further analysis was built on these 12 codes of processes to understand to what extent e-recruitment technology or AI was adopted by the organisations. The commonly adopted processes were used to draw a flow chart (see Figure 1) for explaining the current status of NZ recruitment practice.

Table 1. Codes of Recruitment Processes

CODE NUMBER	RECRUITMENT PROCESS (CODES)	NUMBER OF ORGANISATIONS ADOPTING THE PROCESS	PERCENTAGE OF THE SAMPLE SIZE (40 ORGANISATIONS)
	Social media for job advertisements	40	100%
	Job application via organisation websites	39	97.5%
	Mobile App	2	5%
	Profile creation /personal profile register	32	80%
	Job alerts	19	47.5%
	Email application	12	30%
	Using keywords to search vacancies	32	80%
	Expression of interest	16	40%
	Application assessment and shortlist	22	55%
	Phone screening	16	40%
	Video screening	8	20%
	Face to face interview	16	40%

FINDING AND DISCUSSION

The key findings that emerged from the data analysis include NZ organisations' implementation of multiple recruitment strategies, currently adopted recruitment processes, latest application of e-recruitment technologies, and limited utilisation of AI technology.

Adoption of multiple recruitment approaches

As presented in Table 2, all the selected organisations use more or fewer e-recruitment processes with a combination of traditional recruitment methods. About 40% of the selected organisations still use some form of traditional processes such as manual assessment of applicants, telephone interviews, and face-to-face interviews. However, this finding may be limited by the information published by the organisations.

One explanation for this remaining traditional practice is perhaps HR practitioners' preferences and conventions of using manual assessments of applicant. It is also speculated that there were no suitable technological substitutions available for the organisations.

The majority of the selected organisations (more than 98%) dually use their organisation websites and via social media for their job advertisements. Also, most organisations (80%) enable keyword search for their advertised vacancies so that the job advertisements can reach a wider group of job seekers. In addition, most organisations linked job application processes to their HRM system where applicant profiles were registered for creating a pool of talent. These practices reflect organisational contingency theory as the reduced uncertainty is realised by utilisation of multiple OCT recruitment technologies, hence organisations attain improved effectiveness and efficiency of the recruitment processes. Compared with the finding in the Rahman et al. (2014) study, NZ organisations' adoption of social media for recruitment has improved significantly over the last seven years.

Most of the selected organisations (80%) require applicants to create a profile in the organisations' HRM portal/system. Two organisations developed Mobile Apps for applicants to apply for their advertised vacancies. The utilisation of applicant registration through the use of mobile apps could be a potential step for organisations to move towards the adoption of AI as information on a pool of talent would be collected and stored for future AI applications.

Table 2. Industrial Distribution of Selected Organisations

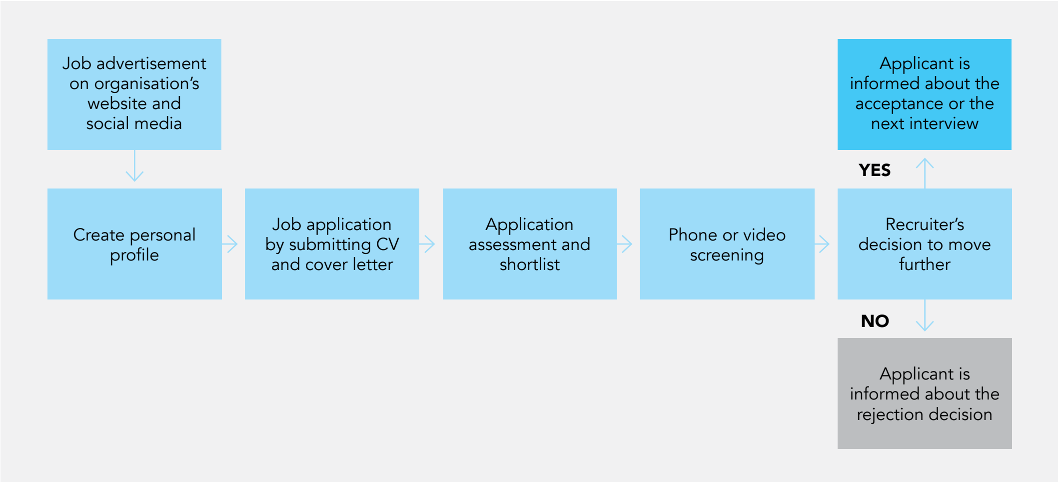
INDUSTRY	NUMBER OF ORGANISATIONS	COMMONLY ADOPTED PROCESSES
Aviation	1	1,2,4,7,8,9,10
Banking, Financial Services, Insurance	10	1,2,4,5,6,7,8,9,10,11,12
Civil Engineering	1	1,2,3,4,9,11,12
Consumer Goods	1	1,2,4
Dairy	1	1,2,4,5,6,7,9
Education & Educational management	8	1,2,4,5,7,8,9,10,12
Food & Beverages, Food research	2	1,2,4,9
Government	1	1,2,4,7,11
Health, Wellness & Fitness, Hospital & Health Care	5	1,2,4,5,7,8,9,10,12
Information Technology & Services, Computer Software	2	1,2,4,5,6,8,10,12
Manufacturing	1	1,2,4,5,9,10,12
Media	1	1,2,8,9,10,12
Oil & Energy	2	1,2,7,9
Telecommunications	1	1,2,4,5,7,9,10,11,12
Utilities	2	1,2,4,5,6,7,9
Wine & Spirits	1	1,2,3,4,5,6,7

COMMON RECRUITMENT PRACTICE

Based on the observations of common recruitment processes adopted by different industries, an illustrative flowchart (see Figure 1) presents the extent of the application of e-recruitment technologies by NZ organisations. Although Consumer Goods, Food & Beverages, and Oil & Energy industries appeared to have limited use of e-recruitment technologies. Their limited usage was ignored in generating the flowchart as there may be a limitation of publicly available information and only a few organisations were included in these industries.

As illustrated in Figure 1 , NZ organisations generally advertise job vacancies on their organisation's website and via social media to inform job applicants. Job applicants are generally required to create their profile in the organisations' HRM systems before submitting their curriculum vitae (CV) and cover letter. This is then followed by an assessment of applications and shortlist the candidates. The shortlisted candidates will then be called for a phone or video interview. The HR recruiter will then decide to reject the candidate or take them to the next interview before offering the job. In summary, NZ organisations have to a significant degree been using e-recruitment practices gradually updating traditional recruitment processes with e-recruitment technologies.

Figure 1. Commonly Adopted Recruitment Process in New Zealand



LATEST APPLICATIONS OF E-RECRUITMENT TECHNOLOGIES

Referring to the process code displayed in Table 1 and the summarised processes by industries in Table 2, two of the latest technologies video conference (code number 11) and Mobile App (code number 3) have been adopted by several industries. It was observed that video conferencing has been favoured by banks including the Banking Group Australia and New Zealand (ANZ), Reserve Bank of New Zealand and Bank of New Zealand, whose intention it was to hire applicants from overseas and secure the candidates with best skills and experience. As recommended by du Plessis and Frederick (2012), video conferencing is one of the ways to enhance the effectiveness of recruiting for technical roles. The New Zealand Government also uses video conferencing instead of face- to- face interviews. This finding contradicts that the private sector continuously explores the benefits of new technology compared to the government sector which perceives the benefits are limited (McDonough & Polzer, 2012). Additionally, one organisation in each in of the Civil Engineering and Telecommunications also use video conferencing to screen applicants for improving recruitment effectiveness and efficiency. Nonetheless, online interviews would foreseeably be expanded to other industries as a result of the COVID-19 pandemic travel and physical distancing restrictions due to the advancement of online communication platforms (i.e. Zoom and MS Teams)..

The Mobile App, although only two organisations claimed their adoption of this technology, has emerged in recent years. It has advantages such as direct access to candidates' mobile phones and reduced time in administrative processes. Furthermore, the Mobile App is one of the platforms that AI technologies utilise for intelligently directing suitable talent to recruiters (Upadhyay & Khandelwal, 2018). Thus, future uses of this technology could foreseeably be fostered by NZ organisations.

LIMITED ADOPTION OF AI

Only one of the 40 organisations claimed to use AI for recruitment and the application is limited at the initial stage – advertising vacancies via social media. The organisation applies an employment philosophy to its enterprise management system, which includes a multi-dimensional, wide-ranging talent frame system. This system uses algorithms to analyse the data which looks for patterns and applies a machine learning technique for job advertisement strategies. The effectiveness of this application cannot be assessed as there is limited disclosure of information.

One challenge for adopting AI for recruitment is the potential breach of NZ Privacy Act 2020 and other ethical issues caused by scanning social media accounts of potential candidates. Another challenge is the cost-benefit considerations for organisations as AI is seen as high-investment technology and NZ lacks the economic scale (AI Forum New Zealand, 2018). It has also been pointed out that NZ's pace for getting prepared for the adoption of AI is slow and NZ organisations are far from full digitalisation (AI Forum New Zealand, 2018).

CONCLUSION

This research offers insight into NZ organisations' adoption of advanced technologies for recruitment practice. Data was carefully analysed and discussed the findings from the process and industrial perspectives. It was found that NZ organisations apply more than three e-recruitment techniques to increase their opportunities of securing the right candidates for their positions. Technologies have been adopted by NZ organisations in every recruitment stage from job advertisements to the final recruitment decision. Also, some advanced technologies such as video conferencing and Mobile Apps have been evident in the latest e-recruitment practice. All of the above evidence demonstrates the significant improvement in e-recruitment practice in NZ organisations over the last decade (see the findings in du Plessis & Frederick, 2012; and Rahman et al., 2014 study).

Evidence also indicated the application of AI, although it was very limited. NZ adoption of AI for recruitment is highly challenging and NZ may be lagging behind other developed countries due to its economic scale. It is urged that the NZ Government should establish a national AI strategy to promote AI applications in NZ organisation management (AI Forum New Zealand, 2018). Also, the designers of AI technology should consider tailored applications to meet NZ organisational needs in terms of legal, ethical, and economic constraints.

The limitations of this research is the findings were drawn from publicly available data, which were collected on and before 8 May 2020. Future research could replicate the research method for collecting and analysing larger-scale data or interview NZ HR practitioners to further validation of these findings. It would also be interesting for future researchers to investigate the influence of the COVID-19 pandemic on the use of e-recruitment technologies to improve the effectiveness and efficiency of obtaining suitable candidates to meet the organisational needs.

Nupoor Dhurandhar has been a human resource practitioner worked and working in different Indian organisations. She holds strong skills in people and culture management and completed her study of Postgraduate Diploma in Applied Management (PGDAM)at Otago Polytechnic Auckland International Campus in 2020. This research was conducted in fulfilment of the requirements of her PGDAM qualification.

Bing Dai has been teaching business courses at different tertiary educational organisations in New Zealand for more than 10 years. She was the supervisor of this research project and she is currently supervising master thesis projects at Otago Polytechnic Auckland International Campus . She is currently a Ph.D. candidate at Auckland University of Technology (AUT). **ORCID: 0000-0003-3917-2208**

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https://doi.org/10.34074/rere.00112

Article

OUR NEW BLENDED NORM: A STUDENT & STAFF DIALOGUE REFLECTING ON THE COVID-19 TRIALS AND TRIBULATIONS IN TERTIARY EDUCATION.

Yury Zhukov and Christiaan Brendenkamp

ABSTRACT

Experiential learning has become a cornerstone of the teaching methodology used at Otago Polytechnic Auckland International Campus (OPAIC). The value of this model lies in its unique culture that relies on the lecturer-student interaction. It focuses on cultivating experiences as a primary education delivery mechanism instead of relying on teacher-centric techniques. Under normal circumstances, this makes for a great learning experience as students have to learn by doing and interacting directly with the subject matter. Things changed when New Zealand went under lockdown for the first time in March 2020. The staff and students at OPAIC quickly switched to a fully online and, later, blended model where teaching could move seamlessly between the classroom and online as and when needed.

The paper explores the perspective of a newly enrolled student on the effectiveness of experiential learning in a blended environment. It presents a reflective dialogue between the authors on communication challenges imposed by lockdowns and engaging with educational materials. This reflection emerging through a conversation highlights the potentially problematic aspects of the student induction in the educational process and recommends areas that require further attention and strengthening to achieve the results promised by experiential learning in the new normal. The student perspective is supplemented by the lecturer's view on how OPAIC could address some of the highlighted challenges along with future possibilities for authentic partnership between students and lecturers to improve the students' experience in the Tertiary environment.

Keywords: COVID-19; Hybrid learning; Experiential learning; Student reflection

The paper is a conversation between the two authors. Words of the lecturer are in italics and the student's responses are in regular font. All statements present a personal perspective of the authors and are intended to encourage an open dialogue and partnership between educators and students to cocreate a more effective tertiary experience. The authors believe that an open dialogue is necessary and particularly critical in times of crises predicated on a myriad of factors, all of which have been exacerbated and pulled into shrper focus by COVID-19 and the global changes perpetuated by it. It is the authors' hope that allowing authentic voices to be heard in decision-making processes at all levels can result in a genuine amelioration of conditions for those most affected by the changes.

"You joined OPAIC as a student in late 2020. You avoided the first lockdowns that New Zealand experienced and did not have to go through the traumatic and turbulent transition to emergency online classes (Zhukov & Staples, 2020). You joined OPAIC once it had already had time to develop unified approaches to online studies and course design techniques that would allow for instant switches. We have probably taken a step back from the level of preparedness that we had in the middle of 2020 after the first

lockdown. It feels that some of the practices that became routine during online classes are being reverted, and this may negatively affect our ability to deliver blended learning. One thing that I know has been brought back to the pre-lockdown scenario is orientation. Could you tell me a little bit about your experience with an orientation at OPAIC?"

ORIENTATION EXPERIENCE

"Starting my studies at OPAIC presented unique challenges for me and my classmates, lecturers, and the rest of the staff on campus. The first day of orientation already set the tone for how OPAIC dealt with the COVID-19 pandemic. By the time I arrived on campus New Zealand had already experienced its first few lockdowns and the staff at OPAIC had already gone through the worst of it.

The orientation started with the Chief Executive Officer (CEO) introducing himself, taking a seat in front of us, and inviting us to join an informal, honest discussion of our current situation. This was a new experience for me and one that made me feel at ease. The CEO's humble demeanour communicated to me that as students we were being included in the overall discussion on the happenings around campus. This was a discussion and not a monologue."

"Do you think orientation helped prepare you for the realities of your studies? In hindsight, what would you want to see introduced during orientation rather than learning it by trial and error?"

"The orientation did not prepare the students to do research, reference, or deliver proper academic writing. At OPAIC it was very different from what I had experienced in previous academic settings. It seemed rushed, with a lot of information being crammed into a few sessions held on a single day. This fast pacing does not provide adequate breathing room for newcomers to get accustomed to their alien surroundings.

Prior academic orientations that I had experienced were a multi-week affair with each day focusing on a single aspect of the studies and student life. One day we would go to the Information Technology (IT) department to get our login sorted, devices connected to the campus Wi-Fi, and have a chance to ask any IT-related questions we might have. The next day we would go to get our student cards sorted out. The Student Success Team provided us with a recommended schedule for when to get things done, but it could still be done out of order and in our own time.

The most beneficial part of my prior orientations that I think OPAIC can learn from is how to handle study skills. At my previous institution, all students were required to complete a test that would evaluate certain study skills. The context as to what was tested and why would be different for OPAIC. I have seen and heard that students primarily struggle with English writing, referencing, and conducting research using peer-reviewed sources. I think it would be in OPAIC's best interests to have students undertake a test to evaluate their competency in these areas during orientation. If the students score below a certain level, they should be enrolled in a compulsory course. The academic support services on campus would then be responsible for providing that course. This way they would get acquainted with the staff there, and it would normalise the idea of going there for academic support."

"I agree that orientation is very brief. We try to cram a bit of academic information into the orientation, but I am not sure how much is retained. But we used to have academic workshops happening throughout the term until 2021. The turnout was insufficient to keep them going. I wonder if making the study-skills courses a compulsory part of the orientation could be a more effective solution. It would make at least some of the students better prepared for the classes (Qayyum, 2018). And speaking of classes, could you please share your impressions of them?"

CLASSROOM EXPERIENCE

"OPAIC's classroom experience was similar to the orientation I went through. I would argue that we did not have lecturers, because "lecturer" would not be the right term, as they did not lecture us. We had open discussions directed by the lecturer. It was my first time being taught with the experiential learning model."

"I prefer the term "educator" or "facilitator".

"Before I came to New Zealand I was working as a lecturer at a university in South Africa. I was unfamiliar with experiential learning, but from my teaching, I had always made it my goal to include students in the discussion as much as possible. I was glad to see that OPAIC's teaching methods had the same aim.

I found experiential learning to be a wonderful tool for student engagement. A challenge that I noticed the lecturers had was getting the students out of their comfort zones and participating in the classroom setting. This might have been due to differing cultural norms and expectations. I think compulsory teamwork built into most of the courses helped bridge that gap. This helped the more introverted students and those who did not feel comfortable participating in a general class discussion to start opening up and participating in the activities.

The experience I had in my very first class at OPAIC was not what I was expecting. It went against the status quo that I had become accustomed to. I was pleasantly surprised as it had been the same learning environment that I strived to create within my classroom when I was teaching. A loosely structured environment where students are encouraged to provide ideas and share experiences as part of the learning journey was a joy to behold.

I am not the right person to ask about comfort zones because to me comfort zones are the furthest thing from actual comfort. It makes me think of predictably endless monotony. It is, however, a challenge for teachers to overcome in the classroom. Getting students to engage is not easy and in my experience, it becomes harder and harder as the classroom size increases. Having a small intimate setting where students don't have to raise their voice just to be heard lowers the barrier for them to participate in the lesson.

There is one thing that I think makes it harder for students to engage – the perception of expected vs. voluntary participation. If students are told from the start that they are required to participate in class discussion, they seem to rebel against that. Nobody wants to be told what they need to do. This is fine for presentations but not the classroom in general. Passionate voluntary participation can only blossom in an environment that encourages students to share their interests. Passion begets passion. If lecturers can find ways to link a student's interest to what is being discussed in class then they will have a higher chance of having more student participation overall."

"There is an expectation embedded in the educational process that both students and teachers participate in it (Kim et al., 2019). I am not sure that rebellion against a requirement for class participation is appropriate in a tertiary setting. But I understand what you are saying. There could be an unconscious bias against engaging with materials that seem disconnected from one's reality. Giving students agency in selecting their topics is a non-transient tribulation (Nugent et al., 2018; Wei, 2018). How did you cope with online and blended classes?"

MIXED CLASSROOM EXPERIENCE

"Experiential learning, group exercises & challenges were all wonderful ways of helping students put theory into practice. I would say that the biggest obstacle to the success of these teaching methods is hybrid and online classes. At OP AIC I had experienced both online-only classes due to lockdowns and hybrid classes with some of my classmates being stuck overseas.

The online classes I attended during lockdowns varied from class to class. Some were long monologues from teachers, a big departure from what I had experienced on campus. Others were short monologue classes of about one hour or less followed by an assignment we had to complete in our own time. Some of the lecturers did try to get students to engage online, but most were hesitant to join in. Many of the students did not want to turn on their cameras or even use their microphones. Some of the students only felt comfortable communicating through the class chat system.

I did my best to participate and ask questions in the online classes. I could see the frustration the lecturers experienced in their mostly failed attempts to get student participation. Having class strictly online was new and unfamiliar territory for both the lecturers and the students. Every student I talked with said they prefer class on campus and that they would not have studied at OPAIC if it had been online only."

"Did the education methodology shift significantly when you had to go online (Dai et al., 2020)? Having seen the system from the perspective of a student, how would you recommend getting students more engaged online? Did you feel that the experiential approach could have been facilitated in the online environment?"

"The education methodology did indeed experience a dramatic shift when classes went online. I would say that experiential learning in the traditional sense does not translate well into the online environment. The learning environment itself goes through a significant shift, from the classroom to the home. I have heard from both students and lecturers that when at home students tend to "multi-task" between classroom activities and actions they would only perform from the comfort and privacy of their homes. This leads to distraction and disinterest, making it harder for the lecturers to compete for attention and almost impossible to cultivate student participation. Having more challenges and short projects is one method that could potentially offer a successful recasting of experiential learning to online learning (Wang et al., 2013). This helps students focus on the task at hand making them less likely to busy themselves with other things (Wang et al., 2013).

The question one might have after reading this is will it work with group projects? In my experience, the answer is no. I have taken part in an online collaborative assignment, working with two of my classmates. One was in Hamilton and the other in mainland China. Even though we had teams open and collaborated in real-time on the same document we all tended to work in isolation. Nobody used the VOIP (Voice Over Internet Protocol) system, only offering text updates on their work now and then. The real-time document collaboration itself was more of a gimmick than anything else. All of us started working on our separate documents whilst neglecting the main document. This experience showed me that if experiential learning was to succeed online it would have to do so through individual works shared with the group. Using VOIP systems can lead to people talking over each other or feeling like they are speaking into a cold and heartless void. Having lecturers provide short monologues of teaching followed by time-sensitive projects and presentations by students seems like the future of online experiential learning. This way students don't get distracted, the messaging is clear and they still get to learn and share through experiences."

"Project-based learning is one of the cornerstones of experiential learning (Altay et al., 2016; Geitz et al., 2019). It makes sense to have small and manageable milestones that would lead students through the overarching course project. From what I have seen, this works reasonably well in some online courses, but it also helps transition between online, blended, and face-to-face models rather easily. The level of engagement probably also depends on how comfortable a student feels in a team. Please, carry on."

UNIQUE INTERNATIONAL STUDENT CHALLENGES

"As previously mentioned the blended class situation is a hard one to deal with, especially in group work. I have had offshore group members in two of my classes and had experienced similar problems in both instances. Some of these challenges are unique to international students as it adds language and cultural differences into the mix. What I have found is our group functioned better when one of the group members in the class had a similar cultural and linguistic background to that of the offshore group member. It helped them feel more at ease knowing that there was a team member oncampus who would be able to understand and easily relate to them."

"As a member of the student team, did you feel that the students online were either left out or did not engage with activities? How would you change the activities to better work for both physical and digital classrooms?"

"That is an interesting question with an unfortunately disappointing answer. When students work together in close proximity they feel a stronger urge to do their part for the team. It becomes a lot easier to disengage as the physical distance between team members grows. Another challenge I found was that solely online students sometimes lack the correct context to participate properly. They might have a difficult time hearing or understanding the lecturer due to low internet bandwidth or have language-related challenges.

Whatever the cause may be it leaves team members who are in class in a difficult position. I want to include them in what the group is doing but I also do not want to provide proper context to hijack the entire group work session. What usually happens is that the online student provides a contribution that is of little to no value to the project, but I thank them for their efforts and move forward with the work. If I do find value in their contribution then I include it in the project. This whole ordeal is a frustrating experience for everyone involved.

It is hard for me to draw from my previous teaching background to solve this problem as I had never experienced a situation like this before. What I do think would make students feel more comfortable and provide them with the proper context and understanding is to have a student with a similar cultural background in the group. What I did in one group to help bridge the language and knowledge gap was to ask an team member on campus to have a separate session with the online student. This way they would have more than enough time to provide a proper context and answer any questions the online student might have in their native tongue. This solution freed up time in the class sessions to focus on the group work while also being able to support the online student and make them feel included in the project."

"It seems that to successfully work together online students need to be able to work almost autonomously (Dabbagh & Fake, 2017). This seems to be leading back to course design. And in this case, I think educators could borrow the know-how from project management. If the lecturers from the very beginning, knowing the constraints of online courses, do not position themselves as the locus of class activities, but act as project managers supplying detailed tasks to teams and individual team members with specific allocated deliverables and integration criteria, the result could be different. Classes could be more like standup meetings, and sprint-planning sessions rolled into one. Do you think this is a concept we could explore further?"

RECOMMENDATIONS

"Yes, this new normal that tertiary institutions find themselves in necessitates a critical reflection of course outlines. The way courses function should improve the student experience. This has become more challenging with the new blended class standard that the OPAIC now has. Project management (PM) as a means of facilitating learning is an interesting idea. At OPAIC this might prove beneficial as PM will be part of the workplace most students should end up at after their studies. Construction, IT, and Applied Management students already learn about PM concepts as part of their studies.

Using the PM methodology in learning could prove useful. Each course could be treated as a project, with students split up into teams and with each team member being responsible for a specific deliverable. Even if students are in a team, having individually tracked deliverables for each student can help cut down on friction in blended classes. Each student would then have to receive unique work packages that they would be responsible for and would be marked against. Another benefit of this delivery structure would be an easier and less disruptive move between physical and online-only classes. If classes are treated more like stand-up meetings then it would require monologues from both the lecturer and students. The lecturer will have to go over the requirements, remind students of assignment deadlines and provide clarification on the students' work packages. Students will have to provide updates on their work and go over the challenges they might be facing. This would open a possibility for collaboration where other students, or the lecturer, can step in and provide potential solutions that might help that student. This whole structure would aid in the simulation of a real-world working environment and help students get accustomed to the working conditions they will be facing after graduation."

CONCLUSION

"OPAIC's usage of experiential learning requires constant lecturer-student interaction for it to be beneficial to the student learning experience. Cultivating experiences as a means of delivering education is hard when the learning environment is constantly changing. It seems that institutions have relied on a stable and predictable learning environment, which has become a luxury in a COVID and Post-COVID world.

As a new student, it has been an interesting experience to have gone through, and as a lecturer, it has been very educational. There are a few problematic aspects to theorientation process that I have noticed. The orientation process itself is concise but does not provide all of the support that I think is needed for students new to tertiary environment. Academic workshops have been offered as a substitute but OPAIC should do more to aid students who are just starting their studies. Having a compulsory study skills course as part of orientation, as I did at my previous university would help set up students for success.

Experiential learning on the other hand has been a joy for me to experience and a delivery model that I would recommend to other tertiary institutions that rely on traditional lectures. It does however come with its challenges that have to be overcome. Due to the world dealing with this new normal these challenges have been expanded due to the new normal brought about by COVID 19. A possible way that experiential learning-based courses can overcome these issues is to structure the course to function more like a project, with the lecturer acting more like a project manager. This is an area of interest for future research that could lead to an improved learning model that can better cope with the challenges brought about by a blended learning environment."

Yury Zhukov's journey in Aotearoa started when he decided to pursue of his research interests in deliberative democracy and e-government at the University of Auckland. He has been working in tertiary education alongside other jobs for over fifteen years. Yury has a research Master's degree and is working on his PhD at the moment.

Christiaan Brendenkamp is a researcher currently employed at Otago Polytechnic AIC. From industry research and analysis for consultancy projects, he progressed to an academic career in continental philosophy specialising in psychoanalytic philosophy and philosophy of economics. His strong academic and professional background in research creates collaboration with international partners in many academic disciplines and industry sectors.

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Article

SOFTENING THE EFFECTS OF REDUNDANCY IN THE NEW ZEALAND CASINO GAMING INDUSTRY AS A RESULT OF THE COVID-19 PANDEMIC

Nerissa Tamayo-Reyes and Indrapriya Kularatne

ABSTRACT

When the Coronavirus-19 pandemic hit New Zealand in 2020, the Casino Gaming Industry decided to make redundant a significant number of employees. Though the industry's decision has been financially beneficial, it has led to negative effects such as the difficulty in maintaining its good reputation and preventing employees' anxiety as there was no work security for them. Redundancy has also affected its ability to attract future employees. Solutions such as training and development, 360-degree feedback, employee referral programmes, rewards and recognition have been proven by other industries to increase productivity and decrease turnover. This is a literature-based investigation and criteria have been utilised to determine amongst five solutions, the most feasible and most suitable for New Zealand Casino Gaming Industry. Using decision criteria based on cost and business impact, employee referral programmes and recognition provided the lowest cost and the most effective business impact during the crisis period.

INTRODUCTION

The Casino Gaming Industry (CGI) is a billion-dollar industry and continues to grow significantly during the past decades in New Zealand. CGI's venue for its business is commonly referred to as a casino where spectrums of games purely based on chance are played, and various types of gambling activities are carried out. The gambling activities include an array of games such as online gaming, card room gaming, lotteries, race and sports wagering, and other gaming, such as bingo and raffles (Allied Market Research, 2021). Usually, these venues are built and operated near luxury hotels, areas with busy restaurants and upmarket retail shopping centres where people with high incomes are attracted (Allied Market Research, 2021). Only a few multimillion organisations in New Zealand control the CGI. When the Coronavirus-19 (COVID-19) pandemic hit the country in 2020, a significant number of employees in CGI lost their jobs around the country. For example, nearly 200 employees faced redundancy in one organisation located in Auckland (Nadkarni, 2020a). Though the decision to terminate tenured employees' contracts brought positive financial results to the industry, it also led to decreased organisational commitment, job dissatisfaction, job insecurity and turnover (Antoneje & Antoncic, 2011). The decision to make employees redundant has affected CGI's reputation as to keeping employees engaged. This literature-based investigation aims to provide a feasible and most appropriate plan for the CGI to boost employees' satisfaction that was lost during the 2020 COVID-19 pandemic due to employee redundancy. This report is divided into three parts. The first part discussing CGI's operation and the effects of the issue on redundancy, the second part analyses possible solutions to the identified issues, and the last part evaluates solutions that are recommended to be implemented to soften the impact of further COVID-19 pandemics.

ABOUT THE INDUSTRY

Gaming culture has been intensified especially during the last two years and 79% of the gaming population are from the age group of 34 years and over (Zhou et al., 2021). In 2019, SkyCity Entertainment group was one of the companies which increased its earnings by 12.5% to $2.3 million, enabling the company with strong cash flows to expand other projects (CGI Inc. Annual Report, 2019). In 2019, Jacinda Arden, Prime Minister of New Zealand, banned gaming advertising (Kay, 2019). The industry has been proactive in addressing the issue of this ban (Gibson, 2020). However, this decision may pave the way for more online casinos. CGI's business goals are focused on improving its operating performance through investment in information, communication, and technology (ICT) infrastructure (Nadkarni, 2020). The CGI has not given significant attention to how to develop the skills of its employees to keep abreast with the direction towards online casinos (Gibson, 2020). Gibson reported that with a large amount of capital invested in ICT infrastructure, profits may be delayed, or even subject to New Zealand taxes.

In early 2020, the spread of COVID-19 led to lockdowns of businesses (Gibson, 2020). On the contrary, when most of the businesses were reporting decreased sales and profits, a 9% increase in online gambling was reported in the New Zealand Health and Lifestyle Survey (Ministry of Health, 2019). Therefore, propelling the direction of the industry towards online gaming was found to be favourable in terms of profit, but on the other hand, physical casinos were negatively affected (Nadkarni, 2020).

METHODOLOGY

This investigation is desk research and the information and data used were extracted from already published literature. This method is cost-effective since all information and data were collected from published resources. On the other hand, this investigation could be considered as an exploratory study, because there are not many resources available in the area of CGI employee redundancy especially during a pandemic

HUMAN RESOURCE ISSUES IN CASINO GAMING INDUSTRY

In any organisation, the most important developmental goals for employees are to grow, be empowered, and be viewed by employees as a great place to work. This is important as employees' positive perceptions towards work can lead to attracting high performing applicants and to the promotion of the organisation's positive outlook on the industry's reputation (Katsaridou & Lemke, 2020). A self-assessment survey amongst directors of one casino organisation located in Auckland was conducted to create a concrete plan to achieve the above goals (CGI Inc. Annual Report, 2019). The results of the survey showed that human resources were considered second to the lowest competency that the directors held. The poor human resource competencies of CGI Directors' and the COVID-19 global pandemic have forced management to reduce their costs by making redundant a significant number of employees (Flaws, 2020). The following sections discuss the nature of redundancy and the effects of redundancy on the CGI.

Nature of redundancy

According to Graeme Stephens, Chief Executive of the CGI Entertainment Group, the organisation had been facing an almost $90 million loss in revenue every month, due to costs in utilities, lease payments and labour (Nadkarni, 2020b). In May 2020, the organisation downscaled and made redundant 22.5% of its employees (mostly casino dealers and restaurant staff) (Flaws, 2020). Redundancy is a way of terminating an employee's job because either the work or the role is of no further use to the current direction of the organisation (Brougham & Haar, 2017). According to the New Zealand Ministry of Business Innovation and Employment (2020), organisations are required to follow a just process should a decision be made to dismiss an employee. Research shows that after employees have witnessed redundancies, overall performance decreased, efficiency plummeted, absenteeism increased and engagement in the workplace decreased, all leading to unmanaged attrition (Hussain et al., 2019). Additionally, employees may lose trust in their organisation because of the fear that they may lose their jobs as well (Parvin & Kabir, 2011). Redundancy damages the psychological contract between the remaining employees and the organisation (Robbins, 2019). Next, the effects of redundancy on CGI employees in the New Zealand context is discussed.

Effects of Redundancy

The effect of redundancy is analysed and discussed under three topics: difficultly in maintaining a good of corporate reputation, the lack of job security among employees, and the inability to attract future employees.

Difficulty in Maintaining Positive Corporate Reputation

Based on a survey on corporate reputation conducted for a major organisation in the CGI by Indeed (2021), their overall rating is 3.8 out of 5. This survey was conducted with CGI employees and based on their satisfaction with work-life balance, pay, benefits, job security and advancement, management and culture (Indeed, 2021). Corporate reputation is the total esteem in which an organisation is held by both internal and external stakeholders based on its previous activity that affects future behaviour (Matuleviciene & Stravinskiene, 2015). Already published evidence suggests that negative a corporate reputation impacts on the cost of hiring and may even lead to an employee retention crisis (Jung & Seock, 2016). If the management of CGI fails to pay proper attention to this managerial issue, it would negatively impact both future and current employees in the industry (Radio New Zealand, 2020). According to the survey conducted by Career Builder, 71% of labourers will not apply to join a company with a negative reputation (Jung & Seock, 2016). Moreover, this negative reputation could push an organisation's best employees away, creating a talent vacuum (Lee, 2012). Based on interpretations made by Alon & Vidovic (2015) if the CGI did not manage its employee retention, it could cost the industry 21% more in salaries. The CGI's objective in terminating employees was to reduce organisational costs; however, the effects of this decision may have impacts on the long-term sustainability of the business.

Lack of Job Security

To further reduce the operational cost, Senior Executives of a major organisation in CGI reduced their pay by 20% to 40% and directors' pay by 50%, and the rest of the employees were asked to take 80% of their base pay and take the New Zealand government's wage subsidy (Radio New Zealand (RNZ), 2020; Treen, 2020). Such a decision to decrease the employees' pay may have impacted negatively on employee's job security. Based on a study conducted by Cullen & Perez-Truglia, (2018), a decrease in the salaries of employees caused them to spend fewer hours in the office and increased absence, and the majority consider leaving the organisation. This is supported by 'Maslow's Hierarchy of Needs', stating that humans have five levels of needs that are required to be met based on individual expectations (Naderpajouh et al., 2020). Based on Maslow's theory, the second basic need to be fulfilled is safety, and job security plays an important role in this context (Lester, 2013). If employees feel a lack of job security this could lead to increased anxiety, depression and to a lack of trust in the organisation.

The CGI needed to investigate how each organisation provides job security to make their employees feel secured. According to a study by Edwin Locke, keeping employees feeling safe and secure creates a positive work environment boosting sales, meeting organisational goals while maintaining loyalty to the organisation (Pomerance et al., 2020).

Inability to Attract Future Employees

In October 2020, one of the leading CGI companies in New Zealand finished refurbishing its Auckland Very Important Persons (VIP) area by doubling the size of the previous gaming area (Morrison, 2020). This expansion itself resulted in a demand for more employees such as VIP hosts and food and beverage waiters (Opportunities in CGI, 2020). Due to the previous redundancy process, this organisation has already lost their experienced VIP hosts and waiters. According to Organisation Science magazine (United States of America (USA)), each employee redundancy may cost an organisation about $5000 (US$3500) in both direct and indirect turnover costs (Mueller, 2020). Based on the present expansion, the VIP area in Auckland needs more employees but they are facing the challenge of recruiting competent employees with experience (Mueller, 2020). The inability to attract competent employees has had an adverse effect in attracting new and returning customers because they expect quality service from experienced staff (Markovich, 2019).

Overall, CGI is facing several effects from the removal of their experienced tenured employees. The effects of redundancy have resulted in difficulties in maintaining a positive corporate reputation, a lack of job security for the remaining employees, and an inability in attracting future employees. On the other hand, the industry has invested and opened few new facilities around the country, and they need competent, reliable, and experienced employees. Considering the current COVID-19 pandemic situation and high demand for experienced employees, the implementation of strong training and development, 360-degree feedback, employee referral programmes, rewards and recognition are recommended to soften the effects of redundancy in CGI.

CRITICAL EVALUATION OF SOLUTIONS RECOMMENDED TO SOFTEN THE EFFECTS OF REDUNDANCY

There are five solutions identified to soften the effects of redundancy in CGI. This section analyses both the advantages and disadvantages of each solution and aims to show how each solution may contribute to softening the effects of redundancy.

Training and Development

Training is considered one of the most significant strategies to empower employees (Sinha & Sengupta, 2020). It provides a way to develop knowledge and skills for both performing and underperforming employees, so targets set can be met. In a study by Garg (2017), training influences the motivation of employees and affects how individuals can be proficient in their roles. Garg reported that the correlation between training and motivation was further reinforced by Herzberg's theory of motivators and hygiene factors. This theory dictates training which influence motivation and affect achievement (Schunk & DiBenedetto, 2020). According to Elnaga and Imran (2014), appropriate training developed employees' knowledge and skills, connecting the difference between present job output and target outcome. The CGI may find training advantageous, as it may improve employee motivation to be at their best at work. Thus, this could be a favourable result as far as this industry's reputation and the efficiency of employees. Training may lead to an increase in motivation having a significant correlation with productivity (Zhao & Kularatne, 2020). Success in training may stimulate employees to become more efficient and more capable in their roles for future positions within the organisation.

Though developing an organisation's most valuable asset employees, the training and development entails time and cost (Masalimova et al., 2016). Currently, some organisations in the CGI have online training or computer-based training (CBT), but this type of training may be ineffective with employees who have low motivation (Hiranrithikorn, 2019). This is reflected in the industry's 35% completion rates of required online training (CGI inc. Annual Report, 2019).

Considering all the above facts, the current training programmes are ineffective. The best solution would be creating face-to-face training sessions; however, these would require costs to run in-house or via external trainers and organisations will need to pay for their employees' hours of training, instead of working.

360-Degree Feedback

The CGI may utilise a feedback mechanism, such as 360-degree feedback which encompasses various responders (participants). Most organisations in the CGI have no feedback mechanisms available to employees (Fleenor & Chappelow, 2020). So, the opportunity to get formal feedback on the genuine performance of each employee is not evident. The 360 degree feedback mechanism is as multi-rater and is said to be the most complete evaluation where all parties are connected to the performance of an employee and given a voice to provide feedback anonymously (Lepsinger & Lucia, 2009). This form of mechanism overrides “leaders’ blind spots”, as ratings come from employess with different points of view who have close contact with the employees’ job performance (Chandana & Easow, 2015). The 360-degree feedback method uses a survey that has a list of behavioural-based strengths and weaknesses recognised by employees, supervisors, co-workers and managers, and occasionally even clients (Lepsinger & Lucia, 2009). The 3 system gives a structure and a detailed view of the performance of an employee and consequently it can consume a great deal of time (London & Beatty, 2006). The CGI essentially would require adjusting its scheduling and capacity planning to make 360-degree feedback effective (London & Beatty, 2006). The time needed to take employees away from work to provide this feedback would entail an additional cost to the organisation.

According to Chandhana & Easow (2015), the world’s biggest and highest ranked casinos use 360-degree feedback with middle management, including Bellagio in Las Vegas (USA), the Venetian in Macao (China), Monte Carlo Casino in Monte Carlo (Monaco), Casino Baden-Baden in Baden-Baden (Germany) and Marina Bay Sands (Singapore) (CGI Inc. Annual Report, 2019). Chandhana & Easow reported that the study conducted by success in implementing 360-degree feedback is based on the effectiveness of training given to each of the anonymous respondents, regarding the procedures, and how each item should or should not be translated into the employee’s overall performance.

The focus of the 360-degree feedback should be on the employee’s strengths, not on weaknesses, as this could lead to resentment among the respondent and the assessee (Bracken & Rose, 2011). Failure to provide proper training in giving feedback may result in erroneous and unreliable results. The 360-degree feedback system requires appropriate training before implementation.

Employee Referral Programme

Unlike training and development and 360-degree feedback, the employee referral programme is a more cost-effective strategy to grow a highly skilled workforce (Simmons, 2020). The expected expansion of the CGI will require skilled employees (Morrison, 2020). In general, this industry utilises advertisements, third party recruitment and website recruitment (Rahman et al. (2014) reported that social media was also been used as a recruitment method. However, it would appear that most of these avenues have not captured experienced employees (Stockman et al., 2017). An employee referral programme motivates employees to recognise and to choose employee aspirants within their public network (Van Hoye, 2013). It is also the least costly method of staffing, as it does not require much cost to pay a third party to hire a suitable external candidate (Löjdqvist & Nilsson, 2016). The employee referral programme has been shown to be more efficient when it came to providing a better offer to the candidate, and higher acceptance rate and lower attrition rate, than online recruitment or direct application and advertisement (Mani, 2012). Thus, the CGI could promote an employee referral programme by giving a monetary bonus or incentive to the referee, should the candidate be accepted for the position (Schlachter & Pieper, 2019). On the other hand, the disadvantage of the employee referral programme is the risk of personal conflicts, such issues arise among employees (Van Hoye, 2013) For this programme to be effective, the CGI should use various selection tools within the pool of candidates to recruit appropriate employees for the position (Fernandez & Castilla, 2017).

Employee loyalty is considered one component of an organisation’s success (Khan et al., 2020). One employee referral programme demonstrated employees’ loyalty as it concretely showed positive effects; amongst their employees, there was a desire to endorse the organisation to other prospective employees (Antoncic & Antoncic, 2011). This was reinforced by McClelland’s Theory of Needs (1965), stating individuals are motivated by three basic drivers: achievement, affiliation and power (Osemeke & Adegboyega, 2017). Affiliation indicates a need to have a close friendly relationship with others (Royle & Hall, 2012). So, referring an employee from your network may create an affiliation within the workplace and this may increase the employee’s motivation. McClelland’s Theory of Needs was reinforced by Winter and Barenbaum (1985), which indicated that achievement, affiliation and power are not the only drivers for motivation, but also are considered essential human aims. Results from the study of Royle and Hall (2012) demonstrated that there was a correlation between McClelland's Theory of Needs and a person's accountability, wherein an employee's motivation to complete assigned tasks was anchored to the affiliation created. Thus, each employee was accountable for the action of the other and this was highly based on the effectiveness of the employee referral programme (Jayanthi, 2017). Employee referral may affect the motivation level of employees, both intrinsically and extrinsically (Kuvaas et al., 2017); intrinsic motivation would be actions that led to internal rewards, such as independence and a sense of responsibility; whereas extrinsic motivation was an action led by external rewards, such as money, gifts, and travel. (Sansone & Harackiewicz, 2000).

Providing travel incentives may intrinsically motivate employees, as it provides a sense of responsibility for their preferred candidate to become successful in the recruitment process. It also gives extrinsic motivation for the employee to refer applicants knowing that a tangible reward might be expected. The CGI could replicate the success of other employee referral programmes by providing travel opportunities to employees. During the COVID-19 pandemic, the CGI could concentrate on providing travel incentives within New Zealand, not only be beneficial to the industry and its employees but would also to the national tourism industry (Kay, 2019).

It is vital for organisations to monitor the motivation level of employees regularly and to maintain this enough to gauge employee engagement (Garg, 2017). Previous studies have indicated that employees who showed a high level of commitment to the organisation were those who encouraged others to join their organisation (Edward, 2000; Mangkunegara & Octorend 2015). There was also a correlation between employees' emotional attachment to the organisation, and a high level of intrinsic motivation to add value to the organisation (Chen, 2019). Employees must be valued particularly those who exhibit a genuine commitment to their work and the organisation (Khan, et al, 2020).

Rewards

Rewards are tangible benefits received by employees in the attainment of goals based on job performance (Raj et al., 2018). According to the Harvard Business Review, 78% of employees were happier in their work after being rewarded (Robbins, 2019). Research indicated that when employees were happy, they contributed to higher morale and were at least 20% more productive than previously (Tohidi, 2011). When employees' morale was high, employees saw greater value in staying loyal to the organisation (Wati et al., 2020). Turnover however is lower in organisations that provide rewards to employees but there it has a greater opportunity to fully succeed in attaining revenue targets and company goals (Raj et al, 2018). Organisations in the hospitality industry, such as Marriott, rewarded employees with healthcare benefits and free weekend hotel stays for life (Marriott International Benefits, 2020) using rewards as a tool to keep employees engaged and this was highly correlated to an increase in profits (Salah, 2016).

Rewards may vary from fringe benefits to an increase in wages, bonuses, profit sharing, pension plans, paid leave, purchase discounts, and to even occupying a more attractive corner office or having an allocated parking space (Siwale et al., 2020). Currently, Skycity, rewards for their employees ranges from subsidised dining facilities, discounted car parking, health insurance benefits and employee discounts in all of the organisations' hotels, restaurants and benefits with third-party suppliers.

However, the CGI needs to consider certain disadvantages in using tangible extrinsic rewards. These may result in increased operational costs since they require a certain amount of expenditure to reward an employee. Monetary reward may lose its value in the long term as it could lose the value of appreciation in employees and performance, which could be dependent on expected rewards (Tohidi, 2011).

Recognition

Employee recognition is the act of acknowledging an exemplary performance (Bradler et al., 2016). Rewards and recognition are usually joined together; rewards are tangible and connected to business goals; whereas recognition is intangible and may be given as often as possible (Ghosh et al., 2016). Recognition is essential in boosting the morale of the employee as it reinforces behaviour, practices or activities that may contribute to positive organisational results (Lim & Xavier, 2015).

The types of recognition can range from bonuses to something non-monetary such as, written or verbal praise or a celebration such as an Employee Appreciation Day, or the acknowledgement work of anniversaries (Lim & Xavier, 2015). However, most organisations in the CGI are limited as to monetary rewards and currently, most do not have effective recognition programmes for their employees. According to organisations who do not have an employee recognition programme, this opens them up to a 39% employee turnover and in fact may decrease employee engagement by 39% (Amoatemaa & Kyeremeh, 2016). So, successful casinos, like Metro-Goldwyn-Mayer (MGM) Grand, utilise employee recognition programme to the fullest extend (MGM Resorts, 2021).

MGM Grand, the biggest casino in Las Vegas was awarded the "World's Most Admired Company", because of its employee recognition programme (Robbins, 2019). This programme has increased annual revenue from US$ 714 Million in 2018 to US$1Billion in 2019 (Ghosh et al, 2016). It was not only financially beneficial for the organisation, but it also bred a positive workplace culture and thus increased employee motivation (Cavero-Rubio et al., 2019). MGM's employee engagement increased by 94% and job satisfaction rates grew to 97% (MGM Resort, 2020). According to a study conducted by Lindner (1998) employee motivation brings creativity and the high level of commitment needed to succeed in a fast-changing workplace (Lazaroiu, 2015). The positive result of recognition resonates with Herzberg's theory, that the presence of motivating factors such as recognition increases the productivity of an employee (Malik & Naeem, 2013).

However, if recognition is based on monetary incentives alone, it could bring competition that can lead to conflict amongst employees (Elnaga & Imran, 2014). An efficient recognition programmes should reinforce employee motivation and it would only be effective if honest and individualised (Zojceska, 2019). Should the CGI use an employee recognition programme, authenticity is a key factor for it to benefit both the organisation and its employees.

RECOMMENDATIONS

The five solutions to soften redundancy such as training, 360-degree feedback, employee referral programmes, rewards and recognition have their own advantages and disadvantages. With the current financial situation of the CGI solutions that could be cost efficient such as a recognition and an employee referral programme, would be most feasible. The following section discusses how recognition and employee referral programmes could be the best solutions for the CGI to soften the effects of redundancy. Decision-criterion, which refer to guidelines used to make sound business decisions, were used to determine which would be the most appropriate solution for the CGI. The decision-criterion used for this evaluation is cost, and its impact on the business.

Cost

The huge monthly loss in revenue in the CGI is the main reason why the industry had to make employees redundant (Hussain et al, 2019). A solution that is cost-efficient yet effective would be the most suitable way ahead. Organisations across industries spend $1252 (about US$870) per employee per year in training and development (Petters, 2019). If an organisation in the CGI had 6,000 employees in 2019, they may have incurred approximately $7.5 million on training and development (Nadkarni, 2020b). Though training and development may soften the effects of redundancy; the cost to the organisation is not a financially compelling reason for the CGI to use this solution.

Compared with training and development, the CGI may need 360-degree feedback survey software to capture responses from various respondents who work on different shifts. The average cost of 360-degree feedback survey software is up to $1057.53 and $133.95 per person after installation (Fleenor et al., 2020). So, if a New Zealand organisation used a 360-degree feedback system it would spend roughly $6.3 million in its first year, with an ongoing cost of $0.8 million per year. This is 5.3% less expensive than training and development in the first year, and a 90% saving for all subsequent years. According to the Payscale website, the average salary of an employee in the CGI is $64,000 per year (Payscale, 2021). This would mean that the cost of 360 degrees feedback survey software for the first year would be equivalent to the annual salary of 110 employees. The cost for each subsequent year is equivalent to 12 employees' annual salaries. When the COVID-19 pandemic hit the country, more than 200 employees of the CGI faced redundancy in one organisation alone and, the organisation reduced its labour cost significantly (Nadkarni, 2020a). More than the amount of money mentioned above could have been saved by implementing 360-degree feedback survey software.

Providing rewards to employees on the other hand would cost an average of at least 1% of an employer's annual salaries (Salah, 2016). Considering that the average salary of an employee in the CGI is $64,000 per year, the cost of rewards may be equated millions of dollars. Providing rewards can be extremely beneficial to employees but employing this solution could harm the organisation's budget. Therefore, during the COVID-19 pandemic, rewards may not have been a feasible solution.

Different organisations implemented their employee referral programmes using different methods for example, monetary incentives as bonuses, verbal appreciation, displaying referee names on a wall of fame, letters of appreciation, gift vouchers, the use of organisational facilities as a guest and discounts on products or services (Jayanthi, 2017). As Löjdqvist and Nilsson (2016) stated, this is the least costly type of incentive in terms of employing new staff because there are no hiring costs such as advertising, or payments for recruitment agencies. The negative aspect of this programme would be the risk of personal conflicts among employees (Löjdqvist & Nilsson, 2016). This could be managed through a strong effective training and development programme (Schlachter & Pieper, 2019).

The pandemic has put the industry to have a limited budget, and thus becomes a primary factor to consider finding a solution, would be a good option. Zojceska (2019) reported that about 70% of United States of America's organisations rewarded their employees cash prizes between US$1,000 to US$5,000 (approximately NZ$1,400 to NZ$7,000) for recommending a successful candidate. An employee referral programme would be the most cost-effective option to recruit new employees (Zojceska, 2019). To reinforce a positive corporate reputation, building job security and establishing the ability to attract talent in the future, on top of a employee referral programme would be cost effective options. Therefore, considering all the costs of the five solutions discussed above, the employee referral programme and recognition, were not only effective but the most cost-efficient methods in relation to the CGI.

Business Impact

Business impact provides insights for the organisation to prioritise and allocate the correct resources to meet objectives (Fernando, 2020). By analysing the impact, organisations can see the value in an initiative (Meng & Berger, 2012). The impact of each solution above was based on productivity and turnover. According to the Harvard Business Review, productivity leads to the meeting of organisational goals and provides a positive reputation, making it a desirable organisation for future candidates (Garton & Mankins, 2020). The same authors stated that a decreased turnover was directly correlated to job security within an organisation. Productivity and turnover can be used as measurements to understand the effectiveness of each solution provided above. This is further supported by Stuebs and Sun (2010), that the customers' perception of an organisation is based on its productivity and the efficiency of its employees.

Based on the percentages of increased productivity and decreased turnover, employee referral programmes and recognition would appear to have the highest impact. Considering the decision-criterion above, recognition and employee referral programmes are the least expensive, easiest to implement and are the solutions that provide the most return on investment. Recognition schemes are recommended as a tool to soften the effects of redundancy (Robbins, 2019). An increased motivation has a direct effect on performance and there is a direct link between increased motivation to create a sense of security in an organisation (Parvin & Kabir, 2011). Recognition schemes such as verbal praise and walls of fame would be effective in addressing the issues that the CGI has in terms of redundancy.

Another recommendation is the use of the employee referral programmes which have been proven to be effective in attracting competent employees (Tikhonov, 2019). In employee referral programmes organisations can re-establish their credibility by 30% since referral is done by employees who have personal experience in the organisation (Keeling & McGoldrick, 2013). This builds a positive corporate reputation among the industry as it builds a culture of promoting the organisation to the employees' networks (Jayanthi, 2017)

CONCLUSIONS

The COVID-19 pandemic in 2020 led the CGI in New Zealand to terminate tenured employees. This decision resulted in negative effects such as damage to the CGI's positive reputation, job insecurity among remaining employees and discouraged competent future candidate to apply for positions. Based on the scale of effectiveness of other organisations which used training and development, 360-degree feedback, employee referral programmes, reward and recognition; the effects of redundancy can be softened. Each solution can contribute to establishing a positive reputation for the CGI, improving job security and attracting future qualified employees. However, the most realistic solutions recommended would be the employee referral programme and recognition. Both would suit the fast-paced environment of the CGIs in softening the effect of redundancy as a result of the COVID-19 pandemic and are most cost-efficient.

Nerissa Tamayo-Reyes is a graduate of Master of Applied Management (Business Management) from Otago Polytechnic Auckland International Campus in Auckland, New Zealand. A licensed teacher in the Philippines, she was the author of HTML Basics. She has more than 20 years experience in the training industry. She was a Client Services Manager in Accenture in the Philippines and is currently working in the New Zealand casino gaming industry.

Indrapriya Kularatne is a Principal Lecturer at Otago Polytechnic Auckland International Campus New Zealand. He has obtained his Ph.D. from the University of Auckland, Master of Management from the Massey University and Master of Science from the University of Sri Jayawardenepura (Sri Lanka). His research focuses on sustainability, environmental management, employability skills, project management and corporate social responsibility.

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Article

CHANGE OF CUSTOMER BEHAVIOUR DURING THE COVID-19 PANDEMIC: NEW ZEALAND SUPERMARKET RETAIL INDUSTRY

Wentao Tang and Indrapriya Kularatne

ABSTRACT

This investigation aims to analyse problems and growth opportunities caused by various changes in customer behaviour during COVID-19 for the New Zealand supermarket retail industry and the solutions provided to improve customer satisfaction and experience, especially in a panic buying situation. The background of changes in customer behaviour during the pandemic period was analysed and identified key challenges and opportunities faced by the industry. The information and data from this investigation was collected from already published resources. Different solutions and strategies to deal with these key problems were determined based on pricing and product portfolio strategy, the agility and resilience of the supply chain, remote expert service and security system technology, and the development of healthy and sustainable products. Recommendations are included in establishing long-term collaborative relationships with local suppliers, cultivating the digital adaptability of employees, making available organic food to customers, and developing good sustainable practices for the supermarket retail industry.

Keywords: COVID-19, panic buying, retail industry, customer behaviour, supermarket, sustainability.

INTRODUCTION

After arriving in New Zealand in early 2020, COVID-19 quickly spread across the country. The highly infectious and contagious nature of the virus damaged the normal purchasing trend and the retail shopping behaviour of customers (Kim, 2020). Supermarket retailers needed to quickly adapt to the impact of customer demand, including panic buying and the change of various commodity purchase methods. Therefore, changes in the external environment and crisis events were part of the problems faced by the supermarket retail industry, which must be foreseen, prepared for, alleviated, and dealt with (Nocera & Gardoni, 2019).

The purpose of this investigation was to evaluate changes in consumer behaviour in the supermarket retail industry in New Zealand during COVID-19 to identify the core management issues and challenges. For this investigation, the supermarket retail industry in New Zealand was selected as a case study. The current status, situation and issues of the supermarket retail industry during the pandemic period are critically discussed, and potential growth opportunities are determined. Additionally, different possible strategies and solutions based on evidence are discussed. Finally, for the core problems and challenges faced by the supermarket retail industry, this investigation critically evaluated the solutions giving further practical suggestions to improve customer satisfaction and experience.

METHODOLOGY

This investigation is based on secondary data available in published literature. The validity of a literature-based research is dependent on the collection of relevant authentic contemporary information. The majority of sources used in this investigation are not only current but were also published in the last five years. All information and data used in was extracted from peer-reviewed published sources to ensure the reliability of the findings and conclusions of the investigation. No primary data was collected.

THE CONTEXT OF CHANGE OF CUSTOMER BEHAVIOUR DURING COVID-19

There is no doubt that different types of crises and disasters may affect consumer behaviour. During the COVID-19 crisis, consumers experienced changes in the availability of goods, services and facilities compared to the pre-COVID 19 period and this changed consumer behaviour (Pantano et al., 2020). This section analyses several important factors that influenced consumer behaviour during the COVID-19 pandemic period in the supermarket retail industry, to investigate the industry's managerial problems and future development opportunities.

Behaviour Changes Due to New Zealand Government Rules and Regulations

After the outbreak of the COVID-19 pandemic in 2020, the retail industry underwent great changes and faced numerous challenges. During the lockdown in New Zealand, the only open retail sector was supermarkets. In the meantime, the New Zealand Government introduced some regulations to be implemented by supermarkets to reduce panic and minimise the chance of COVID-19 transmission during shopping (New Zealand Government, 2020).

Change in Government Rules and Regulations

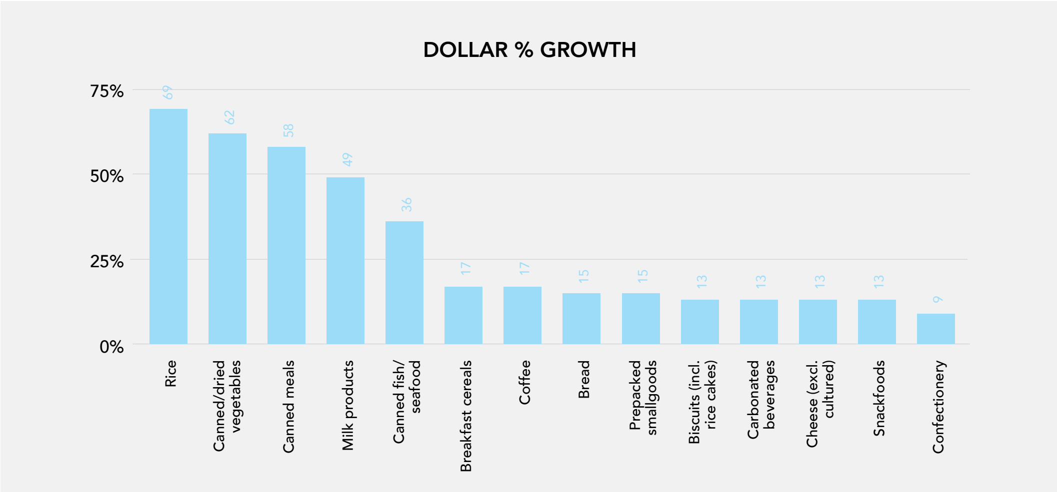
First of all, the New Zealand Government stipulated that all customers, must keep a physical distance of 1.5m to 2m from other customers and employees (New Zealand Government, 2020), as a result, customers were required to shop on their own. Once a supermarket reached its maximum safe capacity, shoppers could only enter and exit the supermarket in a one-in-one-out method, and floor signs indicated that customers should keep a physical distance. In addition, customers must pack their own shopping bags, and the number of checkout operations was reduced so that customers could maintain a physical distance between employees (New World, 2020).

The changes in the shopping process introduced by the government created limited personal mobility and less personal contact, giving customers fewer opportunities to interact with supermarket staff. This process has made customers feel shopping pressure to decrease the contact time with others in the supermarket. Before the COVID-19 pandemic outbreak, most customers with selected items to buy went shopping with a shopping list (Martin-Neuninger & Ruby, 2020). However, because of shopping time constraints, customers did not have sufficient decision-making time to cope with product information in supermarkets and therefore, they relied more on heuristic methods such as brand name, product price, image, colour, and labels to select products (Bialkova et al., 2020). Bialkova reported that during the COVID-19 shopping conditions, the use of these heuristic methods increased, and customers tended to select high-quality and high-profile brands instead of low profile and low-quality products.

Behaviour Changes Due to Panic Buying

After customers' perception of the disaster, their shopping habits and behaviours changed. Because customers are generally worried about the shortage of product supply or the expected sharp rise of product prices, they bought a larger number of products or a wide range of products and this behaviour was called panic buying (Nicola et al., 2020). According to Figure 1 below, in the field of food retail, during the COVID-19 pandemic period, customer demand for rice surged the most (New Zealand Herald, 2020). Based on Figure 1, compared with the previous year, rice sales increased by 69%, sales of canned and dried vegetables increased by 62%, canned meals by 58%, milk products by 49%, and canned fish and seafood by 36%.

Figure 1. Fastest-Growing Food Items during the Lockdown



NOTE. Adapted from New Zealand Herald (2020).

As illustrated in Figure 2, in non-food products, sales of toilet tissues increased by 87% compared with the previous year. In contrast, household cleaners and facial tissues increased by 76% and 67%, respectively. This data confirmed that customers were worried about shortages caused by the COVID-19 pandemic, triggering panic buying. From the perspective of the supermarket retail industry, panic buying usually led to purchasing a large number of necessities, such as cleaning and hygiene products from suppliers (Keane & Neal, 2020). This situation created limits or even eliminated the food supply, resulting in adverse effects, such as increased prices, waste, shortages, excessive consumption, and uneven distribution of products (Hassen et al., 2020). The most impacted vulnerable customer groups were the elderly and the poor because they could not access products as usual (Basari et al., 2020). In addition, some customers stored food and purchased more goods each time to reduce store visits, thus restricting their perceived risk of exposure to COVID-19 (Cranfield, 2020). This behaviour change was due to social isolation directives and changes in the future and uncertainty increased customer's fear and anxiety and affected their commodity purchase patterns and food consumption (Niles et al., 2020).

Figure 2. Fastest-Growing Non-Food Items during the Lockdown

diagram missing

NOTES. Adapted from New Zealand Herald (2020).

Retail suppliers in New Zealand imposed restrictions to try to reduce price increases and reduce the impact of panic buying around basic goods (Martin-Neuninger & Ruby, 2020). For example, supermarket retailers limited the number of items purchased during each shopping visit, including toilet paper, minced meat, eggs, milk, pasta, disinfectant, and soap. Additionally, retailers reduced the opening hours of supermarkets and required customers to continue shopping as before the COVID-19 lockdown to resist impulse buying (Martin-Neuninger & Ruby, 2020). Nevertheless, these policies usually had the reverse effect because the sudden supply shortage further increased public fear and led to highly unreasonable hoarding and preparation activities (Keane & Neal, 2020). Therefore, panic buying hindered the function of normal supermarket supply chains and posed a great challenge to the supermarket retail industry (Hobbs, 2020).

Behaviour Changes Due to the Impact on the Unemployment Rate

COVID-19 is more than just a health crisis, it has led to a serious global economic and financial recession, and it also increased unemployment and poverty around the world (Hassen et al., 2020). According to Statistics New Zealand (2020a), during COVID-19 pandemic in June 2020, the New Zealand unemployment rate reached 4.0%, the number of people without a job increased by 37,000, the number of employed persons decreased by 11,000. Working hours dropped to a record 10.3%, which led to a significant decrease in personal and family incomes (Cranfield, 2020). Meanwhile, Statistics New Zealand (2020b) pointed out that with the reduction of COVID-19 alarm levels, the unemployment rate would gradually increase, which means that New Zealand would still face a serious unemployment problem in the long term. Knowledge of income continuity is essential to comprehend how customers responded to the COVID-19 pandemic and the impact of changes in their consumption behaviour, thereby affecting the amount of food consumed and the kind of goods purchased (Cranfield, 2020). For example, during the COVID-19 pandemic, customers tended to focus first on meeting basic physiological needs, thus shifting spending to a large consumption of necessities, such as food and cleaning products, and reducing non-essential and durable goods, such as household appliances (Forbes, 2017). In addition, customers paid more attention to the price of goods, and they expressed their preference for low-cost retailers rather than shifting loyalty to their preferred supermarket retailers and turned more to the demand for value for money. For example, sizeable multi packaging may provide the best value, but it may not be affordable for cash strapped customers because they were forced to buy products in smaller packages, and brand loyalty in various categories declined (Basen, 2014).

Behaviour Changes Due to Increase in Online Shopping

Due to the perceived risk of physical shopping in supermarkets and the fear of contracting COVID-19, customers' purchase mode rapidly shifted to online shopping (Deloitte, 2020). Statistics New Zealand (2020a) pointed out that, during the COVID-19 lockdown, retail sales for supermarkets and grocery stores had strong growth compared with other retail sectors, benefiting from the strong demand for online business, providing a wide range of products and door-to-door delivery advantages. In response to the COVID-19 pandemic, digital technology played a vital role in maintaining daily life (Schilirò, 2020). Hence, by accelerating the maturity of online data technology, the COVID-19 pandemic may have become a turning point for online retail in New Zealand supermarkets, providing better convenience and experience for customer (Kim, 2020). For instance, supermarket retailers launched the first nationwide e-store supermarket. Therefore, the online supermarket retail website service and ease of use became a new focus of customer attention (Countdown, 2020a).

In addition, CERT NZ indicated that the cybercrime of online shopping increased 42% over the same period last year during COVID-19 (Tom, 2020). According to Hossain et al., (2018), cyber security, customer information security, and protection significantly impacted customer online shopping decisions. Based on the same authors, during this period, customers were concerned about the protection of their personal data and information, especially the fraud and abuse of credit and debit cards (Hossain et al., 2018). To succeed in online shopping, supermarket retailers had to keep the security, privacy, trust, and reliability of online customers (Neger & Uddin, 2020).

Customers' Focus on Healthy Living

The COVID-19 pandemic changed people's lifestyles and eating habits, shifting customer behaviour to healthier and more sustainable lifestyles, and eating habits (Cohen, 2020). According to Kuijpers et al. (2020), customers in New Zealand were more concerned about their health during the COVID-19 pandemic period. Evidence suggests that consumption behaviour appeared to favour healthy food and dietary supplements to enhance their immune systems, which led to increased consumption of supermarket retail products such as vegetable food, fruit, dairy products, and bottled water, while the consumption of alcohol and snacks decreased (Kuijpers et al., 2020). The reason was that the consumption of fruits, vegetables, and whole grains, in addition to the limited intake of saturated fat, trans fat, sugar and salt, could also have helped to maintain good health and prevent diseases (Borsellino et al., 2020). However, due to panic buying, a great quantity of food hoarding activities led to food waste (Hassen et al., 2020). Therefore, some customers focused on reducing food waste to improve food security (Shafiee-Jood & Cai, 2016). Therefore, customers attached greater importance to health and provided an attractive way for sustainable practices. Supermarket retailers should strategically take advantage of this opportunity to meet the needs of customers, in particular those searching to buy healthier and more sustainable foods.

Based on the above discussion on several factors affecting customer behaviour during the COVID-19 pandemic, four key managerial issues for the supermarket retail industry were identified:

– Due to the New Zealand regulations and the decrease of family and personal incomes, customers paid more attention to the choice of high-quality and high-profile, or low-price commodity brands in their decision making when purchasing goods.
– The shortage of supermarket necessities and cleaning products supply chains were caused by customer' panic buying.
– Customers expected that online websites could provide high-quality services and would provide a better network of security and customer information protection in an online environment.
– Customers focused on healthier and more sustainable products.

SOLUTIONS TO IMPROVE CUSTOMER SATISFACTION AND EXPERIENCE

Investigating managerial problems caused by the change of customer behaviour as a result of the COVID-19 pandemic, this section suggests several solutions and strategies to assist supermarket retailers to improve customer satisfaction and experience.

New Pricing and Product Portfolio Strategies for the Supermarket Retail Industry

Before COVID-19, customers were increasingly inclined to choose product brands and promotional products (Gázquez-Abad et al., 2017). Although customers did not think that they spent more time on pre-planning, there were differences between various customer segments (Puellas et al., 2016). Households and low-income customers were more likely to be one of the market segments that looked for coupons and promotional activities (Puellas et al., 2016). On the other hand, other customers made a list to use when shopping (Martin-Neuninger & Ruby, 2020). They were not prepared for the normal market, and they chose products with high quality and high profiles (Bialkova et al., 2020). They were usually made up of high-income customers (Puellas et al., 2016).

Retailers could modify the product mix in supermarkets according to the needs of high-income customers' market segments, which was in line with their current preference for heuristic shopping (Basari et al., 2020). For example, retailers could delete mineral water that was not well known among customers. They could increase the brand of mineral water that customers were familiar with and in great demand. Retailers could try to purchase well-known brands of food and health products and put them in the most prominent places in the supermarket, which could reduce the decision-making time of customers. The combination of these strategies would meet the needs of customers and improve their satisfaction and increase the sales volume and reduce the expenditure on promotional products (Basari et al., 2020).

It was suggested that supermarket retailers choose cost-based pricing strategies to provide lower-priced necessities to meet the needs of the low-income customers (Grewal et al., 2011). For example, supermarket retailers could use innovative technologies such as Radio Frequency Identification (RFID) and tags and eye-tracking technology to carry out electronic display pricing, so that they could deploy real-time pricing according to product availability (Grewal et al., 2011). As such, customers tended to look for the lowest price for any product they needed. Therefore, retailers could offer exclusive discounts and customised quotations through loyalty programmes, such as offering corresponding discounts based on the original lower prices, to attract those customers and enhance their loyalty.

It is suggested that supermarket retailers should continue developing their own brand for necessities. Supermarket own brand is that these retailers launch a brand to acquire a single brand identity (Kumar et al., 2017). Kumar et al. stated that the aim was for supermarket retailers to easily attract those customers who are price-sensitive. For example, a supermarket is committed to the continuous development of its own brand's essential series, to ensure that it can provide easily identified high-quality daily necessities to meet customer needs at a low price (Countdown, 2016). The reason is that supermarket retailers can cooperate with their proprietary product technicians and product suppliers to produce and develop products at lower prices, which will also provide supermarket retailers with opportunities to control product availability and quality (Basari et al., 2020).

Improving the Resilience and Agility of the Supply Chain

During the COVID-19 pandemic, the unpredictable shortage of goods and demand patterns had a serious effect on the operation of the supply chain and caused a lasting impact (Hobbs, 2020). Supermarket retailers could not use the traditional supply chain disruption preparation, mitigation, and recovery strategies to plan recovery, because these strategies were simply inadequate to cope with this the COVID-19 pandemic situation (Ivanov, 2020). On the contrary, supermarket retailers need to use their unique assets and capabilities, and constantly adjust and develop their capabilities to make the supply chain more resilient and agile, to better manage daily necessities such as food and toilet tissues otherwise customer satisfaction and experience may be negatively affected (Pettit et al., 2013).

The following are strategy and solution suggestions for supermarket retailers to predict and mitigate the risks and interruptions to the supply chain.

Achieve Flexibility by Adding Additional Suppliers

Supermarket retailers in New Zealand can increase procurement from local suppliers to design and deliver key products and services through a localised end-to-end supply chain resilience and may help to build supply chain resilience (Pettit et al., 2013). However, most of the cleaning and hygiene products in New Zealand supermarkets, such as hand sanitiser and masks, are purchased abroad (Kuijpers et al., 2020). According to a market survey of products in supermarkets in New Zealand, 70% of cleaning and hygiene products come from China and Southeast Asia (Kuijpers et al., 2020). Hence, supporting cleaning and hygiene products produced by local suppliers would help to reduce unexpected outsourcing costs and reduce supply chain risks (Stentoft et al., 2015). For example, supermarkets supported more than 400 new and independent local vendors, which provided 3000 new products during the COVID-19 pandemic, further relieving product supply pressure (Countdown, 2020).

Share Key Information and Knowledge and Create Cooperation of Joint Efforts

This cooperation refers to the process in which supermarket retailers and suppliers interact through formal and informal exchanges of meaningful and timely information to obtain common interests or mutual benefits (Bode et al., 2011). Information sharing can also be completed differently such as through marketing promotion plans, inventory levels and point of sale data sharing (Jie et al., 2015). However, to be agile, visibility is required to gain knowledge about the actual changes in constant current changes, so that the supply chains can respond actively or passively (Wieland & Wallenburg, 2013). For instance, a supermarket retailer has created a new application called Compass, which allows their local suppliers to closely monitor the sales of their products at any site (Countdown, 2020). Compass used historical sales patterns to calculate daily sales expectations for each product at each site and generate alerts for local suppliers to quickly identify and fix potential shortages or other problems (Countdown, 2020).

Develop Remote Expert Service and Security System Technology

In the whole online shopping process, customers expect supermarket retailers to provide higher levels of service (Parise et al., 2016). If staff cannot answer questions quickly, online customers will reduce their satisfaction and even give up buying. At present, no supermarket retailer in New Zealand provides online real-time customer support chat to provide immediate help for customers in terms of service (Martin-Neuninger & Ruby, 2020). For this purpose, it is suggested that supermarket retailers could develop and provide remote expert service technicians. Remote experts are real people located in remote places who can provide instant services to online customers (Parise et al., 2016). Remote experts can appear on a user-owned mobile device via videos embedded in supermarket retailers' mobile apps or .com store pages.

Supermarket retailers can apply remote expert service technicians to assist customers from pre-purchase until any time after purchase. Although real-time text chat can bring higher sales conversion rates, in contrast, real-time video chat can bring an immersive experience to the end-users, making customers feel like they are shopping in the supermarket. Therefore, it is possible to transform and upgrade the customer experience to a new level (Scholz & Smith, 2016). For example, during a video chat in the consideration stage, customers who encounter specific product issues can instantly contact and consult remote experts, who can answer product queries, explain different product choices, and provide product-specific advice.

In addition, customers need to consider whether to trust the online shopping website transaction system has security and privacy, and then they can purchase online. Therefore, in the face of the rising trend of cybercrime and cyber security problems in online shopping during the COVID-19 pandemic period, there are various tools that can help supermarket retailers to protect their online websites from cybercrime attacks (Petrenko & Makoveichuk, 2017). Some of the tools for monitoring cyber-attacks include software tools, such as Security Information and Management Systems (SIEM), Intrusion Detection Systems (IDS) and Intrusion Protection Systems (IPS). These tools are a type of customer data protection technology used to detect and avoid unauthorised access, viruses and malware, and data theft (Petrenko & Makoveichuk, 2017). Meanwhile, they collect security logs, combine IDS and SIEM rules in the integration process, use network security intelligence to analyse trends and specify remediation strategies according to global cyber-attack vectors to implement daily monitoring (Pratt, 2017). These tools can help solve the risk of information theft and money loss during online shopping.

Develop Health and Sustainable Products with the Crown Research Institute

In the new era of COVID-19, it can be predicted that customers will increasingly look for new health and sustainable products to enhance their immune systems in the future (Kuijpers et al., 2020). Therefore, it is suggested that New Zealand supermarket retailers should increase their research and development investment in food and nutrition. This can be achieved by establishing a partnership with Plant & Food Research. This is a Crown Research Institute supported by the New Zealand Government committed to the design and development of new functional food beneficial to human health and well-being (Plant & Food Research 2020). Supermarket retailers and other organisations cooperate should develop functional food fortified with bioactive compounds and antioxidants to support customers' immunity and meet their current health needs (Galanakis, 2020). For example, reducing the cost of meat produced in sterile laboratories, thereby reducing the cost of food waste restoring and reusing in the food chain and developing large new food supply chains based on insects and microalgae (Galanakis, 2020). Meanwhile, to support the public campaign on the purchase of healthier products and the awareness of sustainability, supermarket retailers must also require food producers and suppliers to provide greater transparency in labelling and reliability, to ensure accurate and comprehensive information about the sustainability of products in the production process, which further enhances the reputation of the supermarket retail industry or organisation. (Borsellino et al., 2020).

RECOMMENDATIONS

This section critically evaluated solutions and made some credible, concrete, and feasible suggestions. These recommendations may be decisive and will help the supermarket retail industry to improve customer satisfaction and experience.

Establish Long Term Collaborative Relationships with Local Suppliers

Stank et al. (2011) proposed an extended supply chain collaboration model, including the organisation of relationship links, information integration, coordination, and resource sharing. It emphasised that a stable and reliable supply chain relationship is critical to enhancing the cooperation of the supply chain (Hobbs, 2020). This cooperative supply chain relationship has established long-term cooperation and trust relationship between supermarket retailers and suppliers and has the flexibility in response to demand or unexpected supply interruption changes (Hobbs, 2020). This would effectively utilise and merge the resources of both parties and integrate information and material flow well (Cao & Zhang, 2011).

First, the trend should be to create long-term relationships with suppliers rather than short-term contracts. The reason is that the surge in demand caused by the COVID-19 pandemic panic buying may be a short-term problem in most cases. Although New Zealand supermarket retailers may increase local suppliers through short-term contracts as demand increases. Once the status quo is restored and demand declines, supermarket retailers may reduce their dependence on and number of local suppliers to squeeze the supply chain to improve cost efficiency. This process can be predicted, and it will harm the contractual relationship between retailers and suppliers (Hobbs, 2020). In addition, the supply chain performance of most small-scale local suppliers in New Zealand is weak and it would appear there is considerable potential for improvement, because most of them have insufficient cooperation and support from supermarket retailers (Banomyong, 2018). Therefore, under such circumstances, it is recommended that supermarket retailers establish long-term cooperative local supplier relationships as an integral part of their retail business, and explore various cooperation channels, including a joint improvement plan, supplier integration in product design, and profit and risk-sharing. These channels will further improve the supply chain performance of local suppliers and strengthen long term collaborative relationships between supermarket retailers (Cao & Zhang, 2011).

Secondly, supermarket retailers and local suppliers can also be prepared to invest heavily in information and communication technologies to establish long-term collaborative relationships, including the Web Internet and Business to Business (B2B) electronic point of sale (EPOS). The advantage is that it can ensure information sharing and integration between many local suppliers and supermarket retailers and provide a better platform for them to participate in and solve problems, such as product shortages and product demand change prediction (Prajogo & Olhager, 2012). Information sharing is important, but its impact on the supply chain also depends on the quality of the shared information. The impact of incorrect or delayed information on functions may adversary effect on supply chain efficiency (Jie et al., 2015). Hence, effective and suitable information and communication technology connections provide them with real-time and accurate supply chain information, including inventory level, delivery status, production planning and scheduling (Ivanov, 2020). This helps to promote the consistency of business forecasting and scheduling between supermarket retailers and local suppliers, thus achieving better long-term collaboration (Prajogo & Olhager, 2012).

Cultivate the Digital Adaptability of Employees

According to Parise et al. (2016), although from the customer perspective, today's smartphones and laptops are equipped with increasingly powerful cameras and video software, making remote expert service technology popular. In supermarket retail, the cost of expanding video conferencing systems, large screens, high-resolution displays, and bandwidth across physical supermarkets, branches and sites continues to decline, making this solution feasible and available in New Zealand. However, this solution also encounters some challenges. One of the main obstacles is the need to coordinate remote experts to provide online services to customers on-demand (Parise et al., 2016). Therefore, it is critical to have professional and sufficient remote experts. This improvement would make it necessary for New Zealand supermarket retailers to train and improve their employees' digital adaptability in advance to meet customers online satisfaction. Customer satisfaction can be improved if the remote experts from supermarkets are trained to recognise the interaction preferences of customers and adapt their behaviours to meet the preferences of the customers (Olsen & Skallerud, 2011). It is recommended to cultivate employees' online social style, sales strategy, oral communication, and body language communication skills to improve customer satisfaction. Meanwhile, it is recommended that supermarket retailers increase salaries, and the recruitment plan focuses on professional online remote experts, which could improve the quality of applicants for retail positions and increase the potential for daily sales revenue (Rippé et al., 2016).

Good Sustainable Practices

During the COVID-19 pandemic, changes in customer behaviour prompted customers to buy more than necessary amounts of food, which greatly exacerbated global food consumption. Meanwhile, the increased intake of animal protein in diet habits and the increasing dietary habits of processed food products harm the natural environment and human health (Thøgersen, 2014). Therefore, it is recommended that supermarket retailers promote feasible and reliable sustainable practices to meet these challenges. Such sustainable practices need to consider environmental protection and respect for biodiversity and ecosystems and provide customers with economically equitable and affordable, nutritious, safe, and healthy food (Borsellino et al., 2020).

Furthermore, the consumption of new and innovative organic food is a key factor in protecting the environment and promoting the health and well-being of future generations, which also meet the health needs of customers during the COVID-19 pandemic period. It is warmly welcomed and loved by customers, thus promoting sustainable production and consumption patterns (Bryła, 2015).

In addition, an important factor is that New Zealand has many Crown Research Institutes undertaking sustainable food research, such as AgResearch and Plant & Food Research, which undoubtedly has unique advantages for the supermarket retail industry in New Zealand, because of their geographical location. Therefore, it encourages the transmission of information to promote the practice of sustainable development, thus achieving more meaningful innovation (Pavlovich & Akoorie, 2010). By establishing public-private partnerships with Crown Research Institutes, it is possible to raise income in the food value chain, provide more uses for food waste, and develop new products that can bring health and well-being to customers (Pavlovich & Akoorie, 2010).

CONCLUSION

In conclusion, the arrival of COVID-19 and considering the problems and challenges brought about by changes in customer sentiment and customer behaviour may lead the New Zealand retail industry to future development prospects and opportunities. Because New Zealand Government (2020) regulations and the rise in the New Zealand unemployment rate during COVID-19 led customers to change in customers specific ways of shopping in supermarkets. They tended to use simple heuristic methods for shopping, such as product brand and price. Due to the uncertainty of the future and the fear of contracting COVID-19, the panic buying behaviour of customers generated, and aggravated the supply pressure on some food and cleaning products. In addition, during the COVID-19 pandemic period, the trend of online shopping in supermarkets was introduced. However, online shopping needed better services to meet customers' needs and protect the information security of online customers. Customers also concentrated on the purchase and consumption of healthier and sustainable food.

In light of evidence ascertained form literature searches, to improve customer satisfaction and experience, this investigation proposed several strategies to deal with these problems. The New Zealand supermarket retail industry will need to enhance the resilience and agility of its supply chains, including the increase of local suppliers and the establishment of cooperation through information sharing. As well as supermarket retailers need to update product pricing and product portfolio strategies, develop remote expert services and security system technologies, and develop new healthy and sustainable products in collaboration with Crown Research Institutes.

Wentao Tang received his Master of Applied Management degree from Otago Polytechnic Auckland International Campus. His research interests focus on customer behaviour analysis, marketing analysis and organisation operational management.

Indrapriya Kularatne is a Principal Lecturer at Otago Polytechnic Auckland International Campus New Zealand. He has obtained his Ph.D. from the University of Auckland, Master of Management from the Massey University and Master of Science from the University of Sri Jayawardenepura (Sri Lanka). His research focuses on sustainability, environmental management, employability skills, project management and corporate social responsibility.

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https://doi.org/10.34074/rere.00115

Article

"COMIC SELF-CONSCIOUSNESS": OBLIQUE APPROACHES TO THE ELEGIAC

Kim Fulton

ABSTRACT

This critical essay explores indirect approaches to heavy themes in contemporary elegiac poetry. Whereas traditional elegists focused on death, contemporary elegiac poems deal with loss in a broader sense. The challenge contemporary elegiac poets take on is to engage with feeling but without veering into sentimentality. I will explore how two contemporary poets, Billy Collins and William Matthews, approach loss indirectly to evade sentimentality. Specifically, I will argue that Collins and Matthews, both of whom are noted for their elegiac orientation and their use of wit, engage with loss through three strategies: the postponement of acknowledging the loss central to the poem, the use of incongruities manifesting as humour and irony, and by gaining the reader's complicity through the use of metapoetics. I will argue contemporary elegiac poetry succeeds in evading sentimentality without reducing its emotional stake when poets take such indirect approaches to loss. This seems to be what an effective contemporary elegiac poem does: it draws us in with its humour or light-heartedness, gets us invested or interested in a subject that is amusing or familiar or without a necessary connection to the weight of the emotion, then shifts to its more serious stake.

"COMIC SELF-CONSCIOUSNESS": OBLIQUE APPROACHES TO THE ELEGIAC

As John B. Vickery notes, contemporary poems of the elegiac mode differ from more traditional elegies in that they focus on loss rather than death. "Whereas renaissance, Romantic, and Victorian elegists hewed pretty sedulously to death as their prime subject, one finds a distinct tendency in the modern period to broaden the focus to include loss of all kinds as the basic stimulus and concern" (Vickery, 2006, p. 1). Vickery argues that contemporary elegiac poems tend to be oblique, indirect, and sometimes ironic and so tend to repress the impact of the loss (Vickery, 2006, p. 6).

An explanation for such a shift is a concern among poets to avoid sentimentality. One reason is suggested by poet and critic Kevin Prufer's distaste for sentimentality, which he proposes is the enemy of emotional complexity. It can ask us to feel outrage and sadness, but not ask us to examine those emotions. "Sentimentality, it seems to me, reduces our complex responses to the world; a poem ideally ought to expand those responses" (Prufer, 2012, p. 79).

Benjamin Myers notes that an abundance of emotion is not a bad thing in itself. But sentimentality has been defined as "emotion in excess of its object" (Myers, 2016, p. 45). Myers argues sentimentality is not simply too much emotion, but an imbalance of it. "Sentimentality offers us the dubious chance to feel while bypassing the messiness of any real human engagement: not too much feeling but too thin an experience" (Myers, 2016, p. 46). He believes sentimentality permits emotional satisfaction without emotional connection. It is an agreement between artist and audience to skip straight to gratification, "which, due to the skipping, is not so gratifying after all" (Myers, 2016, p. 46).

This assertion echoes Oscar Wilde's famous observation that emotions must be paid for. "We think we can have our emotions for nothing. We cannot. Even the finest and most self-sacrificing emotions have to be paid for. Strangely enough, that is what makes them fine" (Wilde, 1911, p. 111).

In summary, the challenge contemporary elegiac poets take on is to engage with feeling but without veering into sentimentality, hence their "indirect" approaches. In this essay, I will explore how such indirect approaches work by looking at the way two contemporary poets evade the risk of sentimentality. Specifically, I will argue that Billy Collins and William Matthews – chosen because both are known for their use of wit and for engaging in the elegiac mode – engage with loss through the postponement of acknowledging the loss central to the poem, the use of incongruities manifesting as humour and irony, and at times by gaining the reader's complicity through metapoetics.

POSTPONEMENT

Collins and Matthews frequently postpone feelings of loss in their poems by beginning with a subject seemingly unconnected to any serious emotions, such as the weather, or notes in the margin of a library book. They go on to use these seemingly innocent subjects as a gateway into serious ponderings.

In a Public Broadcasting Service (PBS) interview, Collins touches on this shift from the casual to the serious. If the poem "starts out with a kind of – casual straightforward tone, trying to just get the reader engaged in the first stanza by not making too many demands on the reader" he hopes the poem as it goes on becomes "a little more demanding, a little more ambiguous or speculative, so that we are drifting away from the casual beginning of the poem into something a little more serious" (PBS, 2013).

An emotional shift occurs in "Marginalia", where notes discovered in the margins of texts become symbols of loss as the speaker of the poem internalises them. The speaker starts by making observations about the notes: "Sometimes the notes are ferocious, / skirmishes against the author / raging along the borders of every page," he writes, while "Other comments are more offhand, dismissive - / 'Nonsense.' 'Please!' 'HA!!'" (Collins, 2000, p. 107). These observations set the poem up as a set of light-hearted transcriptions. Collins makes use of humour, as he works to convince us that this is just a poem about scribbles in texts. "One scrawls 'Metaphor' next to a stanza of Eliot's. / Another notes the presence of 'Irony' / fifty times outside the paragraphs of A Modest Proposal" (Collins, 2000, p. 107). The humour here arises from the fact that the metaphors and irony in these pieces probably go without saying. The collaboration of these two indirect techniques – humour and postponement of loss – is disarming. We seem to be reading a light-hearted poem, taking pleasure in Collins' jokes. But a sense of loss is gradually revealed through the speaker's perspective and his internalisation of the situation. This deeper meaning first comes across when the speaker observes:

> We have all seized the white perimeter as our own
> and reached for a pen if only to show
> we did not just laze in an armchair turning pages;
> we pressed a thought into the wayside,
> planted an impression along the verge (Collins, 2000, p. 108).

This observation suggests a belief that these people making notes in the margin are trying to leave something of themselves: some proof that they were here, engaging with a particular text. This subtly signals an awareness of the way time passes and of how people try to transcend time and leave proof of themselves, of their significance.

Matthews postpones his expression of loss by focusing first on the mundane topic of rain in "Our Strange and Loveable Weather". The speaker shifts eventually from an ostensible focus on the weather to a deeper point about the passing of time and the ways in which we can misinterpret our pasts. The poem is about the predictable way seasons pass in Seattle (Matthews, 2004, pg. 96).

Mostly we have
cool rain in fog, in drizzle, in mist
and sometimes in fat, candid drops
that lubricate our long, slow springs (Matthews, 2004, p. 96).

The speaker claims that winter, though just beginning, will soon pass and bulbs will swell – a familiar image, not unique to Seattle. The speaker is aware that his observations are not unique but are clichés of life and poetry:

Here you can fill in the bad jokes
about weather and change, about
mixed feelings, about time, about,
not wanting to die. . ." (Matthews, 2004, p. 96).

The speaker then returns to clichéd observations of people clearing their gutters, turning off outside faucets, and questioning how the year has gone so fast. However, in the final lines of the poem the speaker widens the piece's significance by expressing his concern at our tendency to extend these sorts of harmless generalisations to more significant things:

Time to clear the clog of wet leaves
from the gutters, time to turn off
the water to the outside faucets.
And time to think how what we know
about our lives from watching this
is true enough to live them by,
though anyplace lies about its weather,
just as we lie about our childhoods,
and for the same reason: we can't
say surely what we've undergone,
and need to know and need to know (Matthews, 2004, p. 97).

The speaker suggests that it is not just the weather we make generalisations about; we also generalise when we make seemingly profound observations about our lives. We need to understand our pasts in order to move forwards, but we lie to ourselves about them. While it starts as a poem praising Seattle's weather and its predictable changes of seasons, then, the poem goes on to show that many of the generalisations we make about our lives are unreliable. A feeling of loss comes with this new understanding that our pasts may not have occurred exactly as we recall.

INCONGRUITY – HUMOUR AND IRONY

Poems that use humour to achieve their emotional ends work in a similar way to those which postpone loss. Both approaches achieve their effects through an emotional shift. In the poems that postpone loss, this shift occurs gradually as the piece progresses. In humorous poems, it comes in the way of more sudden cognitive shifts driven by 'incongruities'. The dominant theory of humour in philosophy and psychology is founded on the notion of 'incongruity', John Morreall notes. "The core meaning of 'incongruity' in standard incongruity theories is that some-thing or event we perceive or think about violates our normal mental patterns and normal expectations" (Morreall, 2009, p. 11).

Kevin Young argues that "Collins gains his readers' trust through humour; it's a way of descending the perch of authorial authority and sitting down next to you" (Young, 2016, p. 108). Devotees may come for his jokes, he says, but they stay for the weightier asides. Collins explained his use of humour in an Aspen Words interview. He says if he writes a poem with humour in it, "I'm probably trying to make them laugh to disarm them. Because humour is a strategy, not an end in itself" (Aspen Words, 2014). What I will suggest is that Collins uses incongruity in his poems to create the humour that allows him to evade sentimentality even while expressing a feeling of loss.

In "The Sandhill Cranes of Nebraska", the speaker presents a series of natural spectacles he has missed by being at the wrong place at the wrong time: the sandhill cranes in Nebraska, the azalea bloom in Georgia, the autumn foliage in Vermont (Collins, 2013, p. 173). The humour in this poem arises from a cognitive shift. We assume the speaker will be disappointed at missing these events, but he seems not to mind. This ambivalence comes across when the speaker recounts that he "nodded and put on a look of mild disappointment" when told what he had missed (Collins, 2013, p. 173). The speaker avoids sentimentality by refusing a familiar lament about the ephemerality of nature. This unexpected image of a poet feigning interest in something he ought to be moved by gains its humour by turning on the incongruity between what we expect and what we get from his response. But if he gently mocks the importance of these specific spectacles, downplaying his missing of them, he nevertheless finds something poignant about having done so. In the final stanza, he describes himself drinking coffee in a motel lobby. He says the peak of the foliage of Vermont is:

> a phenomenon that occurs, like the others,
> around the same time every year when I am apparently off
> in another state, stuck in a motel lobby
> with the local paper and a styrofoam cup of coffee
> busily missing God knows what (Collins, 2013, p. 173).

This observation that he is "missing God knows what" brings back the humorous image of a poet unfazed by loss. The image is even more unexpected, and hence funnier, this time around as we expect some sentimentality, or at least seriousness, from the final line of a poem. This image of the speaker in a motel lobby is comedic also in that it contrasts sharply with the natural images. At first, the scene seems less significant than those of natural beauty. Despite this, it indirectly hints at a larger loss, the passing of time. He will never be in that motel lobby, drinking from that disposable coffee cup, reading that day's paper again. The disposable cup and the daily paper are images of transience, like the natural scenes, but in this case, they will not return.

Matthews uses humour derived from incongruity to deflect from the tragedy at hand in "The Waste Carpet", a lengthy poem about an ecological apocalypse. In the poem, he imagines a "grotesque parody of the primeval muck" oozing out over America (Matthews, 2004, p. 49). At times, his humour works through exaggeration. He claims, for example, that the United States had hoped it would get off easy in this impending disaster, losing only California which would "crumble into the ocean / like Parmesan" (Matthews, 2004, p. 52). It is a funny image in playing on much of the country's mixed responses to the State of California, a point he presses with a humorous tribute to California:

> We were ready with elegies:
> O California, sportswear
> & defense contracts, gases that induce deference,
> high school girls with their own cars,
> we wanted to love you
> without pain (Matthews, 2004, p. 52).

But while we might laugh at this feigned pity regarding an unrealistic loss, not all losses in the poem are this unlikely. Throughout the poem, the speaker hints at subtler but more real losses. The speaker recounts places he grew up and imagines them seething:

> First we lived on Glade Street, then
> on Richwood Ave. I swear it.
> And now all Cincinnati –

the hills above the river,
the lawn that sloped toward Richwood Ave.
like a valley of pleasant uncles,
the sultry river musk that slid
its compromising note
through my bedroom window –
all Cincinnati seethes (Matthews, 2004, p. 51).

We are unlikely to see a literal ooze covering the country or the loss of the entire State of California, but it is clear that the speaker sees the world and its landscapes changing for the worse. His extreme and humorous observations were perhaps a metaphor for, or a satirical take on, the true loss occurring.

Irony is another approach poets use to evade excessive emotion through incongruity. While the approach is similar to humour technically, it achieves its ends in a different way. Irony allows poets to access emotions indirectly by requiring their readers to uncover their real meaning through careful attention.

Collins uses irony, for instance, to suggest indirectly a sense of loss and loneliness in "Old Man Eating Alone in a Chinese Restaurant". This irony suggests a speaker's refusal to acknowledge his true emotions. The piece is unsentimental in part because of its mundane setting - the speaker is reminiscing not about a beautiful natural landscape but about his local Chinese restaurant in which he eats alone (Collins, 2013, p. 121). In previous years, he observes, he would have felt sorry for someone in his position. When he was young, he perceived an old man eating in the restaurant as someone to pity "the poor bastard, not a friend in the world / and with only a book for a companion" (Collins, 2013, p. 121). The speaker claims that perception would have been "all wrong" and suggests it has changed as he has become the old man. He appreciates his book, the light falling through the windows and the soft brown hair of the waitress. There are, however, hints that what the speaker says is not what he means: "So glad I waited all these decades / to record how hot and sour the hot and sour soup is" (Collins, 2013, p. 121). It is difficult to take seriously his suggestions that he is glad he waited decades to record such a mundane experience; this in-turn, casts doubt on the contentment with ageing that he has expressed. This would seem to invite us to re-think the other assertions. Perhaps the speaker is lonely and is trying to kid himself that he is not the "poor bastard" he would have pitied years earlier. This loss in the poem comes across obliquely through our understanding of the speaker's irony. We are invited to pity him not just for his lonely situation but also for his failure to be initially honest about his feelings of loneliness.

METAPOETICS

Metapoetics differs from the other indirect approaches discussed in its technical features. Yet it shares with them what Matthew J. Marr would call an underlying "comic self-consciousness", which liberates poetry from its traditional seriousness and allows for more surprising approaches to emotion (Marr, 2003, p. 422). Marr argues that modern verse is tied to a legacy of vocational seriousness which has a long history in the genre "Beginning in the nineteenth century, poetry is locked in a sort of symbiotic relationship with somberness" (Marr, 2003, p. 422). In recent years, however, the institutionalisation of this solemnity of purpose has been challenged by the forces of humour. "Indeed, a prominent though understudied aspect of literary postmodernism is its drive to defame and topple the burden of vocational seriousness cultivated by the modernists" (Marr, 2003, p. 423). One way of carrying this out, he argues, is through "a playfully irreverent and self-derisive strain of metapoetic humor". Marr describes this metapoetic humour as "a comic self-consciousness" (Marr, 2003, p. 423).

Collins uses metapoetry in "Lines Composed Over Three Thousand Miles from Tintern Abbey" to acknowledge the familiarity of the elegiac sentiment he expresses. In doing so he works to set himself apart from all who have expressed the sentiment before in familiar and perhaps seemingly insincere ways. He builds complicity with his reader by presenting himself as somebody who does not take his vocation too seriously (Collins, 2000, p. 127). Collins playfully draws attention to the poem as a poem to acknowledge the shortfalls of poetry and thus gain the reader's trust. First, Collins pokes fun at the tendency of poets to lament the way places change over time.

> I was here before, a long time ago,
> and now I am here again
> is an observation that occurs in poetry
> as frequently as rain occurs in life (Collins, 2000, p. 127).

In his title, Collins refers to the famous William Wordsworth poem "Lines Written a few Miles Above Tintern Abbey", which deals with a speaker who revisits a site five years after his last stay and reflects on the changes in his surroundings and himself.

Collins' poem addresses the way poets often reflect on changes in this way: "Something is always missing- / swans, a glint on the surface of a lake, / some minor but essential touch" (Collins, 2000, p. 127). In mocking the lack of originality among poets lamenting lost time, Collins nevertheless draws attention to the universality of that sentiment. The poem suggests Wordsworth felt it two hundred years ago and Collins feels it now, and many poets and readers have felt it in between. Through what Marr would call his "comic self-consciousness", Collins laments a loss larger than that of a single location such as Tintern Abbey, or the dark Bavarian forest that the poets who he mocks lamented. Collins' speaker is lamenting a more collective, more universal loss - the passing of time itself.

Matthews uses metapoetics to express a surprising loss in the poem "Search Party" – a loss of faith among readers in the sincerity of art. The stake at the surface of the poem is a child's life- the poem is about a group of parents searching for a lost child (Matthews, 2004, p. 3). The piece is metapoetic in that there is a play between the text as writing and the text as commentary on that writing. Matthews accuses the reader of scepticism by addressing us in the poem: "Reader, by now you must be sure / you know just where we are, / deep in some symbolic woods" (Matthews, 2004, p. 3). He assures us that is not the case, as though believing the poem was merely art would reduce the stake somehow. The speaker claims the search is not symbolic and argues that a child's life was in fact at stake:

> "You're wrong, though it's
> an intelligent mistake.
> There was a real lost child.
> I don't want to swaddle it
> in metaphor (Matthews, 2004, p. 3).

The true loss in the poem derives from his need to persuade us. Behind his self-awareness is a fear that the reader doesn't believe in the poem's sincerity. The speaker builds trust with the reader through these direct addresses by acknowledging the reader's intelligence manifested as cynicism.

Toward the end of the poem, he accuses us of not being as indifferent as we might suppose.

> You've read this far, you might as well
> have been there too. Your eyes accuse
> me of false chase. Come off it,
> you're the one who thought it wouldn't
> matter what we found (Matthews, 2004, p. 4).

In his closing lines he expresses confidence in the job he's done relaying this tale in a manner his reader will care about:

> Though we came with lights

and tongues thick in our heads,
the issue was a human life.
The child was still
alive. Admit you're glad (Matthews, 2004, p. 4).

Perhaps he is also expressing confidence in his reader, who has, after all, stayed with him for the entirety of the poem. He leaves his reader hanging for a moment ending the second to last line with the word "still". The reader might worry that "still" refers to the child being dead. The word takes on a second meaning, however, moving from adjective to adverb in the final line, when the speaker reveals the child was "still / alive". It was a poetic trick that had us worried. There is, then, some hope in the ability of poetry to move us. When the speaker asks the reader to admit they were glad, he suggests they are being dishonest in their indifference. The poem takes an indirect route to a loss in that it repeatedly jumps away from the lost child, which is only the ostensible, potential loss at stake in the poem. The metapoetic technique, however, allows it to move toward the real, arguably greater loss: our perceived loss of faith in the ability of poetry to engage in feeling.

CONCLUSION

Contemporary elegiac poetry succeeds in evading sentimentality without reducing its emotional stake when poets take an indirect approach to loss. Collins' and Matthews' elegiac pieces show that this bypass of sentimentality can be achieved through postponement of loss as well as through incongruity manifesting as humour and its subspecies irony. Poets can also achieve this result by using metapoetics to build complicity with a reader. These two poets postpone loss by beginning with a quotidian topic unencumbered with emotional connotations and so surprise us with the true loss at the centre of the poem. They use the incongruity of humour to shock the reader with the loss, having set up a casual and comic scene. They use irony – a distance in opposition to sentiment – to imply loss. Both poets at times use metapoetics to acknowledge the reader's scepticism about poetry's reliability and thus build complicity from a reader that is necessary to present a loss that is otherwise too familiar.

Kim Fulton is the Content and Communications Lead at Otago Polytechnic Auckland International Campus. Her poetry and fiction have appeared in literary journals in New Zealand and overseas including Landfall, Mimicry, Poetry New Zealand, Hue and Cry, JAAM, takahē, and The Pangolin Review. In 2020, she published her first book of poems, I kind of thought the alpacas were a metaphor until we got there. Kim holds a Master of Creative Writing, a Bachelor of Art majoring in English literature, a Bachelor of Science majoring in ecology, and a National Diploma in Journalism.

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Auckland International Campus
In partnership with Future Skills Academy

New Zealand 0800 111 212
International **+64 9 309 0301**
Email **auckland@op.ac.nz**
Visit us at **www.auckland.op.ac.nz**

Auckland International Campus
Level 1, 350 Queen Street
PO Box 5268, Auckland
New Zealand 1141