

The Asian Conference on Business & Public Policy
NOVEMBER 6–7, 2020 | ONLINE FROM TOKYO, JAPAN

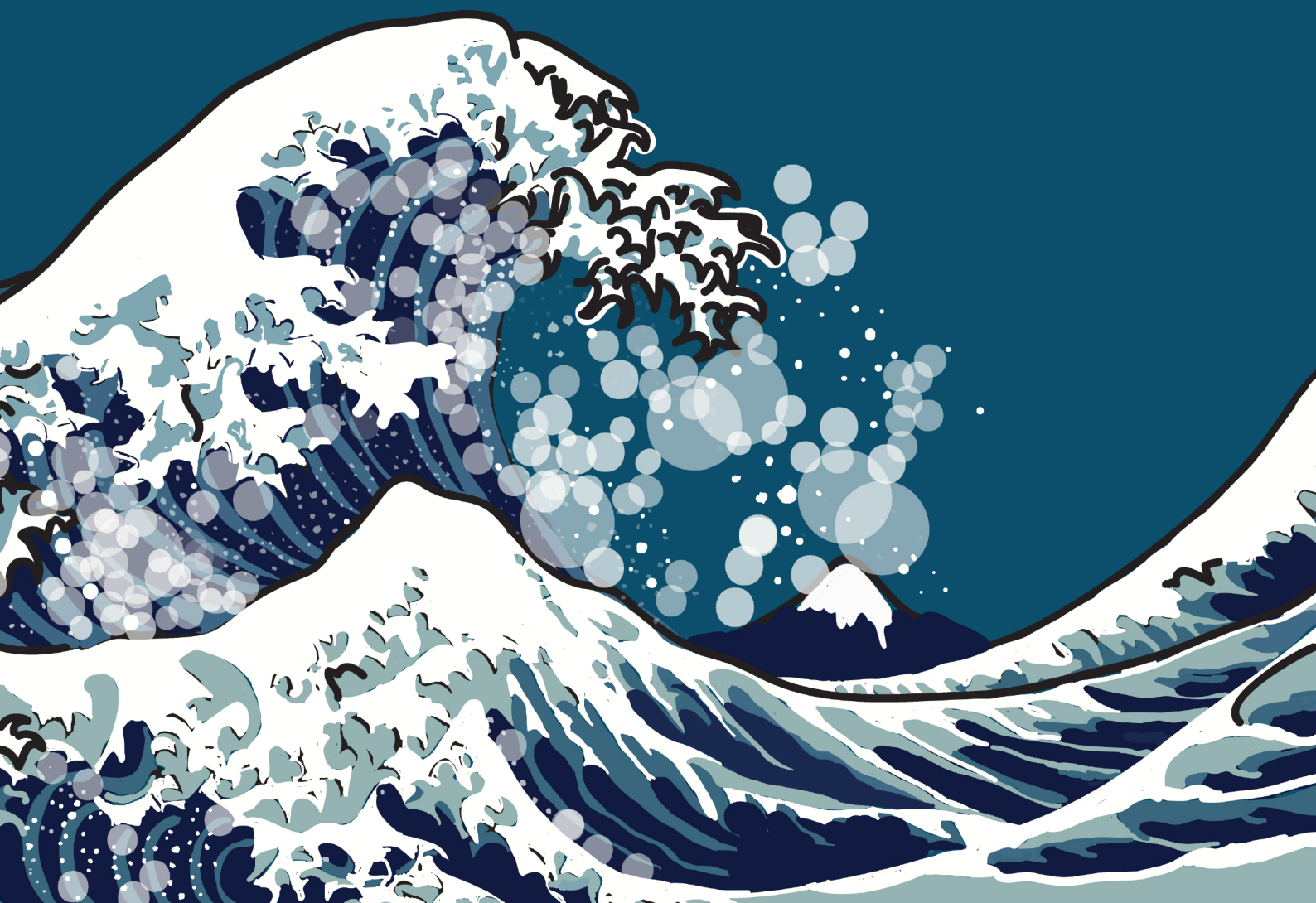


Official Conference Proceedings

Organised by The International Academic Forum (IAFOR) in association with the IAFOR Research Centre at Osaka University and IAFOR's Global University Partners

ISSN: 2189-1001

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The Asian Conference on Business & Public Policy 2020

Official Conference Proceedings

ISSN: 2189-1001



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The International Academic Forum (IAFOR)
Sakae 1-16-26-201
Naka Ward, Nagoya, Aichi
Japan 460-0008
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Depends on the Consequences: Measuring Consumer Attitudes Towards Persuasive Marketing

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Abstract

Academic discussion about the ethics of marketing typically focuses on the role such practices can play in undermining human autonomy through manipulation of the consumer's decision-making processes (cf. Arrington, 1982; Crisp, 1987; Cunningham, 2003; Rudinow, 1978; Sneddon, 2001; Waide, 1987). However, researchers have not explored these issues from the perspective of those who may be targeted by such messages. In this study we employ an experimental approach to selectively probe consumer attitudes towards manipulative marketing, focusing specifically on how their views on the use of manipulative marketing tactics may change depending on how they feel about the consequences these tactics will bring about. In study 1, we isolate the selective impact of two specific variables on the evaluation of marketing tactics: 1) the persuasiveness of a marketing campaign, and 2) the consequences of the marketing campaign. Our results indicate that people are generally consequentialist in their evaluation of marketing advertisements, and that the persuasiveness of a given campaign only impacts its ethical judgment when it produces negative consequences. We also discuss ongoing and future work, which aims to build upon, and extend these findings by directly examining how perceived manipulation influences ethical judgments.

Keywords: Marketing, Ethics, Persuasion

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Introduction

Consumer autonomy is a crucially important subject requiring urgent attention due to the rapidly accelerating potential of marketing technologies to shape consumer needs, wants, and behaviors. Owing to the vast amounts of increasingly robust data that is being analyzed through increasingly sophisticated algorithms, models for consumer behavior are becoming more detailed and more effective every day. By combining purchase data and digital data with personality science, companies gain a monumental psychological advantage, while consumer protections against these powerful mechanisms of influence lag behind.

The 2016 American Presidential Election brought this reality to the forefront. During that campaign, Donald Trump's election team hired UK-based Cambridge Analytica to help move the needle on his campaign. The company created a simple survey, which was eventually taken by over 270,000 people. Using predictive analytics, they then used the data to derive a unique OCEAN personality profile for each person (AP, 2018).

Exactly how much influence Cambridge Analytica had over the 2016 election is difficult to quantify. Nonetheless, their work provides a preview of the likely future of advertising, which will become increasingly granular and personal and involve considerable accuracy and precision. The prospect of consumer manipulation has never been greater, and the tools for such manipulation have never been more widespread. However, it is unclear how consumers view these threats or how they generally feel about the risk that their decisions may be shaped by forces about which they have little advance knowledge.

We define manipulation as the "attempt to motivate another's behavior by undermining what the agent believes is his/her audience's normal decision-making process." (Sher, 2011, p. 100). Unlike some earlier attempts, this definition has the virtue of not excluding the possibility that someone might be manipulated into pursuing goals they already have (cf. Rudinow, 1978). We assume that, when it comes to their consumption choices, most individuals would express a first preference for being motivated through rational persuasion, with the use of coercive force lying at the opposite extreme and various other forms of manipulation falling somewhere between the two.

The modern consumer environment bears a close resemblance to political elections. However, in the consumer space, the goal is not to persuade a voter to choose a political candidate, but to persuade a consumer to purchase a specific product or service.

The success of a marketing tactic (branding, advertisements, etc.) is defined by its ability to persuade. Persuasion is key to making the value exchange work. We argue that the persuasive effect of any given marketing tactic is not binary, but rests on a continuum comprising a simple scale with a range from 0 to 10. A factor scored as a 0 has no effect on future behavior, while a 10 means has a guaranteed effect on future behavior. At the far right of the spectrum, a person is guaranteed to undertake a desired behavior as a direct result of an ad; at the far left, the marketing tactic has no impact on whether or not the desired behavior occurs.

We argue that this spectrum can help contextualize the ethical conversation surrounding manipulative marketing. At what point along this spectrum of persuasiveness will

consumers perceive it as being likely to involve means that should be considered unethical? Proponents of individual autonomy (e.g. Prior 1960) are immediately uncomfortable with the idea that a marketing tactic could have deterministic impact on their behavior. However, research has not yet been directed towards understanding where on the spectrum consumers will tend to draw the line between permissible and impermissible means of persuasion.

Our research represents a first move towards clarifying the answers to such questions, and is motivated by three observations: 1) the sheer persuasiveness of a marketing tactic poses a potential threat to consumer autonomy, 2) we know very little about how consumers themselves view this threat, or under what circumstances they even view it as such, and 3) being as persuasive as possible (short of lying or threatening consumers) is core to the entire disciplines of marketing and sales. Given the potential for tension to arise among this combination of factors, there are many opportunities for future research. The goal of this project relates to the second observation: we aim to identify and understand the attitudes that consumers generally hold towards advertising involving stronger or weaker persuasive effects, and when (if ever) they will perceive a threat of manipulation given these effects. In particular, we focus on identifying how, if at all, the assessment of these risks depends on the desirability of the potential consequences that will follow from being persuaded.

While any answers we might receive to these questions is necessarily preliminary at this early stage, they provide an indication of how consumers view 21st Century threats to autonomy, and to what extent their objections to it are potentially mediated by the prospect of better or worse consequences that may follow as a result of their persuasion.

Methodology

Study 1 presents respondents with a series of scenarios in which marketing messages leading to positive or negative consequences for the consumer will change their preferences with varying degrees of probability. This allows us to measure variance in participant attitudes towards the raw persuasiveness of marketing messages given the consequences. Study 2, in progress, is assigned to a different group of respondents and repeats the same scenarios, but places responsibility for changes in consumer behavior on being zapped with a “marketing ray gun” rather than the persuasiveness of the marketing messages themselves. Since being “zapped” into holding new preferences is a clear case of manipulation, this allows us to directly measure variance in participant attitudes towards manipulative marketing practices given the consequences.

Study 1 employed a 3 x 2 design, with three levels to each of two variables (persuasiveness: low, medium, and high; and consequences: positive, neutral, and negative). For example, a scenario for positive consequences/low persuasiveness reads as follows:

Company X designed a marketing campaign aimed at people who typically value healthy eating. The campaign is designed to persuade these people to buy their product: A healthy snack. Previous research has indicated that this campaign is only moderately persuasive: 10% of people who did not already intend to buy the product will now buy it.

After reading each scenario, subjects were asked to rate the degree to which they felt it would be morally wrong to run this campaign. 50 Native-English speaking participants were recruited via Qualtrics and were compensated \$5 each for their participation.

Results and Discussion

The results from Study 1 indicate two primary findings. The first is that people are largely consequentialist in their judgements of these campaigns. Increasing persuasiveness did not in itself increase moral condemnation ($F = (1,119) = 3.2, p = 1.8$). However, to a significant degree ($F = (1,119) = 5.01, p = .03$) disapproval grew progressively higher as the consequences shifted from negative to positive. We also observe that persuasiveness and consequences interact. People are significantly ($F = (3,238) = 6.23, p = .01$) more against highly persuasive campaigns when (and only when) the campaigns produce negative consequences.

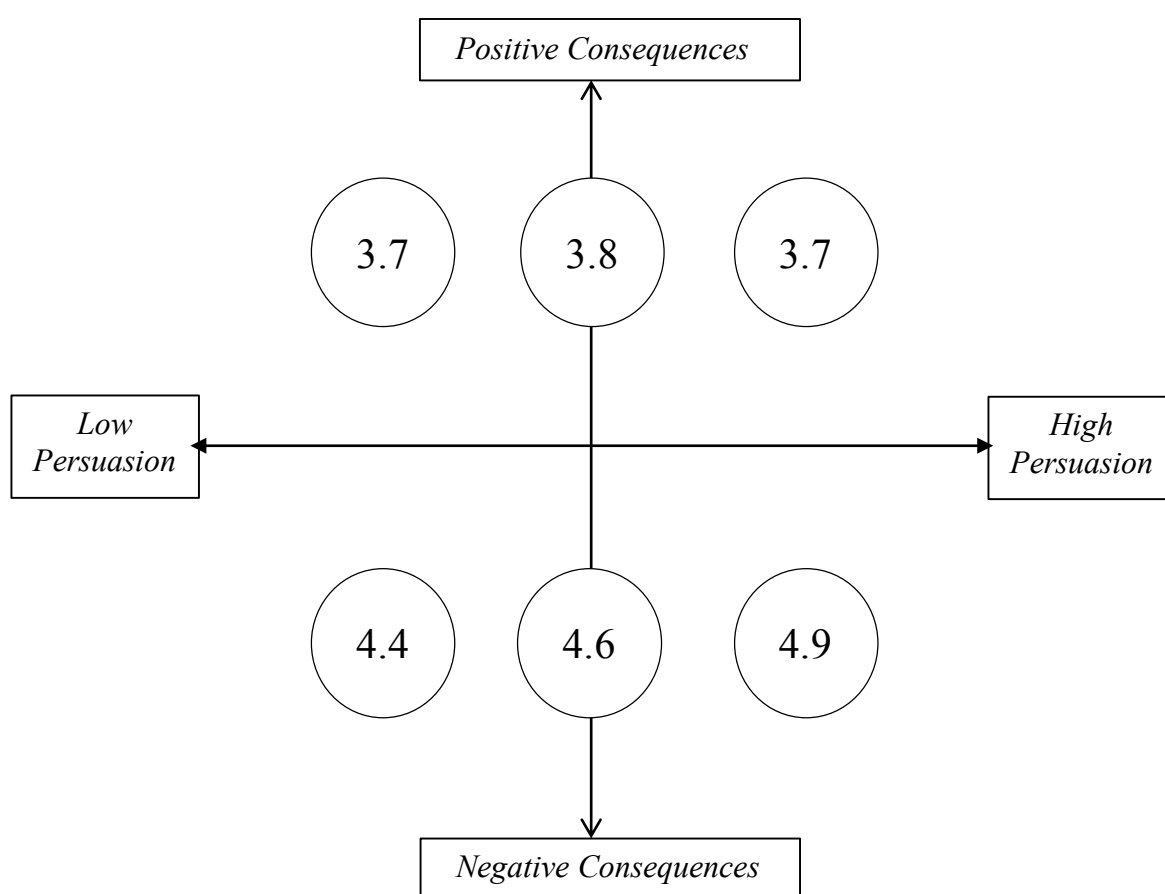


Figure 1: Mean responses for Consequences (negative to positive) x Persuasiveness (low to high)

These results suggest that participants are in fact morally sensitive to marketing manipulation. The scenario receiving the highest degree of moral opprobrium was one that implied manipulation due to a combination of high persuasiveness/negative consequences. Consumer suspicion of manipulation is inherent to this condition, since the campaign is persuading the consumer to act against their own interests (e.g. take up smoking when they want to quit). These suspicions either do not exist or were not seen as problematic by participants when they were faced with a high persuasiveness/positive consequences scenarios.

Moreover, these results indicate that consumers are potentially sensitive to manipulative marketing tactics, but only when they dislike the consequences of a campaign's success. Aside from their immediate significance to the marketing literature, these results have implications for an extension of the dual process theory of moral reasoning (Chaiken & Trope, 1999; Greene, Nystrom, Engell, Darley, & Cohen, 2004; Greene, Sommerville, Nystrom, Darley, & Cohen, 2001; Kahneman, 2003; Lieberman, Gaunt, Gilbert, & Trope, 2002; Posner, Snyder, & Solso, 1975) in two ways: by extending the application of this model for marketing ethics, and by exposing a key way in which rule-based and consequentialist moral values interact.

Future Work

As described above, Study 2 is designed to approach the issue of marketing manipulation directly. It follows an identical structure, with participants being asked to rate their moral opinions about the same 36 scenarios. The key difference for Study 2 is that each of the scenarios now describe an explicitly manipulative persuasive mechanism:

Company X created a mind-altering ray gun designed to persuade people who typically value healthy eating. The ray-gun is designed to persuade these people to buy their product: A healthy snack. Previous research has indicated that being hit with the beam of the ray gun generates only moderately persuasive effects: 10% of people who did not already intend to buy the product will now buy it.

This tight experimental control will allow us to make direct comparisons with the results of Study 1, selectively isolating the variable of manipulation. Data collection for Study 2 is ongoing, but the results of Study 1 present an intriguing possibility: that people may in fact be quite indifferent to their own manipulation by marketing messages provided they hold a positive view on the consequences of that manipulation.

The findings so far suggest that, while consumers generally claim to care about autonomy, they are either naturally more inclined to suspicion when they perceive the consequences to be positive or (perhaps more troublingly) care far less about the threat of manipulation when it is associated with beneficial consequences. These findings will be further refined and their implications clarified upon completion of our next short experimental study.

Conclusion

Our results indicate that people are generally consequentialist in their evaluation of marketing advertisements, and that the persuasiveness of a given campaign only impacts consumers' ethical judgments when it leads to negative consequences. Understanding this interaction is essential in order to develop useful codes of conduct for marketers and regulators who aim to preserve consumers against emerging threats to their autonomy. While theoretical constructs may provide some limited guidance in this regard, empirical study of how consumers actually behave is crucial if such codes are to have genuine practical purchase.

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Australia's Federal Policy Response to the Coronavirus Crisis

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The Asian Conference on Business & Public Policy 2020
Official Conference Proceedings

Abstract

To coordinate a nationwide response to the threat of the Covid-19 pandemic, and the resulting impact of Australia's first recession in nearly thirty years, on March 13 the Morrison government convened the National Cabinet. This comprises the Prime Minister, Scott Morrison, and the eight leaders of the States and Territories, and formally replaced the Council of Australian Governments as the principal body for coordinating national policy implementation in the Australian Federation. A critical policy analysis of the emergence of these new institutional structures demonstrates their significant influence on the federal government's policy response to the pandemic. The initial political stability enabled by this restructuring allowed a dramatic reversal in fiscal policy. After previously claiming to be on track for a budget surplus, the federal government undertook massive deficit spending. Central to this stimulus has been the 'Jobkeeper' wage subsidy to over 3 million workers. In monetary policy, the Reserve Bank of Australia cut interest rates to record lows, and embraced Quantitative Easing for the first time. While these policies received bipartisan support, the Morrison government has indicated its intention to shift back towards the neoliberal economic policy approach favoured by the Liberal-National Party (LNP) ruling coalition. There are also concerns over a potential decline of the role of Parliament in ensuring government transparency and democratic accountability, and of deeper economic inequality, as a result of the policy decisions of the Morrison LNP government in dealing with the ongoing crisis. Divisions between the Commonwealth government and the states over the duration of quarantine lockdowns and border closures strained the National Cabinet at times. Debate over the long-term policy response to the economic turbulence wrought by the pandemic is also set to dominate Australian politics towards the next national election, due by 2022.

Keywords: Public Policy, Australian Politics, Federalism

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Introduction

Since its Federation, the Commonwealth of Australia has confronted global challenges such as war and economic recession; it has again had to cope with a global pandemic. The formation of a National Cabinet in response to the coronavirus threat has resulted in far-reaching changes to the Australian federal system of democratic government, with implications for economic policy, party politics, and even foreign policy, beyond the immediate concerns of maintaining public health. While there have been tensions in the development of the National Cabinet, it has so far guided Australian society through the Covid-19 crisis with a high degree of success.

Australia's Pandemic Policy Response: the COVID-19 Threat to Australia

After the World Health Organization (WHO) confirmed the emergence of Covid-19 in Wuhan, China in December 2019, Australia's border control biosecurity authorities began monitoring the disease. On January 21, under the authority of the *Biosecurity Act 2015*, the coronavirus was officially classified as a Listed Human Disease with pandemic potential. The first case in Australia was confirmed on January 25, 2020, from a traveller arriving from China, which led to a travel ban on Chinese nationals from February 1. On February 18, the Department of Health released the Australian Health Sector Emergency Response Plan for Novel Coronavirus, to outline the government's overall response, action and communication strategy to the escalating health crisis (DoH, 2020a: 6-8).

On February 27, Liberal Prime Minister Scott Morrison declared the coronavirus outbreak was a national pandemic (Morrison, 2020a). Travel restrictions were steady escalated, to an overall travel ban, effective from March 25. As well as barring entry to non-citizens, Australian citizens have since been barred from travelling overseas, with only highly restricted exemptions, one of the strictest travel regimes of any developed democratic country (Commonwealth of Australia, 2020a).

Despite these restrictions, by the end of February, 23 cases were reported, mostly due to arrivals from China, but also from Iran, and from the *Diamond Princess* cruise ship quarantined in Japan. The first deaths and community transmissions began from early March. Australia's highly globalized economy and society was therefore highly vulnerable to the impact of the coronavirus. In its first major response to the looming economic impact of the pandemic, which had reached 156 cases, on March 12, Prime Minister Morrison announced a A\$17.6 billion stimulus package, primarily directed towards business cash flow and investment support, supplements to social security payments, and adversely affected regional areas (Morrison, 2020b).

Formation of the National Cabinet

The Morrison government was also pushed into more forceful action by the state governments, particularly those of the two most populous states, New South Wales (NSW), led by Liberal Premier Gladys Berejiklian, and Victoria, led by Labor Premier Daniel Andrews. Showing a higher sense of urgency and concern than Morrison, these two leaders signalled they would unilaterally impose strict lockdowns for their states, ahead of the national government, as the WHO declared a global pandemic on March 12. To avoid becoming upstaged by the Premiers, following a

fortuitous Coalition Of Australian Governments (COAG) meeting in Sydney on March 13, Morrison announced the formation of the National Cabinet, comprising himself, and the Premiers and Chief Ministers of the six states and two territories (Murphy, 2020).

Due to the states' frontline role in providing public health services, police and other emergency services, the National Cabinet would meet at least monthly, and more frequently if required, primarily by video-link, an extraordinary institutional governing mechanism, to best confront the challenges of these extraordinary times (Morrison, 2020c). The bipartisan nature of the National Cabinet was demonstrated in that a majority of five members are from the Labor Party, with four Liberals, including Morrison. Morrison nevertheless still did not include any members of the federal opposition, such as Labor leader Anthony Albanese (Albanese, 2020).

The constitutional status of the National Cabinet is rather ambiguous, as the conventions and rules of the regular cabinets of the federal and state governments, such as legally protected confidentiality and principles of cabinet solidarity once decisions are passed, may not necessarily apply. There is also dispute about whether the *Freedom of Information Act 1982* applies to National Cabinet decisions. Decisions of the National Cabinet are not binding, and have to be approved in legislation by the Australian Parliament to have full legal authority. Bureaucratic support is provided by the Department of the Prime Minister and Cabinet, and therefore its operations are accountable to scrutiny from parliamentary committees (Menzies, 2020). The Commonwealth is granted legislative powers regarding quarantine under Section 51(ix) of the Constitution; whether this grants the power to override a quarantine imposed by individual states is untested. Section 109 grants preference to the Commonwealth over the states if their laws are inconsistent, so the federal government's wishes would likely ultimately prevail (Commonwealth of Australia, 2012: 26, 49).

On March 17, a meeting was held by the National Security Committee (NSC) of the federal Cabinet, which along with the Cabinet Expenditure Review Committee, was a key decision-making body of the Commonwealth government's initial pandemic response. Based on the NSC's deliberations, on March 18 the Governor-General David Hurley declared a human biosecurity emergency, under the *Biosecurity Act 2015* (Commonwealth of Australia, 2020b). This authorised greater exercise of powers by the various levels of government to counter the pandemic, and was the most far-reaching example yet of the increasing use of 'delegated' legislation by Australian governments. This practice effectively creates new laws through government fiat, bypassing parliament, and concentrating greater power in the executive, with scrutiny left to the Senate Standing Committee for the Scrutiny of Delegated Legislation (Parliament of Australia, 2020a).

The National Cabinet is supported by medical advice from the Australian Health Protection Principal Committee (AHPPC), comprising the Commonwealth Chief Medical Officer, and the Chief Health Offices of the states and territories. Based on the advice of the AHPPC, on March 18, it was announced the National Cabinet had authorised extra measures to prevent community transmission, by screening overseas arrivals and mandating their self-isolation for a two-week period of quarantine, predominantly at hotels, which were by now emptying of tourists (DoH, 2020b).

Border Closures, Suspension of Parliament, and the NCCC

On March 20, as the states and territories declared their own states of emergency, the National Cabinet announced requirements for the AHPPC's social distancing rules. On March 22, NSW and Victoria announced closure of all non-essential services, and Western Australia (WA) and South Australia (SA) closed their borders, the first time that inter-state travel had been so restricted since the influenza pandemic of 1918-1919 (ABC, 2020a). In an emergency truncated session of Parliament held on March 23, the *Coronavirus Economic Response Package Omnibus Bill 2020* was passed unopposed by the House of Representatives and the Senate. It added \$66 billion worth of funding to the previous stimulus package, bringing the total value of support payments to business, workers, and welfare recipients to \$84 billion (Parliament of Australia, 2020b).

The House of Representatives and Senate then resolved to adjourn Parliament, with an estimated scheduled to resume from August 11. Parliamentary Committees would still meet via videoconferencing, such as the new Senate Select Committee on Covid-19, which undertook the important role of oversight of the national government's pandemic response. The parliaments of the states and territories underwent similar suspensions, with Tasmania resuming in August, and NSW in September (Horne, 2020).

Another significant development occurred on March 25, when to complement the medical role of the AHPCC, on March 25 Prime Minister Morrison announced the formation of the National Covid-19 Coordination Commission (NCCC), an expert panel appointed to advise on the required economic response to the pandemic. The NCCC's executive board, selected by the Prime Minister's Office, comprised two senior public servants, the Secretaries of the Department of Prime Minister and Cabinet and of the Department of Home Affairs, and six major corporate executives, including the Chair, former major mining company CEO Newville Power (NCC, 2020a).

On March 29, the National Cabinet announced strict requirements for social distancing, encouraging Australians to stay home, unless for non-essential purposes of employment, grocery shopping and health care. It was up to the states and territories to enforce these lockdown measures, which would go on to do so with often rigorous use of police powers against individuals and businesses, including heavy fines for non-compliance of up to \$45,000, and even potential arrest, with prison terms of up to six months if convicted. Australia has therefore had one of the most highly policed responses of the major democracies to the Covid-19 pandemic (Daly, 2020: 5-7).

Another facet of the Commonwealth government's response to the pandemic was the role of the Australian Defence Forces (ADF). The ADF has often been called out to assist state governments during natural disasters, such as floods, and major bushfires the previous summer. On April 1, Defence Minister Linda Reynolds announced *Operation COVID-19 Assist*, which mobilised nearly 3,500 personnel to assist state authorities. As well as medical services, the ADF has been used to support contact tracing, and assist police in maintaining quarantine restrictions and border closures,

although ADF personnel do not have any law enforcement powers (DoD, 2020).

Jobkeeper

As the economic effects of the lockdown measures began to have a sharp impact on the economy, the media widely reported large numbers of the suddenly unemployed waiting in long queues outside the government's Centrelink social security offices. The sudden demand for unemployment benefits and other government services was such that the Australian government's own website myGov was overwhelmed and crashed (Burgess, 2020). Shocked into action, on March 30 the Morrison government announced the implementation of the JobKeeper Payment, which was to become the core policy response to the pandemic-inflicted economic crisis (Morrison, 2020c).

Another special truncated one-day sitting of parliament passed legislation on April 8 for JobKeeper, a subsidy paid to employers to retain any full-time workers employed before March 1, 2020. All employees would receive \$1500 per fortnight, paid via their employer. Those already unemployed would receive a supplement to the JobSeeker Payment of an extra \$550 per fortnight. Initially budgeted at \$130 billion (later revised down to \$100 billion), this was the most expensive single measure of government spending in Australian history; JobKeeper raised the overall cost of the government's economic stimulus pandemic response to \$320 billion, 16.4% of GDP (Doran, 2020).

This record fiscal stimulus was complemented by yet another radical shift, in monetary policy. Following the practice embraced by other major central banks, the Reserve Bank of Australia (RBA) engaged in quantitative easing (QE) for the first time, commencing widespread purchasing of at least \$15 billion worth of securities in the secondary commercial market. The RBA also reduced the cash rate to a historic low of 0.25%, and set the yield for three-year government bond rates also at a historic low of 0.25%. A lending facility of \$90 billion to support commercial bank liquidity was also established (Pandey, 2020).

A Pandemic End to Neoliberalism?

The embrace of both massive deficit spending and QE showed how abruptly the LNP had been forced to shift away from the neoliberal, monetarist-aligned 'limited government' economic policy it had long advocated, but only irregularly pursued while in government. In his first budget in April 2019, new Treasurer Josh Frydenberg boasted the government's accounts would return to a \$7.1 billion surplus in the 2019-2020 financial year, even with significant income tax cuts (assuming favourable iron ore prices). The Morrison LNP government therefore claimed it was 'Back in black', with ever larger ongoing surpluses projected into the future (Grattan, 2019).

The unexpected coronavirus pandemic brought these ambitions undone. The small-government austerity policies favoured by conservative parties in developed democracies since the 1980s had been challenged by the 'Lehman Shock' 2008-2009 global recession, but not abandoned as the preferred approach by the Australian LNP. However, the whole artifice of neoliberal economic ideology was left thoroughly outdated and discredited by the vast, traumatic scale of disruption wrought by the Covid-19 pandemic (Bregman, 2020).

The Morrison government's deficit spending was in effect a return to the policy direction of the era of Australia's longest serving prime minister, Sir Robert Menzies. He had boasted in the 1950s and 1960s of his Liberal government's higher deficit spending, in a time before neoliberal monetarist economic ideology became dominant in conservative parties from the 1970s (Hutchens, 2020a). Alluding to the challenges of the post-virus recovery, Treasurer Frydenberg instead invoked conservative political idols Ronald Reagan and Margaret Thatcher as models for policy inspiration, inferring wage restraint, more 'flexible' working conditions, tax cuts, and deregulation favouring employers. This was yet another signal of the desire of the LNP to continue pursuit of its neoliberal ideology (Quiggin, 2020).

The neoliberal attitudes of the Morrison government were also reflected in the uneven implementation of JobKeeper, through deliberate exclusion of sectors perceived as politically unfavourable to the LNP. Around 3.5 million workers, through about 1 million employers, have been eligible to receive JobKeeper. However, despite attempts by Labor to pass amendments in Parliament, those on casual contracts, including foreign temporary workers, and freelance contractors such as artists and performers were deemed ineligible. Over 700,000 casual workers then ended up being fired by their employers. Funds allocated for the public broadcaster, the Australian Broadcasting Corporation (ABC) also continued to decline, forcing higher staff redundancies (Richardson, 2020).

JobReady and the Universities' Challenge

The university sector was also mostly excluded from JobKeeper, under the rationale that it was already partially public funded, although private and foreign universities were eligible. As the tertiary education sector faced the collapse of the highly lucrative international student market, the Morrison government's 'JobReady' training policy allocated nearly 40,000 new places for domestic students, to meet surging demand generated by the recession. To encourage more training in Science, Technology, Engineering and Mathematics (STEM) subjects, after gaining support for legislative changes from crossbench Senators from the minor One Nation and Centre Alliance parties, these courses will have their costs slashed. However, humanities, law, and commerce degrees are to at least double in cost, to about \$58,000 for a four-year Bachelor's degree (DESE, 2020). To make up for a revenue shortfall of up to \$16 billion, including \$7.6 billion in lost research funding, staff numbers at universities have been slashed, estimated at over 21,000 staff for 2020, around 10% of the tertiary education sector workforce (Karp, 2020).

By the middle of 2020, GDP had fallen by 7.3%, the largest quarterly drop ever recorded, with up to 20% of workers unemployed or underemployed. But, largely due to JobKeeper, household income, small and medium (SME) business income, and corporate profits actually increased. As consumption slumped by 13.2% in the June quarter, the level of savings dramatically increased: fivefold from the previous year for the business sector, to \$50 billion; and eightfold for households, to \$59.5 billion, again mostly due to the government's record deficit spending. Out of the 12 largest developed economies, Australia's fall in GDP, its first recession in nearly thirty years, was the third-best outcome, while having the fourth-lowest rate of 'second wave' deaths, at 26 per million, as of the start of September (Colebatch, 2020).

As the unemployment rate for the June quarter increased to 7.4%, nearly 2.3 million people had been kept out of poverty due to JobKeeper, and the supplements to JobSeeker. Poverty levels (\$416 weekly disposable income or less) among over 1.5 million JobSeeker recipients dramatically fell, from 67% to 7%, which clearly showed the vital importance of government spending during times of recession. Drawing back on these payments too soon would reverse these gains in poverty reduction (Tingle, 2020a). The Morrison government also encouraged individuals to make early withdrawals of up to \$10,000 each financial year from their retirement funds, with around \$34 billion being drawn upon by 2.8 million Australians through the Early Release Superannuation Scheme. (ATO, 2020).

The NFRC and the NCC

A full sitting of parliament resumed earlier than scheduled on June 10-18, with social distancing and other biosecurity measures introduced. This was an acknowledgement of the effective response of National Cabinet, which was credited for overseeing the reduction in infections, from 350 per day by the end of March, to under 20 per day by the end of April. By mid-May, the state governments had gradually eased lockdown restrictions, although they would soon be reimposed again, most firmly in Victoria, when the second wave of infections began to spike again from late June. After a series of quarantine failures in hotels and retirement homes, the Andrews Victorian state government re-imposed strict lockdowns in Melbourne from June 30, and the border with NSW was closed again on July 6 (Burrige, 2020).

It was announced on June 26 that as part of the new federal structures, where COAG was permanently replaced by the National Cabinet, National Federation Reform Council (NFRC) was to be formed. NFRC committees were planned to address seven key areas: Energy, Health, Housing, Population and Migrations, Rural and Regional, Skills, and Transport and Infrastructure. Backed by a range of task forces, reform committees and advisory groups, 28 ministerial forums and regulatory councils are to be established, to eventually promote reforms across the entire range of Commonwealth-state government functions, from Attorney-Generals' reform to gene technology. This demonstrates how the response to the coronavirus crisis has enabled a potentially far-ranging, long-reaching change to Australia's 'new federalism' (Saunders, 2020: 4-7).

On July 22, the NCCC was renamed the National Covid-19 Commission Advisory Board (NCC), as concerns mounted over its lack of transparency and accountability, and its apparent institutional biases towards the corporate sector, particularly the mining and other fossil fuel-based industries. One of the NCCC's members, former union leader, Labor government minister and superannuation industry representative Greg Combet resigned in June, after being the only one to declare a register of potential conflicts of interest (NCC, 2020b).

Concerns over this opaque nature of the NCC were highlighted when it recommended large subsidies promoting gas energy, instead of renewables, to promote economic recovery. Labor members of the Senate Covid Committee, particularly Senators Kristina Keneally and committee Chair Katy Gallagher raised their criticisms that the NCC risks subversion of Australian democracy, through a lack of transparency, having no legislative basis, and no independent appointment process. If the NCC is made an

advisory board to the federal cabinet, rather than just the National Cabinet, then it could be brought under the rules of cabinet confidentiality, and render it even more secretive about the potential conflicts of interest of its members (Hicks, 2020: 3-6).

These concerns over the NCC brought on calls by Labor, crossbench members of parliament, and retired senior judges for a Commonwealth Integrity Commission (CIC) or alternatively, an updated Australian Federal Integrity Commission (AFIC). An independent agency such as the CIC/AFIC would have a watchdog role of preventing and investigating corruption, and protecting whistle-blowers; there are such organisations at the state level, such as the NSW Independent Commission Against Corruption (ICAC), but no such body at the federal level. The Australian Greens Party and crossbench independents have been the most consistent instigators for a CIC/AFIC, but legislation to bring it about has so far been delayed by the LNP, who would not welcome greater scrutiny of recent various scandals, such as: abuse of funding for community sport projects, prosecution of government whistle-blowers, local party branch-stacking, dubious allocation of contractors, and inflated sales of government-owned land to Liberal Party donors (Australia Institute, 2020a).

The National Cabinet Under Strain

On July 10, the National Cabinet reduced the limit on Australian citizens allowed to return from 7,000 to 4,000 a week, to reduce the burden on the quarantine system. Nearly 400,000 expatriates returned since March, but over 30,000 have been left stranded due to the tight restrictions, and limited, expensive airline flights (Chamas, 2020). Meanwhile, the Northern Territory went ahead with its election in August, which saw the Labor Party retaining government, an important demonstration that democratic elections could still proceed, even amidst a pandemic (NTEC, 2020). The 46th federal Parliament also resumed for a two-week sitting from the end of August, ending a two month hiatus. This sitting was the first to have some MPs appear remotely by video-link, also showing the core institutions of Australian democracy could overcome the hazards wrought by the pandemic (Parliament of Australia, 2020c).

During this historic session, legislation was passed to extend JobKeeper and the JobSeeker supplement for another six months. Concerns remained though over the potential reduction of up to \$10 billion in aggregate demand from the economy, which could see an estimated 740,000 Australians pushed back into poverty, as the amount of these payments started to be incrementally reduced from the end of September, before the program is due to expire in March 2021. The Opposition and crossbench MPs were also critical of the Morrison government using its numbers to limit debate and ram through legislation weakening environmental protection (Tingle, 2020b).

Morrison's government also used this session of parliament to reassert its foreign policy powers, by introducing the *Foreign Relations (State and Territory Arrangements) Bill 2020*. This sought to reassert control over the states' engagements in foreign commercial agreements, such as Victoria's involvement in China's 'Belt and Road' transnational infrastructure initiative, and the sale by the Northern Territory government of the operation of the Port of Darwin to a Chinese-owned corporation. The pushback by the Commonwealth government against the states was therefore intertwined into the worsening diplomatic tensions between Australia and

China (Power and Tan, 2020).

Morrison became increasingly hopeful of having the all interstate borders open by Christmas, through mutual identification of Covid-19 ‘hotspots’ by state medical authorities. He announced after a National Cabinet meeting on September 4 that all the states and territories, except for WA, were ‘on board’ to re-open their borders in December. This indicated a departure from the full consensus approach on decision making inherited from COAG, which had so far been the operating principle for the National Cabinet as well (Hayne, 2020).

As international border restrictions may remain until the end of 2021, there was growing pressure from expatriates and federal Labor to raise the allowable number of Australian citizens returning from overseas. Morrison pressed the state and territory leaders in National Cabinet negotiations on September 18 to accede to raising the cap from 4,000 to 6,000 a week, rising gradually in stages into October. While international border control is the responsibility of the Commonwealth, unless federal resources and staff are solely used, such as the Howard Springs quarantine facility in the Northern Territory, it requires the cooperation of state health authorities to smoothly maintain entry and quarantine procedures. So, as well as internal borders, the international frontier has proved to be another major area of tension straining the National Cabinet (ABC, 2020b).

The October Budget

The influence of the NCC on the government’s policy agenda also became evident in September, when Morrison and Energy Minister Angus Taylor announced plans for a ‘gas-fired recovery’, with the government promoting, and even potentially having direct investment in construction of gas-fired power plants and pipelines (Taylor, 2020). This controversial decision was criticised by environmental groups, the Labor opposition, crossbench MPs, and even former Liberal Prime Minister Malcolm Turnbull; they advocated a renewable energy-based recovery, to wean the Australian economy off its heavy dependence on fossil fuels, as the Morrison government looked to be failing to meet its carbon emissions targets under the Paris Agreement (Butler, 2020).¹

Frydenberg’s next budget for FY2020-21 had been delayed until October 6, and delivered a record deficit of \$213.7 billion, the first of several deficits required to stimulate recovery, which would be required to stimulate the economy, funded by a gross public debt estimated to peak at \$966 billion in 2023-24. The budget brought forward income tax cuts worth \$50 billion, which disproportionately favour those on higher incomes (Australian Treasury, 2020). From FY2021-22, 88% of the tax cut benefits will go to the richest 20% of Australians, while the lowest 20% of income earners will not benefit. This will therefore tend to inhibit, rather than stimulate economic growth, as those on higher incomes are more likely to save these tax cuts, rather than spend them (Australia Institute, 2020b). A survey of senior economists recommended that spending on social housing, and permanently boosting JobSeeker would instead be more effective for an economic recovery (Martin, 2020).

¹ Turnbull was overthrown by Morrison as Liberal leader in a party room challenge in 2018, largely due to differences over climate change and energy policy.

As part of a series of subsidies and tax concessions favouring the corporate sector, the budget also introduced JobMaker, a hiring credit worth \$4 billion, to encourage businesses to hire younger workers under 35. There were also increased bonus payments for welfare recipients and retirees, and \$1 billion in research funding for the stricken universities (Grattan, 2020). To follow the October budget, the Morrison government indicated its interest in pursuing legislation aimed at enabling workplace ‘flexibility’ which favours employers over trade unions, investment tax breaks preferential to the fossil fuel industry over renewable energy, and other deregulation to benefit corporations and the banking industry (Jericho, 2020).

Frydenberg did at least indicate some shift away from austerity, stating that the government would not return to debt-and-deficit reduction until the unemployment rate was reduced to below 6%; it fell to 6.9% in the September quarter (Murphy and Karp, 2020). However, as the reduced rate of Jobkeeper came into effect, payroll job numbers reduced by around 115,000, indicating the decision to wind back the amount of employment subsidy payments was already having an adverse effect (Black, 2020). The Morrison government’s planned amendments to the *Fair Work Act*, to allow greater flexibility to employers, is also already facing determined opposition from the Labor Party, who claim it will lead to lower wages overall (Hutchens, 2020b).

Conclusions: The National Cabinet a Mostly Successful Model

Overall, the Australian National Cabinet model compares favourably with the pandemic response of other federal systems in other democracies. Japan has largely overcome coronavirus policy disputes between the national government and its prefectures, but has recently proved unable to blunt the ‘third wave’ surge in cases (Mark, 2020). Canada has performed relatively well, whereas the relationship between the Trump administration and the States was often dysfunctional, resulting in the United States suffering the highest death toll in the world (Beauchamp, 2020).

The operation of the National Cabinet has nevertheless so far shown how Prime Minister Scott Morrison’s Commonwealth government has been constricted in its response to the pandemic when confronted with the Premiers, who are determined to uphold the public health environment of their states, particularly through border closures. Despite these divisions, both the federal and state levels of government have enjoyed majority support ratings overall for their handling of the pandemic (Wilson et al, 2020). The Labor government of Chief Minister Andrew Barr was returned in a landslide victory in the Australian Capital Territory election on October 17 (Thomas, 2020). The Queensland election on October 31 saw the Palaszczuk Labor government returned with an increased majority (Nothling, 2020).

Case numbers continued to drop significantly, especially in Melbourne, due to the second wave lockdown imposed for three months by the Andrews government, one of the longest endured in the world. The Morrison government, business groups, and their conservative media supporters became increasingly frustrated with the Victorian government’s ‘Roadmap to Recovery’, of only very gradual easing from October, depending on progress suppressing outbreaks (Hitch, 2020a). However, Premier Andrews’ approach appeared to be vindicated, when on October 26, no new cases or deaths were reported, which finally allowed the lockdown to be lifted (Duckett and Crowley, 2020).

Small-scale outbreaks, largely due to quarantine failures have been reported, but successfully contained. As of December 11, 2020, there have been a total of 28,000 COVID-19 cases in Australia, including an estimated 47 active cases, and 908 deaths (DoH, 2020c). A National Cabinet meeting on November 13 confirmed all state borders were on schedule to re-open by Christmas. GDP growth of 3.3% was reported for the September quarter, which indicated economic recovery was already under way, although the RBA Governor warned it would be uneven and drawn out, as interest rates were cut again to a record low of 0.1% (Chalmers and Clayton, 2020). The final of the 31 National Cabinet meetings for the year was held in-person in Canberra, on December 11 (with WA Premier Mark McGowan attending remotely), which discussed a vaccine rollout plan, and coincided with the first meeting of the NFRC (Hitch, 2020b).

The National Cabinet model has reshaped the operation of the Australian Federation, but dealing with the stresses of the coronavirus has also led to significant strains in Commonwealth-State relations. These tensions within the National Cabinet have become more politicised as the crisis dragged on, as Morrison was increasingly critical of the Labor governments in Victoria, Queensland and WA, while praising the LNP government of NSW (Brent, 2020). However, there seems little the Commonwealth can do to pressure Premier Andrews and the other state and territory leaders from easing restrictions to a faster timetable, which shows the limitations of the National Cabinet structure. The balance of power in the Australian Federation has therefore shifted back in favour of the state and territory governments, in these unique and challenging times of a long-term, ongoing pandemic (Grattan, 2020).

Australia's Covid-19 response is therefore widely regarded as highly successful overall, with relatively low rates of infections and deaths, and fairly good testing rates. Before a vaccine becomes available, the Australian economy and society in general will remain burdened with restrictions, particularly those on international travel, even after the interstate barriers are eventually fully lifted. Should the post-pandemic economic recovery prove to be fairly rapid, the LNP will remain in its advantageous position over Labor towards the next national election, due in 2022. If the inequitable effects of the deepest recession since the Great Depression, and the traumas of the most severe public health crisis in a century are drawn out and lingering, then the Morrison government's handling of Australian federalism may come into sharper criticism, with less favourable electoral consequences.

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Factors Contributing to Recommendation Intention on Full-time and Part-time Job Websites

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The Asian Conference on Business & Public Policy 2020
Official Conference Proceedings

Abstract

Websites are the gateway to consumers' purchasing behavior in all industries, and effective website design contributes significantly to companies' competitiveness. This tendency is particularly dominant in recruiting human resources. Consumers browse recruitment websites that aggregate information from many companies, then select and apply for jobs. This study hypothesizes that the required website elements are different for full- and part-time job seekers, a topic that few studies have discussed to date. To this end, an online survey was conducted with men and women in their 20s to 50s, who found employment through a recruitment website in Japan. Factors contributing to the recommendation intention were evaluated using the logistic regression model. As a result, "detailed search according to experience/skills" and "security of personal information" for full-time jobs, and "easy registration/application" and "amount of photos in job information" in the part-time were extracted. The former should emphasize recruitment of suitable candidates, and the latter should emphasize ease of use. If companies are unaware of the important elements, information is congested, making the website difficult to use. It is important to design such websites based on the implications of this study, as consumers will immediately discontinue using the service if they find it unsuitable.

Keywords: AISAS, Recruitment Website, Job Change, Owned Media, Quantity and Quality of Information, Usability, Information Search Function, Reliability

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Introduction

Nowadays, websites have become an important point of contact with consumers in all industries. As shown in the AISAS (Attention → Interest → Search → Action → Share) behavior model (Kono, 2009), consumers search for the products/services they are interested in. In general, media are classified into three types: paid media represented by advertising, owned media represented by word of mouth (WoM) via SNS, and owned media represented by corporate websites (Lovett & Staelin, 2016). Of these media, consumers search for both types of owned media. Earned media is more noticeable in terms of its influence on consumer behavior (Bone, 1995; Kato & Tsuda, 2018). This is because WoM, which is posted without commercial intention by consumers who have actually experienced products/services, is highly reliable. However, earned media cannot be directly managed by companies. To improve the quality of earned media, it is extremely important to improve the quality of products/services and experience.

Satisfaction with the experience of the website fosters loyalty to the company, and generates positive WoM (Casaló, Flavián, & Guinaliú, 2008). In addition, click and mortar companies that provide excellent website experiences increase inflows to physical stores (Constantinides, 2004). Therefore, in customer relationship management (CRM), websites are an inseparable consumer contact point (Petre, Minocha, & Roberts, 2006; Venkatesh & Agarwal, 2006).

Currently, in academic research, the factors of effective websites have been studied from the viewpoint of many industries. This study focuses on the recruitment website. In recruitment, websites have a stronger impact on job seekers than printed job advertisements (Baum & Kabst, 2014). A recruitment website is a service that has the function of matching job seekers with companies seeking human resources. Job information is collected from many companies and provided to users. When a user finds job information that suits them, they can apply to a company online. The basic business model is the “posting billing method” in which the cost is collected from the companies when the information is posted, or the “hiring billing method” in which the cost is collected when the hiring is decided. In other words, job seekers can use the service for free. The idea of this study is that although there are common factors in full- and part-time jobs, different factors are required. This point has not yet been fully discussed. Therefore, the factors that contribute to the recommendation intention by employment type were clarified for the aforementioned recruitment website. This study suggests that it is important to consider the design of the website depending on the characteristics of the target consumer even within the same industry.

Effective Factors for Websites

Effective factors for websites have been reported in many industries, and can be broadly divided into the following four categories. The first is quantity and quality of information. Since websites are where official information from companies can be provided, quantity and quality naturally affect satisfaction (Gao, Zhang, Wang, & Ba, 2012; Gillenson & Sherrell, 2002). For example, Amazon’s mission is “Earth’s most customer-centric company.” Its mission is “where customers can find and discover anything they might want to buy online, and endeavors to offer its customers the lowest possible prices,” which means that their extensive assortment is competitive

(Amazon, 2020). In addition, a study on Airbnb found that information quality, media richness, and rating volume were important precursors of purchasing behavior (Chen & Chang, 2018).

The second is usability. Usability is an important factor not only in attracting but also retaining consumers (Green & Pearson, 2011). Factors such as being easy to understand, simple to use, easy to find the information on IT company websites (Flavián, Guinalú, & Gurrea, 2006), perceived website usability on electronic bus ticket sales services (Belanche, Casaló, & Guinalú, 2012), design that can be judged quickly on tourism websites (Kim & Fesenmaier, 2008), and so on have been highlighted.

The third is the information search function. In terms of the quantity of information, there is a risk that a large amount of information will have a negative effect. When consumers are presented with an amount of information that exceeds their cognitive ability, information overload occurs, rendering accurate selection difficult (Herbig & Kramer, 1994; Scheibehenne, Greifeneder, & Todd, 2010). Although the amount of information processed by consumers and accuracy of decision-making show positive correlations up to a certain value, they decline when this threshold is exceeded (Eppler & Mengis, 2008). If there are too many choices, they are not actively compared, and there is a tendency for the consumer to select one through the elimination method (Timmermans, 1993). In fact, a study on the Japanese automobile industry found that increasing the number of option options did not change consumers' willingness to pay (Kato & Tsuda, 2020). To eliminate information overload, a search function that can quickly extract the desired information from a large amount of information is useful. The effect of the search function that can acquire information according to needs has been confirmed on apparel sales websites (Kim & Niehm, 2009) and travel websites (Bai, Law, & Wen, 2008).

The fourth is reliability. Gaining consumer trust is essential to success in the web-based B2C market (Olsina, Lafuente, & Rossi, 2001; Roy, Dewit, & Aubert, 2001). In particular, security and privacy have a greater impact on consumers' purchase intentions (Ranganathan & Ganapathy, 2002). In addition to content relevance and readability, reliability is also a factor that contributes to purchase intentions on Amazon (Lee & Kozar, 2012).

In a study on recruitment websites, the following four factors have been reported (Eveleth, Stone, & Baker-Eveleth, 2018; Gregory, Meade): quantity and quality of information, usability, information search function, and reliability (Gregory, Meade & Thompson, 2013; Keramati & Salehi, 2013; Priyadarshini, Sreejesh, & Jha, 2019; Sylva & Mol, 2009; Thompson, Braddy, & Wuensch, 2008).

Methodology

This study clarifies the effective factors for each employment type on a recruitment website in Japan. The recommendation intention is adopted as the objective variable as it is a representative index of loyalty and can be determined without depending on the industry. For example, in the automobile industry, which has a long replacement cycle, it is difficult to determine consumers' repurchase intention (Kato, 2019). Even

if the consumer changes jobs, it will be difficult to immediately consider the next use of a recruitment website.

This study used the “Oricon Dataset” (Oricon ME Inc., 2019), provided by Oricon ME Inc. via the IDR Dataset Service of the National Institute of Informatics. As a third-party organization, Oricon regularly conducts satisfaction surveys for people who use the product/services of various industries. The current study used data obtained from the following two surveys : (a) an online survey conducted from March 22 to April 2, 2018 for those who changed jobs using the recruitment website within 3 years from the date of the survey and worked as full-time employees, (b) an online survey conducted from March 25 to April 2, 2018 for those who changed jobs using the recruitment website within 3 years from the date of the survey and worked as part-time employees. The sample size is 1,793 for the former and 3,110 for the latter.

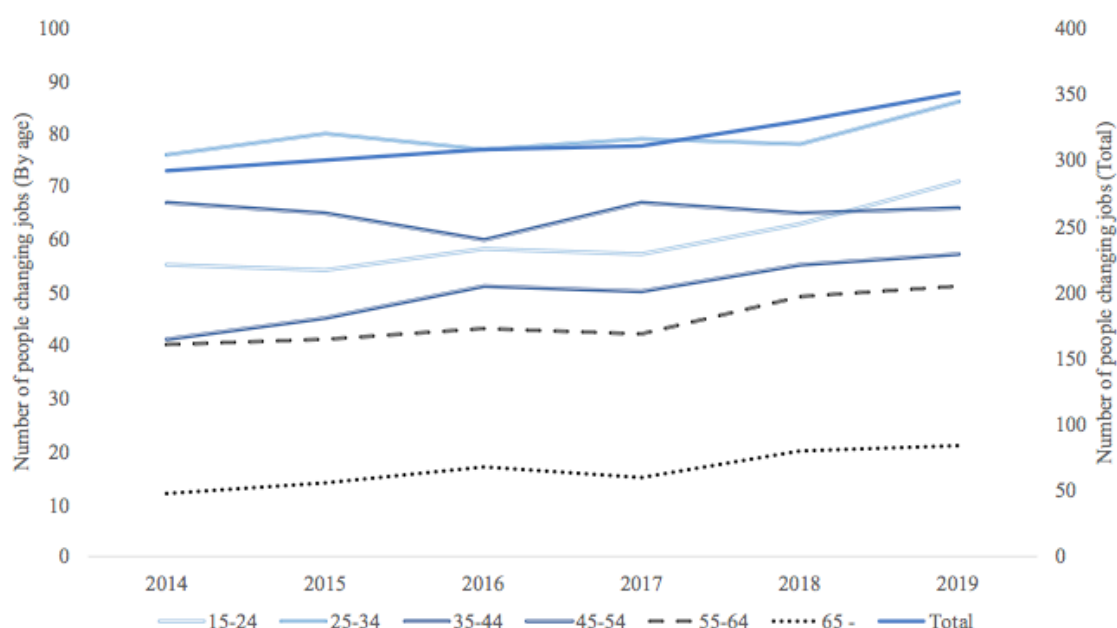


Figure 1: Changes in the number of people who have changed jobs by age group. (Statistics Bureau of Japan, 2020)

Gender	Age	Raw Data		Employment type balanced data		Japanese Population (unit: thousand)		Weighted Data	
		Number	Rate	Number	Rate	Number	Rate	Number	Rate
Male	20s	331	7.6%	235	7.1%	6,516	10.6%	211	10.6%
	30s	405	9.4%	359	10.9%	7,275	11.8%	236	11.8%
	40s	498	11.5%	462	14.0%	9,373	15.2%	304	15.2%
	50s	257	5.9%	226	6.8%	8,160	13.2%	264	13.2%
Female	20s	1,280	29.6%	907	27.5%	6,113	9.9%	198	9.9%
	30s	786	18.1%	575	17.4%	7,028	11.4%	228	11.4%
	40s	538	12.4%	366	11.1%	9,147	14.8%	296	14.8%
	50s	236	5.4%	170	5.2%	8,118	13.2%	263	13.2%
Total		4,331	100.0%	3,300	100.0%	61,730	100.0%	2,000	100.0%

Table 2: Respondent attributes.

Item	Breakdown	Number	Item	Breakdown	Number
Gender	Male	1,015	Marriage	Kyusyu	116
	Female	985		Unmarried	996
Age	20s	409	Industry	Married	1,004
	30s	464		Restaurant	471
	40s	600		Manufacturer	314
	50s	527		Service	316
Area	Hokkaido	69	Construction	258	
	Tohoku	64	Education	201	
	Kanto	1,086	Hospital	172	
	Chubu	203	Retail	161	
	Kinki	388	Finance	107	
	Chugoku	58	Employment	Full time	1,046
	Shikoku	16		Part time	954

Table 3: Number of people by industry and employment type.

Industry	Full-time		Pull-time		Total	
	Number	Ratio	Number	Ratio	Number	Ratio
Restaurant	44	4.2%	427	44.8%	471	23.6%
Manufacturer	260	24.9%	54	5.7%	314	15.7%
Service	152	14.5%	164	17.2%	316	15.8%
Construction	162	15.5%	96	10.1%	258	12.9%
Education	90	8.6%	111	11.6%	201	10.1%
Hospital	133	12.7%	39	4.1%	172	8.6%
Retail	98	9.4%	63	6.6%	161	8.1%
Finance	107	10.2%	0	0.0%	107	5.4%
Total	1,046	100.0%	954	100.0%	2,000	100.0%

As shown in Figure 1, the job change market in Japan is expanding. By age group, the majority are in their 20s to 40s. This study targeted 4,331 people in their 20s to 50s, as shown in Raw Data in Table 1. Next, to evaluate full- and part-time equally, 1,650 people from each employment type, a total of 3,300 people, were extracted via random sampling. Weighting was then performed according to the distribution of Japanese population statistics (Statistics Bureau of Japan, 2019), and 2,000 people were extracted. It should be noted that since the target number of people was insufficient for men and women in their 50s, repeated extraction was performed.

Table 2 reports the attributes of the 2,000 respondents. There are eight industries: restaurant, manufacturer, service, construction, education, hospital, retail, and finance. As shown in Table 3, the distributions of full- and part-time differ greatly by employment type. Manufacturers account for the highest proportion of companies recruiting for full-time positions, while restaurants have the highest proportion of part-time positions.

The survey data used herein cover following 10 items: (1) recommendation intention, (2) gender, (3) age, (4) residential area, (5) marital status, (6) changed job to a new industry, (7) elapsed time since changing jobs, (8) satisfaction with the features of the website, (9) satisfaction with the job, (10) WoM experience about the job change. As

shown in Table 4, all variables were made into dummy variables. For (1) and (8), a score of 8 or more took the value of 1. As shown in Table 5, item (8) is composed of 10 items corresponding to the four categories of quantity and quality of information, usability, information search function, and reliability, which were adopted in previous studies. (1) and (8) were evaluated on a scale of 1 to 10 (e.g., 1: very unsatisfied, 10: very satisfied).

A logistic regression model was adopted as the evaluation method. As shown in Table 4, since there are many explanatory variables, the variables were selected using the stepwise method. Dummy variable criteria were not used when building the model. In this way, a model for each employment type was constructed, and was used to evaluate the factors that contribute to the recommendation intention. The analysis environment was R, which is statistical analysis software, and the stepwise method used the stepAIC function of the MASS package.

Table 4: Variable list and descriptive statistics value.

No	Variable	Description (Dummy variable)	Breakdown	Full-time		Part-time		Total	
				Mean	SD	Mean	SD	Mean	SD
1	Recommendation	Recommendation intention		0.143	0.351	0.155	0.362	0.149	0.356
2	Female	Gender	Female	0.278	0.448	0.727	0.445	0.493	0.500
3	Age_20s*	Age	20s	0.160	0.366	0.254	0.435	0.205	0.403
4	Age_30s		30s	0.285	0.452	0.174	0.379	0.232	0.422
5	Age_40s		40s	0.311	0.463	0.288	0.453	0.300	0.458
6	Age_50s		50s	0.245	0.430	0.284	0.451	0.264	0.441
7	Area_Hokkaido	Residential area	Hokkaido	0.023	0.150	0.047	0.212	0.035	0.183
8	Area_Tohoku		Tohoku	0.026	0.159	0.039	0.193	0.032	0.176
9	Area_Kanto*		Kanto	0.585	0.493	0.497	0.500	0.543	0.498
10	Area_Chubu		Chubu	0.108	0.311	0.094	0.292	0.102	0.302
11	Area_Kinki		Kansai	0.170	0.376	0.220	0.415	0.194	0.396
12	Area_Chugoku		Chugoku	0.032	0.175	0.026	0.160	0.029	0.168
13	Area_Shikoku		Shikoku	0.009	0.092	0.007	0.085	0.008	0.089
14	Area_Kyusyu		Kyusyu	0.048	0.213	0.069	0.254	0.058	0.234
15	Marriage	Marital status	Marriage	0.518	0.500	0.484	0.500	0.502	0.500
16	Industry_Restaurant*	Job change industry	Restaurant	0.042	0.201	0.448	0.498	0.236	0.424
17	Industry_Manufacturer		Manufacturer	0.249	0.432	0.057	0.231	0.157	0.364
18	Industry_Service		Service	0.145	0.353	0.172	0.377	0.158	0.365
19	Industry_Construction		Construction	0.155	0.362	0.101	0.301	0.129	0.335
20	Industry_Education		Education	0.086	0.281	0.116	0.321	0.101	0.301
21	Industry_Hospital		Hospital	0.127	0.333	0.041	0.198	0.086	0.280
22	Industry_Retail		Retail	0.094	0.292	0.066	0.248	0.081	0.272
23	Industry_Finance		Finance	0.102	0.303	0.000	0.000	0.054	0.225
24	Time_6months*	Elapsed time	6months	0.343	0.475	0.436	0.496	0.388	0.487
25	Time_1year	since changing jobs	1year	0.240	0.427	0.242	0.429	0.241	0.428
26	Time_2year		2year	0.221	0.415	0.204	0.403	0.213	0.410
27	Time_3year		3year	0.196	0.397	0.117	0.322	0.159	0.365
28	Feature01	Satisfaction with	Number of job information	0.169	0.375	0.201	0.401	0.185	0.388
29	Feature02	the features of the website	Accuracy of job information	0.134	0.341	0.154	0.361	0.144	0.351
30	Feature03		Amount of photos	0.102	0.303	0.122	0.327	0.112	0.315
31	Feature04		Information update frequency	0.122	0.328	0.144	0.351	0.133	0.339
32	Feature05		Ease of registration	0.118	0.322	0.193	0.395	0.154	0.361
33	Feature06		Ease of application	0.188	0.391	0.281	0.450	0.233	0.423
34	Feature07		User-friendly design	0.118	0.322	0.161	0.368	0.139	0.346
35	Feature08		Detailed search according to experience/skills	0.120	0.325	0.150	0.357	0.134	0.341
36	Feature09		Detailed search according to work location	0.116	0.320	0.168	0.374	0.141	0.348
37	Feature10		Security of personal information	0.118	0.322	0.127	0.333	0.122	0.327
38	JobSatisfaction1	Satisfaction with the job	Job Description	0.128	0.334	0.197	0.398	0.161	0.368
39	JobSatisfaction2		Amount of work	0.119	0.323	0.188	0.391	0.152	0.359
40	JobSatisfaction3		Training system	0.098	0.298	0.136	0.343	0.117	0.321
41	JobSatisfaction4		Salary	0.103	0.304	0.165	0.371	0.133	0.339
42	JobSatisfaction5		number of days off	0.172	0.378	0.256	0.437	0.212	0.409
43	WoM01	Word-of-mouth experience	Talk positive contents in real	0.233	0.423	0.210	0.407	0.222	0.416
44	WoM02	about the job change	Talk negative contents in real	0.053	0.223	0.067	0.250	0.060	0.237
45	WoM03		Listen positive contents in real	0.104	0.306	0.124	0.329	0.114	0.317
46	WoM04		Listen negative contents in real	0.049	0.215	0.083	0.276	0.065	0.247
47	WoM05		Talk positive contents in digital	0.062	0.242	0.057	0.231	0.060	0.237
48	WoM06		Talk negative contents in digital	0.018	0.134	0.017	0.128	0.018	0.131
49	WoM07		Listen positive contents in digital	0.065	0.247	0.082	0.274	0.073	0.260
50	WoM08		Listen negative contents in digital	0.027	0.161	0.047	0.212	0.037	0.188

*: Dummy variable criteria

Table 5: Evaluation features of the website.

No	Category	Feature
1	Quantity and quality of information	Amount of job information
2		Accuracy of job information
3		Amount of photos in job information
4		Information update frequency
5	Usability	Ease of registration
6		Ease of application
7		User-friendly design
8	Information search function	Detailed search according to experience/skills
9		Detailed search according to work location
10	Reliability	Security of personal information

Table 6: Results of logistic regression model.

Variable	Full-time			Part-time		
	Odds Ratio	SE	p-value	Odds Ratio	SE	p-value
(Intercept)	0.025	0.213	0.000 ***	0.013	0.287	0.000 ***
Industry_Service				2.626	0.311	0.002 **
Feature01	2.475	0.292	0.002 **	2.872	0.282	0.000 ***
Feature02	1.894	0.306	0.037 *			
Feature03				2.170	0.304	0.011 *
Feature05				2.437	0.278	0.001 **
Feature06				4.722	0.315	0.000 ***
Feature07	1.996	0.332	0.038 *			
Feature08	4.962	0.328	0.000 ***			
Feature09	2.563	0.331	0.004 **			
Feature10	4.238	0.310	0.000 ***			
JobSatisfaction1	2.995	0.275	0.000 ***	2.691	0.384	0.010 *
JobSatisfaction2				0.439	0.387	0.033 *
JobSatisfaction3				3.111	0.340	0.001 **
JobSatisfaction4				2.063	0.324	0.026 *
WoM01	4.591	0.251	0.000 ***	3.295	0.282	0.000 ***
WoM04	0.092	0.784	0.002 **	0.506	0.507	0.178
AIC	520.773			484.459		
McFadden	0.420			0.443		
Adj.McFadden	0.392			0.409		

Results and Discussion

As shown in Table 6, in both cases, McFadden's pseudo-R squared exceeded 0.4, confirming the validity of the model. The factor common to the two employment types is the most basic, that is, the amount of job information (Feature 01). In full-time, the odds ratio of detailed search according to experience/skills (Feature08) and security of personal information (Feature10) are remarkably high at 4 or more. Full-time job seekers tend to be professional and look for jobs with better conditions. Therefore, it is important to be able to search for companies that match experience and skills in detail. Given that satisfaction with job description (Job Satisfaction 1) also contributes, it is clear that this factor should never be overlooked in website design. In addition, since it is common to search for a new job while continuing the current job, compliance with personal information is an indispensable factor. As other factors, accuracy of job information (Feature02), user-friendly design (Feature07), and detailed search according to work location (Feature09) are features that appear only in full-time.

On the other hand, in part-time, the odds ratio of ease of application (Feature 06) is 4 or more, which is the largest factor and the ease of registration (Feature 05) also contributes. The reason is that part-time job seekers tend to have lower commitments than full-time job seekers. In other words, part-time job seekers need the process of searching for a job to be as easy and convenient as possible. Furthermore, amount of photos in job information (Feature 03) is a feature of part-time only. In full-time, we search for conditions that match one's skills and experience in detail, but in part-time, visual information that conveys the atmosphere of the workplace is important.

From other viewpoints, positive WoM (WoM01) in real life has a large -positive effect, while hearing negative views (WoM04) has a large negative effect. From this result, it can be understood that even now that IT has developed, WoM via acquaintances in the real world has a greater influence than digital WoM. Gender, age, place of residence, industry, and so on were not significantly affected.

The limitation of this study is that the evaluation is based only on the survey results at one time point. Effective factors of websites may change due to technological progress and social changes. Evaluation at multiple time points is a topic for future research.

Conclusion

This study clarified the factors contributing to the recommendation intention by employment type on a recruitment website in Japan. As a result of evaluation using a logistic regression model, detailed search according to experience/skills and security of personal information were effective for full-time, and ease of registration/application and amount of photos in job information were effective for part-time. Full-time job seekers are looking for better condition jobs with expertise, so the detailed search function is effective. In addition, strict management of personal information is extremely important because they seek/change jobs while working in their current company. On the other hand, part-time has a lower commitment than full-time, so ease of procedure and visual information that conveys the atmosphere are required. In this way, this study suggests that it is important to consider the design of

the website depending on the target consumer characteristics even in the same industry.

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Transformational Leadership as a Pedagogical Approach in Design Education

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The Asian Conference on Business & Public Policy 2020
Official Conference Proceedings

Abstract

Education leading to wisdom has been acknowledged as a key transformational experience since time immemorial, and the process is organic. Ideal interaction between the teacher and the learner has always been that of a mutual experience which impacts and elevates both the stakeholders involved. When it comes to design education, educators across the globe constantly experiment with various pedagogical methods, to improve the learning experience of their learners. Educators hold not only the ability to ensure that their industry domain continues to get equipped with a better talent pool, but also contribute to the upholding of social values. This is where the concept of transformational leadership emerges. It enables an approach that causes an internal change in individuals as well as social systems. This research examines if the method of transformational leadership can practically be used as a pedagogical tool in design education while meeting the formal objectives of higher education in India. The methodology for this study is built around an interactive discussion with all stakeholders and to examine the possibilities. It begins with an objective to understand the concept of transformational leadership and its possible role in education. It then observes the current system of education (based on discussions with tutors) to find out how they actually practice (if at all) using any such ways. The study finally aims to review the advantages and challenges of this method, culminating in proposing a model, which can create the possibility to implement this concept at a larger perspective.

Keywords: Pedagogy, Design Education, Transformational Leadership

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Introduction

Many design educators view teaching as an act of learning and transformation for students and themselves as well. They continually seek the most effective means to enhance the student learning experience, improve their outcomes and to make the students ready for the future. There are many models of learning which instructors incorporate in their teaching to get better results.

Leadership is a powerful tool to transform an organisation particularly in higher education to help broaden the vision, reach new horizons, and open the door of awareness (Beytekin, O.F., 2014) Tom Gallagher (2002), argued that leadership education "is not a singular focus," but instead "sits at the nexus of two disciplines, the art and science of leadership and the art and science of education". Thus these two disciplines can be merged in a symbiotic relationship to impact students at a deeper level.

It's difficult for students to understand leadership theories until they are in the field. Williams and Rosser (2008) argued that when students develop connections between the content and practical experiences in their lives, they can integrate the knowledge better. One way, therefore, to implement the theories about leadership is to model them in the classroom.

One approach to involve students in the classroom is to examine transformational leadership as a pedagogical model which will not only help the students to execute the theory, but also leads to a deeper understanding. As Robert E. Quinn said, "transformational teachers are those who turn ordinary students into extraordinary students" (Anding, 2005, p. 488).

Transformational leadership fosters a collaborative approach to problem-solving. Such leaders connect with the needs and motives of their followers and raise both the follower and leader to a higher level of motivation and morality (Bass, 1990).

Literature Review

Importance of Student-Teacher Relationship

Student-teacher relationships are critically important for influencing students' academic, social and emotional development. Students who perceive their teacher's support have better achievement outcomes (Boynton & Boynton, 2005; Spilt, Koomen, & Thijs, 2011; Skinner & Green, 2008). The nature of the learning environment plays an important role in developing a student's interest and engagement. When there is a sense of control and security in the studios, students get more engaged and approach learning with enthusiasm. Students become active participants in their own education (Skinner & Green, 2008; Maulana, Opdenakker, Stroet, & Bosker, 2013). Maintaining a positive student-teacher relationship will help students in achieving success in their final outcome. If the foundation for a good relationship is lacking, it can negatively impact student behaviour. They may resist rules and procedures, and may neither trust teachers nor listen to what they have to say if they sense that the teachers do not value or respect them (Boynton & Boynton, 2005).

Teachers hold an enormous amount of influence on students and can significantly impact the learning environment of students, which will affect their learning. The most powerful weapon teachers have when trying to foster a favourable learning climate, is a positive relationship with their students (Boynton & Boynton, 2005).

When teachers and students become more familiar with each other, it creates a sense of community (Brown, 2010). But it is also important to establish boundaries. Body language, voice inflection, and facial expressions are all key aspects of communication (Brown, 2010). Teachers should carefully consider their own behaviour from the perspective of students in order to ensure their words and action always form part of positive communication.

With a better understanding of the need for good student-teacher relationships in education, let us further review the available literature on transformational leadership.

Understanding Transformational Leadership

The term leadership has been studied extensively over the course of history. Transformational leadership is specifically defined as a leadership approach that causes a change in individuals and social systems. Bass (1990) describes four factors that make up transformational leadership (Image1):

- (a) Idealized influence
- (b) Inspirational motivation
- (c) Intellectual stimulation
- (d) Individual consideration

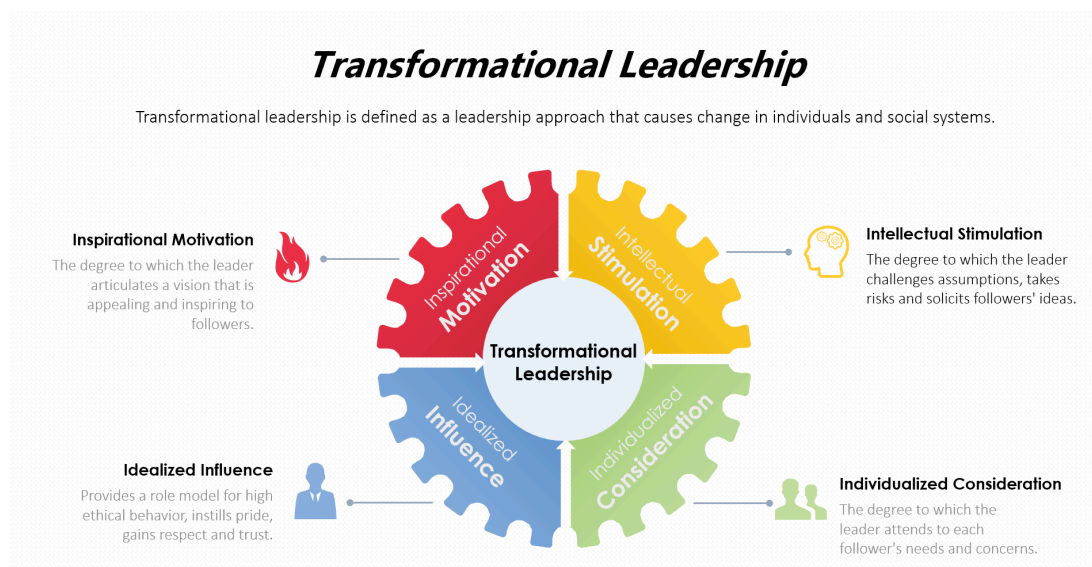


Image 1: Four factors that make up transformational leadership (Bass, 1990 (image sourced from online Transformational Leadership Workshop, 2020))

The leader who uses **idealised influence** provides their followers with a compelling vision. They are strong role models who can be trusted to do the right things. The leaders who use **inspirational motivation** have high expectations and build commitments to achieve the organisational vision which is appealing and inspiring to the followers. They motivate followers to go beyond their self-interest for achieving organisational goals. Leaders using **intellectual stimulation**, inspire followers to

challenge their own assumptions as well as that of the leaders. They take risks and encourage followers to find innovative ways to solve their problems. The leader who uses the fourth factor, **individual consideration**, creates a supportive climate by listening to individual needs and concerns of their followers and helping them to become completely realised.

Understanding of Transformational Teaching

Over the past few years, approaches to teaching in the classroom have changed considerably. The emergence of many learning concepts and teaching approaches, including active learning, student-centred learning, collaborative learning, experiential learning, and problem-based learning, has driven this progress. The term transformational leadership is, however, rarely used in higher education pedagogical discussions. This includes building dynamic relationships among teachers, students and a shared body of knowledge to encourage students in their learning and personal development. As per Tennant (2002), transformative education is "promoting awareness and fundamental change at the personal, relational, institutional, and global levels". Meziro & Associates (2000) define transformative learning as "the process by which we transform our taken-for-granted frames of reference to make them more inclusive, discriminating, open, emotionally capable of change and reflective so that they may generate beliefs and opinions that will prove more true or justified to guide action". As per Meziro, transformative learning occurs in one of four following ways: by elaborating on existing frames of reference, by learning new frames of reference, by transforming points of view, or by transforming habits of mind.

When transformational learning occurs, a student's prior belief, values and assumptions get significantly changed into world reality. As per Cranton (2006), the learning depends upon the establishment of a trustworthy and meaningful relationship between the instructor and the students. They both get to know each other from the inside out. According to Cranton and Carusetta (2004), authentic teachers have high self-awareness, develop deep relationships with learners, and engage in critical reflection of educational practice as well as critical self-reflection.

However, before we investigate the potential of transformational leadership as a valid pedagogy in design education in India, it is important to understand the need for transformational leadership in higher education through relevant literature review.

The need for Transformational Leadership in Higher Education

As per the current perspective within this communication era, higher education needs transformational leadership to replace hierarchical, bureaucratic management (Beytekin, O.F., 2014). Transformational leaders shift the motives, values and goals of the learners in various ways, which will lead to an improvement in their competencies and help them achieve better results. According to Rouché, Baker and Rose (1989), this is the most effective leadership style and is the principal contributor to the realisation of outcomes in colleges and universities. It has been proven that positive leadership (which is a part of transformational leadership) has the potential to greatly improve the teaching and learning environment in higher education (Benito, et al., 2019). The study confirms that positive leadership creates an active and enhanced environment in the classroom. It not only impacts the student positively (which is

seen in their behaviour and final outcomes of assignment) but also energises the teachers, who are empowered by the success of a positive climate in the class.

Objectives

The study will review the followings things:

1. To evaluate the advantages and challenges of transformational leadership faced by design educators (from a broader perspective) while implementing it.
2. To understand the responses of students on the implementation of transformational leadership as a teaching model.
3. To propose a framework of incorporating transformational leadership theory as a pedagogical tool in design education for the benefit of both students and teachers.

Research Methodology

To achieve the first objective, interviews of design educators were conducted. Twenty design educators (19 from India and 1 from the United Kingdom) with a range of five to thirty-three years of professional experience were interviewed for this study. They have taught in different disciplines of design at undergraduate and postgraduate level in more than 25 design colleges in India and five design colleges outside India.

To achieve the second objective, an online survey was conducted with design students of various disciplines. Total of 100 students participated in the survey from 7 different design institutes in India. The students are either presently enrolled or have studied design at an undergraduate and postgraduate level.

The third objective is intended to be achieved through cumulative analysis of the previous two objectives. This will lead to the development of transformational leadership model as an outcome of the research.

The perspective of Design Educators on Transformational Leadership

As a part of primary research, interviews were conducted to understand if design educators are consciously or unconsciously using the tenets of transformational leadership theory in their teaching methods, in face to face as well as online teaching sessions. In case they were aware of the method, they were asked to share their experiences and describe the advantages and limitations of the system. Where they had not tried or were only partially aware of the inclusion of this method (within their teaching), their views were collected based on the reservation and willingness to try this method in future. The outcome was quite interesting. Out of 20 participants, 45% had unconsciously tried using all the four factors of transformational leadership in their teaching. 40% had only partly applied the factors and had not given much importance to *Idealised influence* and *Individualised consideration*. The balance 15% participants were not willing to apply *idealised influence* and *individualised consideration* in their teaching methods (refer fig 1)

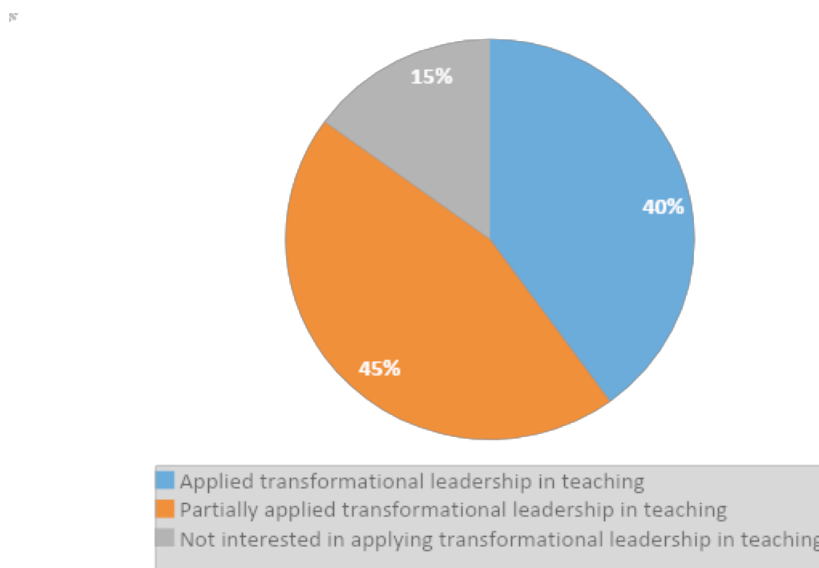


Figure 1: Pie chart represents the application of transformational leadership by design educators in their teaching

According to the interviewed design educators, who had consciously or unconsciously applied all four methods in their teaching, 100% had applied *inspirational motivation*, 82% *intellectual stimulation*, 45% *idealised influence* and 58% had applied *individual consideration* (refer fig 2). The graph below represents the proportional application of four elements of transformational leadership in their teaching.

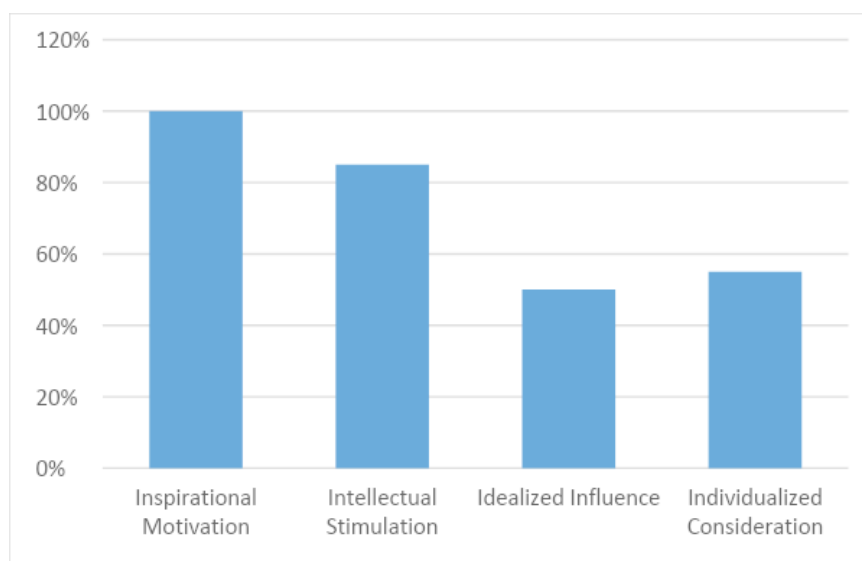


Figure 2: The graph represent the percentage of all the four factors of Transformational leadership applied by the participant educator in their classroom

Though they all agreed on potential advantages of using this method informally, they also had concerns for the more formal implementation of this method in the studio.

Advantages for Students

Followings are the advantages of transformational leadership for students identified by the interviewed design educators:

- **Autonomy-** 65% of educators indicated that students had started taking ownership of their work. Even in the juries, they accepted critical feedback and explained their work with more confidence, pride and dignity and this was well appreciated by the industry.
- **Respect for each other-** 75% educators responded that through constructive peer to peer feedback, juries and collaborative work, the students gained respect for each other.
- **Confidence-** 85% of educators agreed that by implementing all the four factors of the method in the classroom, students gained confidence in themselves as well as an improved sense of trust in their teachers.
- **Engagement and motivation-** 90% of educators said that once the students started getting more involved in their classroom activities, and once they gained more trust in their teachers, their engagement also increased proportionately. Their learning experience got enhanced, and they started to generate their own excitement and confidence to present their work to the industry.
- **Good listener-** 60% educators indicated that after practising *individualised consideration* with students, the latter demonstrated improved listening skills. They first listened and then responded, which clearly reflects the development of certain mature qualities like patience, keenness to understand the other side, to analyse someone else's viewpoint critically and to absorb and then respond.
- **Professional Approach-** With time, the students developed more maturity in their design thinking. 60% of educators said that the students start looking at their own work from the industry's perspective and therefore try to reach a final outcome based on the needs which the industry might expect from them.
- **Communication skill-** 55% of educators indicated that with their newfound confidence, the students communicated more vocally about their design and with more conviction. The educator encourages students to form their own viewpoints and create their own opportunities to express them. These methods thereby inculcated qualities like empathy and an ability to seek out possibilities within students.
- **Less student drop out-** 70% educators said that transformational teaching creates better learning experience in class, and the outcome has been a lesser number of dropouts.

The graph presented below shows the feedback given by the participant educators, discussing the advantages of transformational leadership in the class (refer fig 3)

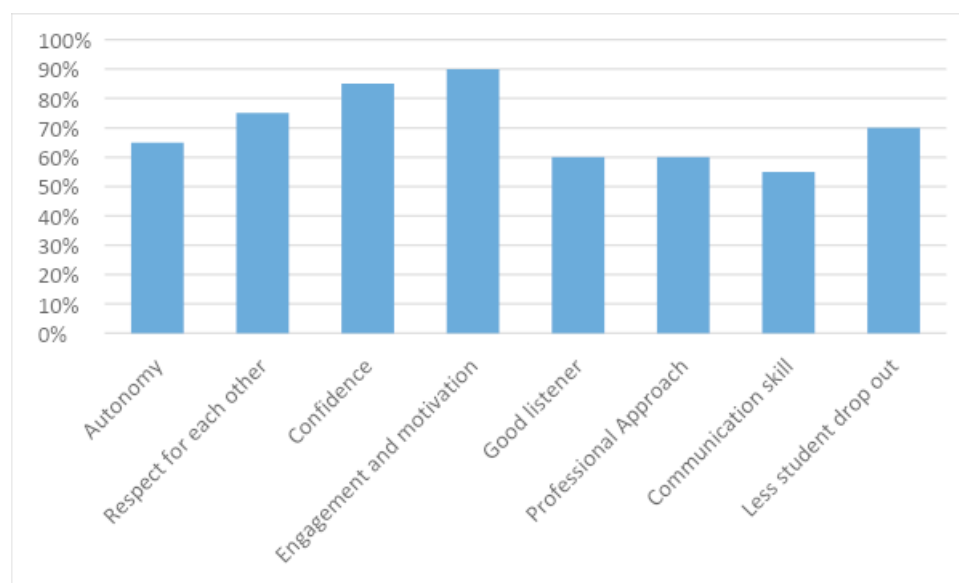


Figure 3: Feedback given by the participant educators, discussing the advantages of transformational leadership in the class

Advantages for Design Educators

- **Improved personal bond with students-** 90% design educators indicated that they had developed a better personal bond with students through the implementation of the method. This boosted their own confidence in both academic and personal spheres.
- **Developed capacity to take more risks-** With more student excitement and better engagement, 65% educators got further motivated to challenge the students towards producing better results.
- **Satisfaction-** 85% of design educators felt a sense of satisfaction when the students started delivering better work. A feeling of assurance of the semester ending with better, more improved outcomes is definitely more satisfying for any teacher.
- **Better student-teacher relationship-** For a teacher, the possibility of creating a calm, comfortable and predictable environment in the classroom is more likely through the practice of all four factors of transformational leadership. 80% of design educators indicated that they had developed a far better student-teacher relationship resulting in the creation of a positive environment in the classroom.
- **Developed empathy-** 60% of educators agreed that continued interactions with students and listening to their concerns develops empathy amongst the teachers.

The graph presented below shows the advantages of transformational leadership for design educators (fig 4) -

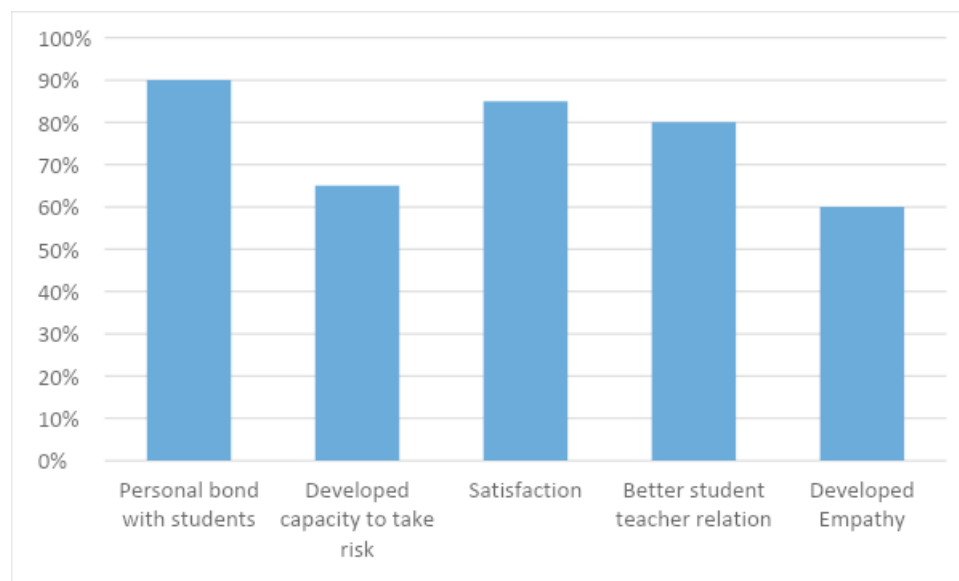


Figure 4: The graph showing the advantages of transformational leadership for the interviewed design educators

Challenges faced by Design Educators

Following are the challenges identified by the interviewed design educators:

- **Challenges can turn the student off** – 40% educators indicated that providing too many or too large a challenge to the student can make them disoriented. This could result in them losing interest towards accepting challenges, and in some cases, they could even become willing to perform to their basic abilities.
- **Teachers as role models-** 75% design educators consciously chose not to become a role model for their students. Their concern stems from the fact that there is a likelihood of the students getting restricted in their vision, to achieve only as much as set out by their' role models' and to then refuse to evolve beyond. Some basic things such as learning good habits and professionalism or maintaining ethical behaviour were, of course, encouraged in class, but these teachers did not overall present themselves as role models for their students.
- **This model may not work with a larger cohort-** 80% design educators feel that the transformational leadership model may only work on a smaller group of students, say between 15-20. Theories and practices like "individual consideration" and "idealised influence" may not effectively or practically work with larger cohorts.
- **Time management-** 90% design educators were of the opinion that they hardly got any free time for experimenting with other educational systems, considering their tight schedules. They already felt over-burdened in their day to day class preparation, delivery & assessment. The act of informally clarifying student issues and concerns (beyond the classroom) effectively consumes much more time that is ever planned or expected.
- **Addressing a perception of bias towards students-** 20% design educators indicated that there are sometimes situations during which spending extra time addressing the very valid concerns of certain students individually and informally, sometimes creates a perception of bias in the mind of some other students.
- **Dependence on spoon-feeding-** 60% of educators feels that a lot of times, certain students expect the teacher to work out most of the details to the extent of finding solutions, just to avoid putting in the effort of working out the long and

unknown processes. This eventually results in a mind-set unwilling to innovate on its own ideas. The natural outcome of this attitude would be a restricted ideation process as well as lesser confidence to face the industry's real-life situations and expectations.

- **Difficult to motivate students online-** 70% of educators found it difficult to motivate students online. There seemed to be a reduction in the implementation of individual consideration; primarily due to practical restrictions in scheduling and organising online classrooms. Hence there were concerns towards its application and effectiveness within the online medium.
- **Student's pace of learning-** Different students come from various kinds of socio-economic backgrounds. This often results in a varying pace of learning for students within the same cohort. A method that works for one doesn't necessarily work for the other. Thus, 85% of educators indicated that certain students needed individual attention at various stages.

Key Findings- suggestions were given by Educators

Following are the suggestion given by design educators to implement this method in teaching:

- This method works for smaller cohorts. If it is a larger cohort, then it should either be broken down into smaller sections. Another way is to assign one teacher for about 15 students and then assign the rest to another teacher, which becomes another form of co-teaching.
- Teachers should definitely influence the students in a positive manner but should not project themselves as 'role models' as it can restrict the learner's perspective to only one direction and may dissuade them from seeing the wider picture.
- These methods only work if students are willing to learn. The teacher can prepare a fertile field for learners, but they have to come on their own interest and dedicate themselves.
- These methods first need to be broadly discussed, debated and accepted within an academic community, which primarily consist of teachers. They are, after all the primary stakeholders in these processes and the eventual implementers of this pedagogy. They need to be properly sensitised and oriented to ensure a meaningful alignment with the already implemented education system.
- The possibility of this method improving the learning experience of students is high. The teachers can be given the liberty to decide how they would like to implement these tools within their own teaching style. There are chances that they may face initial hitches in their usual flow of delivering content. But they need to be encouraged to take this initiative for the larger benefits it offers to the students.

Indian Design Students Perspective on Transformational Leadership

To enhance the research, an online survey was conducted with design students to understand better the impact of transformational leadership as a pedagogical tool.

Before asking the students to fill in the online questionnaire, a briefing was conducted to orient them to the idea of transformational leadership. It was important first to help them identify up to what extent the elements of transformational leadership were being applied in teaching and then to collect the student's response about these. This

survey became instrumental in understanding student concerns as well as the benefits they may have personally derived through this teaching method.

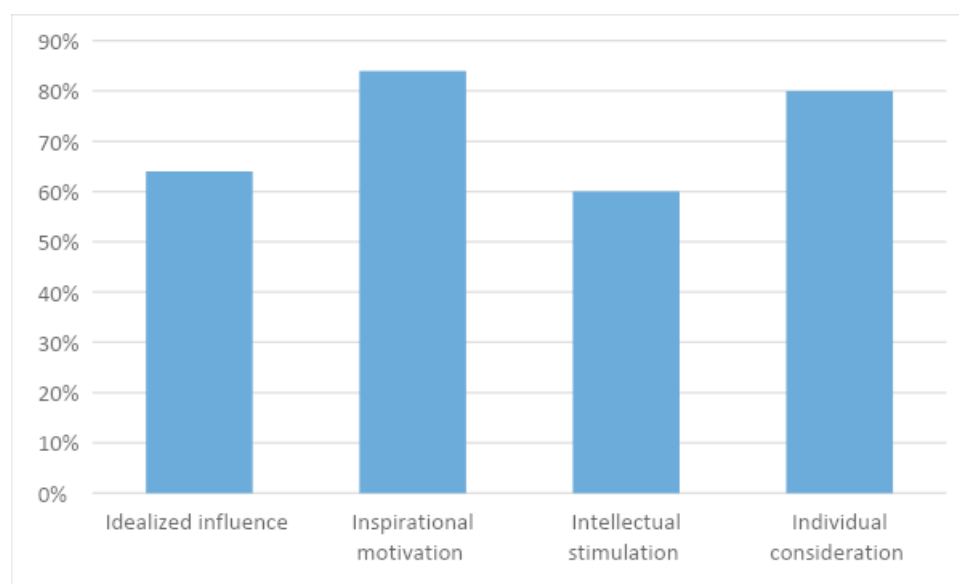


Figure 5: Student responses on the implementation of all the four elements of transformational leadership in the classroom

As per the recorded students' response, idealised influence received 64% votes, and inspirational motivation got 86%, intellectual stimulation got 60%. Individual consideration got 80% votes on the perceived implementation of all these four elements of transformational leadership in their classrooms (refer fig: 5). It became apparent that in the minds of the students, the application of idealised influence and intellectual stimulation are less as compared to the other two elements of transformational leadership.

After this, the students were asked about the importance of idealised influence and intellectual stimulation in their growth. To this, 92% responded that these two factors were equally important as the other two factors and that its application should be given more importance in classroom teaching (refer fig: 6).

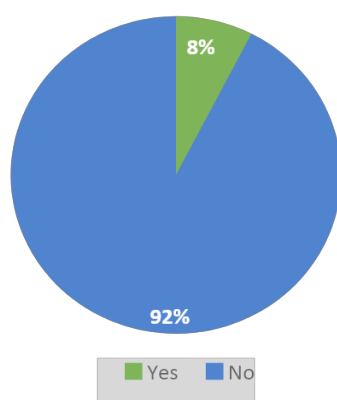


Figure 6: 92% of students said that the application of idealised influence and intellectual stimulation should be given more importance in classroom teaching and that these elements are as important as the other two.

According to the survey, after the conscious application of this method in teaching, 96.3% of students were able to build better relationships with their teachers (refer fig: 7). Further, 89% of students felt that they were able to improve their relationships with the other students in their class (refer fig: 8).

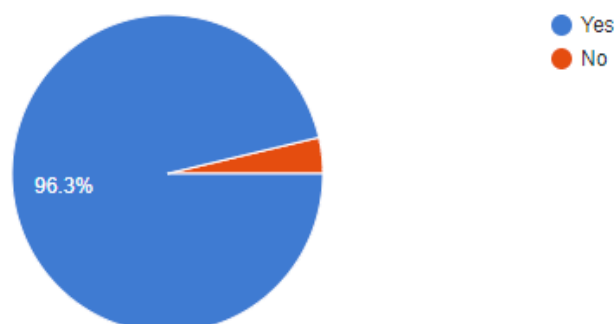


Figure 7: Pie chart representing the students' opinions regarding the effectiveness of the method towards building a better relationship with teachers

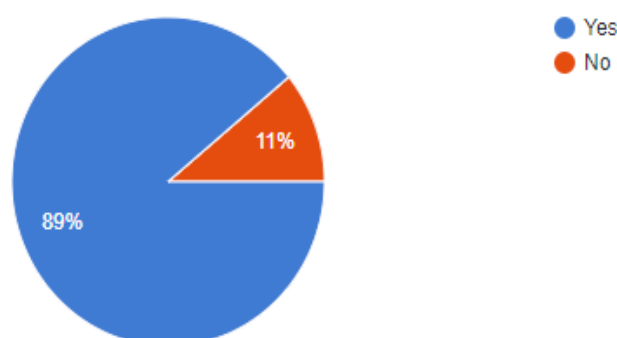


Figure 8: Pie chart representing the students' opinions regarding the effectiveness of the method towards building better relationships with their classmates

As per the interviews conducted, many design educators had previously identified positive transformations in students after the conscious application of transformational leadership as a pedagogical method. This aspect also got reflected in the surveys conducted with students. A total of 79% found themselves to be more confident, 81% felt more ownership towards their work, 75% developed a respect for each other, 78% felt an improvement in their final project outcome, 70% felt motivated to take newer challenges and 72% agreed that their class engagement has improved (refer fig: 9).

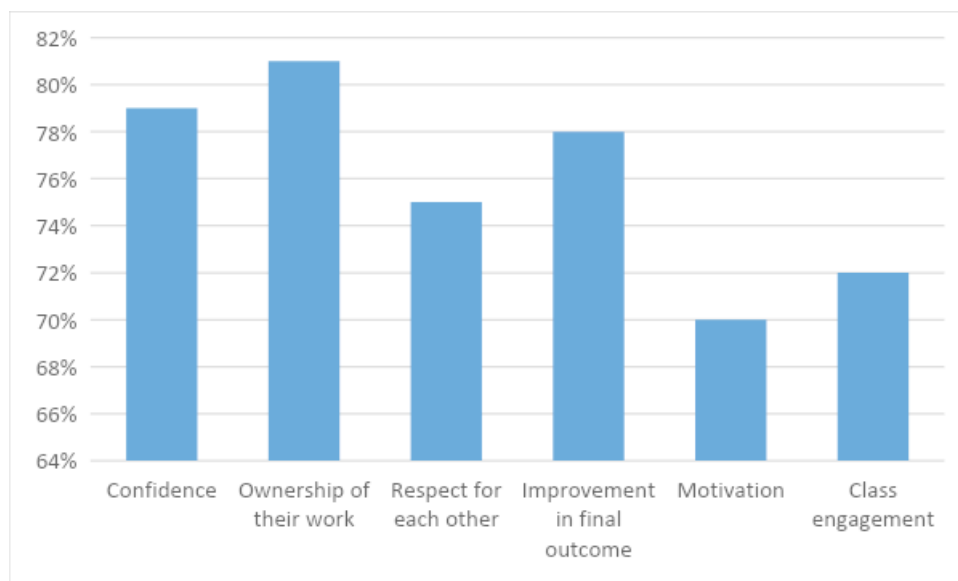


Figure 9: The graph represents an agreement from the students' side, with respect to the various positive transformations pointed by design educators (after the implementation of the method).

The pie chart is shown below talks about how 96.5% of students found themselves positively transformed through this method used in the classroom (refer fig:10).

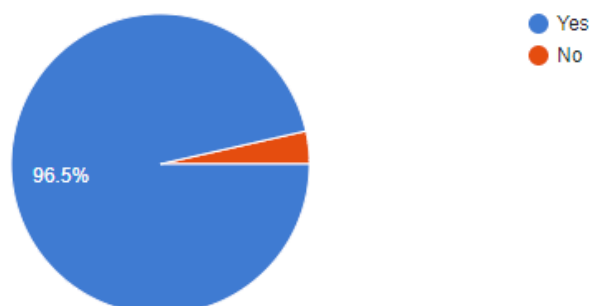


Figure 10: The pie chart presents that 96.5% of students found themselves transformed after the application of transformational leadership as pedagogy

When asked about the limitations of this method, 98% of students said that there were no limitations in this methodology (ref fig: 11).

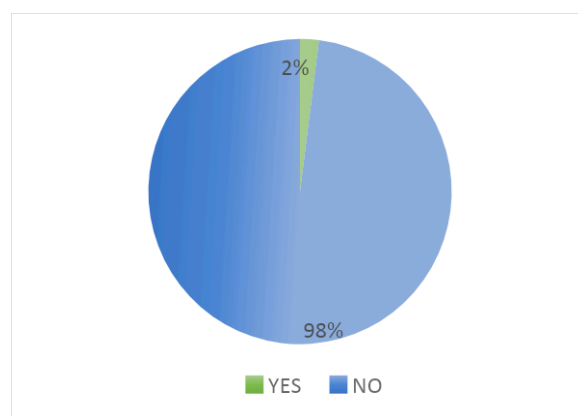


Figure 11: Pie chart represents that 98% of students found no limitation in this method

All students further indicated through the online survey, that it was a good idea to consciously apply all the four elements of transformational leadership as a pedagogical method in design education (ref fig: 12).

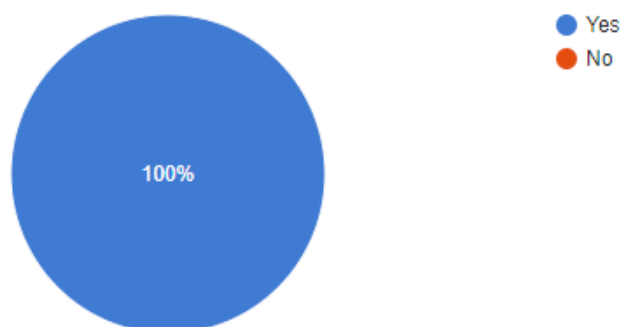


Figure 12: All students were in agreement that it is a good idea to apply transformational leadership as a pedagogical tool in design education

Key findings from this survey

- There was complete agreement from all students regarding the need of having transformational leadership formally implemented as a pedagogical method in their classrooms.
- '*Idealised influence*' and '*intellectual stimulation*' as methods are less widely used in classroom teaching; these according to students were equally important and needed more attention.
- Majority of students found themselves transformed after the application of these methods in classroom
- Students formed better relationships with their teachers as well as with other students within their class after the application of this method.
- As per one of the written suggestions, they asked for more practical knowledge and industry connections in their classrooms, which can be considered to form part of *intellectual stimulation* and *inspirational motivation*.

Analysis and discussion

Following are the gaps identified from the responses received from students and design educators:

Design educators felt that the application of '*individual consideration*' and '*idealised influence*' was less in their own teaching. The students, on the other hand, felt that the application of '*intellectual stimulation*' and '*idealised influence*' was lesser in their classroom experience. There seems to be a gap observed in the understanding between educators and students. According to students, they were not provided sufficient challenges, whereas the teachers were of the opinion that they were giving students adequate challenges, but they themselves were not able to work on individual

concerns of students. This discussion has been highlighted with red boxes on both the figures below (refer fig: 13 & 14).

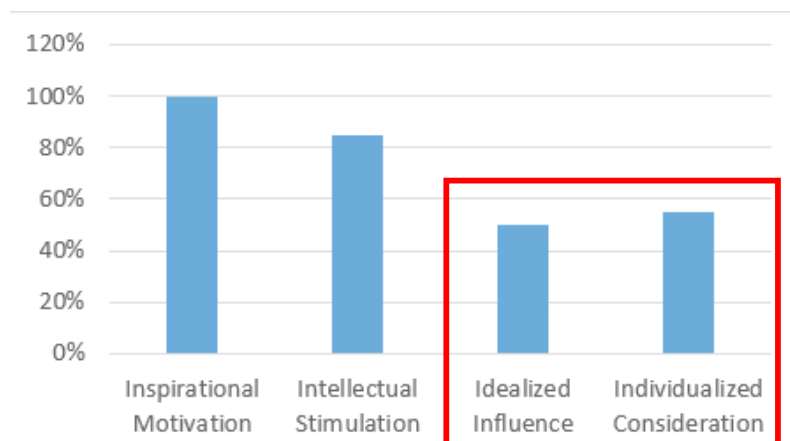


Figure 13: According to responses received from design educators, there is less application of the tenets of idealised influence and individual consideration in teaching

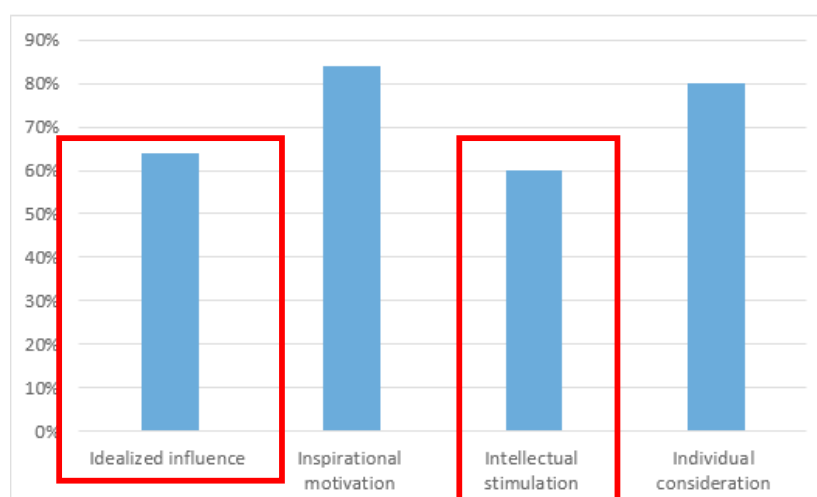


Figure 14: According to responses received from students, there is less application of the tenets of idealised influence and intellectual stimulation in classrooms

About 40% of design educators were consciously applying transformational leadership as a pedagogical method. 45% showed interest but were so far only partially using this method. This means that 85% of teachers are broadly interested in implementing this method as a pedagogical system in design education within the context of India. Approximately 15% of design educators were not interested in trying all four elements of transformational leadership and expressed certain reservations. On the other hand, 100% students agreed that this method had benefits and could surely help them transform and that it should be applied in the classroom by their teachers.

Majority of design educators responded that giving individualised consideration is not practically possible with all students. They felt that students should also take the initiative to come forward and discuss their concerns. Students on the other hand, felt that it helps if their teacher is receptive and friendly in nature and initiates a

conversation. It will be much easier for them to develop trust and have greater confidence to discuss their concerns with the teachers.

Proposed Transformational Leadership Model

On the basis of the various interviews, recommendations and suggestions received from the design educators and interaction with the students, a transformational leadership model was developed. It is almost the same as the previous model but has been slightly modified by the author, based on the advice of the interviewed educators. Their suggestion includes self-reliance and related values to be added to the transformational teaching model for better adaptation to industry requirements. Listening to students' concerns has fed in to all the other three factors of transformational leadership. They also suggested exclusion of 'role models' which may not serve the purpose as intended. The figure below (refer fig: 15) proposes a way for design educators to effectively use transformational leadership as a pedagogical tool in design schools of India.

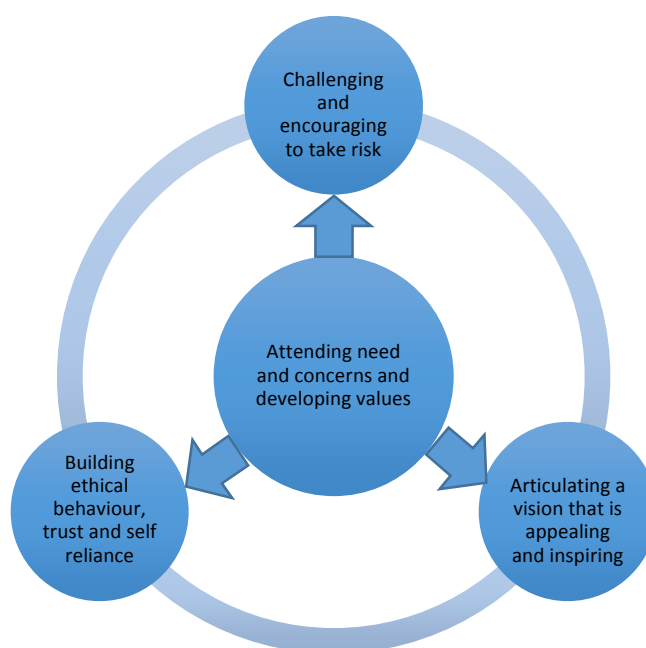


Figure 15: Proposed transformational leadership model for design education in India

Conclusion

This paper has explored the potential of transformational leadership as a pedagogical method in design education in India with a focus on exploring the benefits and limitations for students and teachers. The interviewed design educators confirmed that the method offers immense opportunity to facilitate deep learning in students and the development of skills that are necessary for their professional life.

The theory of transformational leadership provides a known model for approaching transformative teaching for educators in the classroom. As an educator, we must practice and believe in what we teach to the students.

The student survey reflected the importance of all the elements of transformational leadership in classroom education and identified various benefits such as building better relationships between teachers and students, encouraging more profound learning and creating a positive environment in the class. However, educators have cautioned that some practical limitations such as issues around time management, prior biases in student's mind-set and over-dependency on teachers, etc. also need to be addressed simultaneously.

Appropriate preparation and planning are required to implement this model in teaching. Educators have to carefully apply the factors of transformational leadership as per student requirement. The successful implementation of this teaching method also needs strong institutional support and an alignment with their vision, so that the more practical, everyday aspects such as time management, etc. can be taken care of.

Based on the research done and understanding developed about the benefits and challenges (from discussions with students and teachers), a new transformational leadership model has been proposed. There is a definite scope for further research to investigate the effectiveness once this model is introduced within an institution as a systematic intervention. The intent and the expectation is to generate a better realm of existence, today and tomorrow.

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Value Creation in Photovoltaic Supply Chain through Market and Product Diversification: Insights from Emerging Building Integrated PV Segment

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The Asian Conference on Business & Public Policy 2020
Official Conference Proceedings

Abstract

The recent years in the PV industry have been marked with a severe imbalance of manufacturing capacities and demand, which led to abrupt market shocks and end-product price volatility. Moreover, the Chinese fast-follower producers managed to grasp the significant competitive advantages, both, in terms of scale and technological advancements. Under such conditions, the PV segments in originally technologically advanced countries of the West struggle to reinvent their approach to restart, at least, part of their manufacturing base. The problem is complex while it relates to the domain of policies, technology, product design, logistics, or emerging applications. In this manuscript, the authors proposed a broad reflection on current PV and BIPV trends with a special focus on the value creation in the BIPV supply chain. The reflection was based on the data and know-how derived directly from the industry sources, including the recent PV global events. The discussion leads to the conclusions on the growing importance of the untapped chances resulting from the merging construction and PV industries. The substantial part of the PV value creation is deemed to shift from manufacturing hubs towards the proximity of the projects' locations, which creates chances to increase the balance of the global industry. The topic of the value creation in BIPV is hardly present in the literature therefore the research brings an important contribution, also through the quoted data.

Keywords: BIPV, Solar Façade, Solar Tile, Product Value

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1. Introduction

The origins of the PV industry could be dated back to 1893 to the discovery of the photovoltaic effect by Edmond Becquerel. In its essence, the effect consists of generating the voltage and current in the solar cell when it is exposed to the sunlight. The core of solar cell is composed of the semiconductor materials creating p-n junction responsible for the electric field. The collection of light-generated carriers by the p-n junction causes a movement of electrons to the n-type side and holes to the p-type side of the junction. While, the unit solar cell represents the smallest part of the photovoltaic appliance and its size may differ according to the technology employed, the majority of the market still functions with the standard of 6 inches silicon crystalline cells (c-Si). The c-Si technology covers around 96% of the PV market with the remaining 4% occupied by the thin-film (including mainly CdTe and CIGS) and other emerging technologies (Fraunhofer Institute 2019). Certainly, the silicon segment operates with the highest level of technology maturity. The manufacturing facilities, based on the turn-key solutions, enable to reach the highest efficiencies with the lowest unit costs per cell – currently at around 0.1USD/Wp. Moreover, the c-Si would build its competitive advantages over thin-film in the coming years while the emerging propositions, here mainly organic or perovskites, did not enter yet the mass-scale production.

Within the c-Si, monocrystalline cells are formed with the wafers manufactured using a single crystal growth method and have commercial efficiencies between 16% and 25%. Multi-crystalline silicon (mc-Si) cells, usually formed with multi-crystalline wafers manufactured from a cast solidification process, have remained popular as they are less expensive to produce but are also less efficient, with average conversion efficiency around 14-18%. Regardless of the type of cells, they are assembled into the modules of various structures and sizing. On the residential market, the modules of 60 cells are the mainstream. As far as the utility-scale is concerned, the cells' quantity rises to 72 so the marginal cost declines.

The cell and module segment stands for the midstream of the PV industry. In the earlier stage, in the upstream segment, the wafers and ingots provide the raw material for cells after the capital and energy-intense production processes. In the downstream, the modules are used for installations, often combined into arrays, together with the mounting systems, the balance of system (BoS), or tracking systems. Due to the scale and the growing importance of the PV globally, each part of the value chain undergoes the technological and organizational transformation. Apart from the equipment's evolution, it is worth to underline the emergence of the new business models in the downstream sector, whether it is off-grid, or on-grid employment.

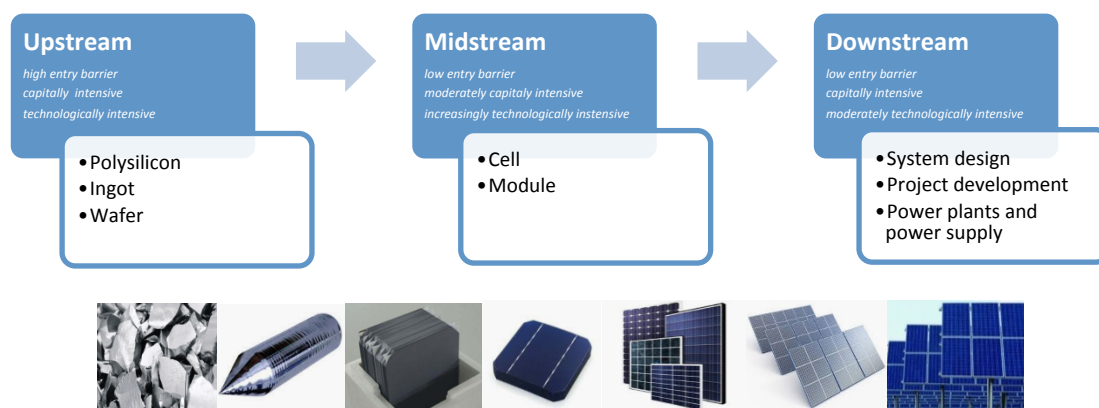


Figure 1. c-Si PV industry value chain

Aside from the technological robustness and fierce competition, the volatile nature has always been a leading characteristic of the PV supply market. This imbalance in supply and demand has cumulated, resulting in the exogenous shocks that have had a tremendous impact on the local manufacturers, regardless of the developed technology. According the pv-magazine Module Price Index (2017, 2018, 2019) and NREL (2018) data, the cell and module prices dropped in 2016 for around 26% and 30% accordingly. The major shock took place from June 2016 to September 2016 when the price adjustments reached the levels of over 20% in cells and modules and over 35% wafers. Although the following months brought a limited rebound for the wafers and cells, the module prices remained under pressure. The downward trend continued to the average price of 0.3USD/Wp in March 2018 (0.21USD/Wp for cells and 12USD/Wp for wafers) (Wang and Kryszak 2020). From the broader perspective, the origins of the dynamic changes in the PV industry could be grouped in three interrelated domains. Firstly, one could point at the lagging technological progress, which was consequence of the low standards and unspecific demand that was not supported with appropriate national polices. Secondly, the chaotic led to the systematic imperfections and overcapacity when the fast-followers of Asia. Finally, the underdeveloped application markets (local and global) exposed unbalanced industry to the substantial business risks of the fluctuating and unpredictable demand.

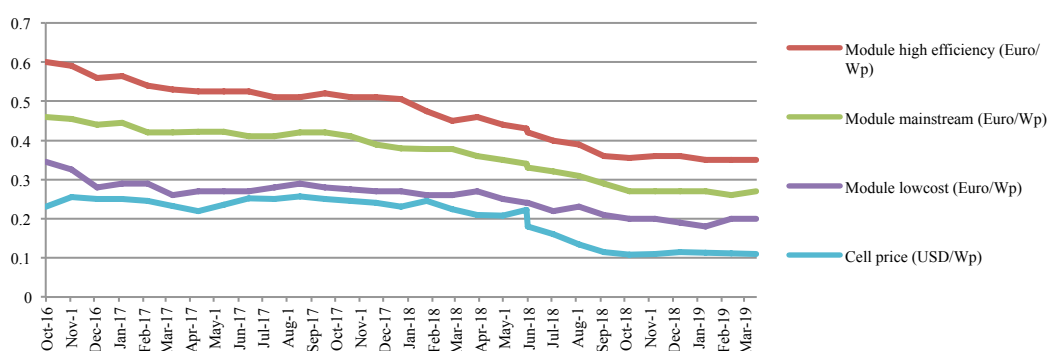


Figure 2. c-Si cell and module price (EUR/Wp, USD/Wp) evolution on the European and American markets (Schachinger 2017, 2018, 2019; NREL 2018; Wang and Kryszak 2020)

With the prices of equipment reaching grid parity point, relatively new aspects of PV limitations started being noticed. Importantly, in the wealthiest locations of the West,

where the land is scarce and the public opinion stands as an important factor during the investment assessment, the land availability for the utility and industrial scale projects is not sufficient. Moreover, the electricity grid structure face its own limitations related to the dispersed sources of energy which would be eventually solved with the energy storage systems and micro-grids (Sharma et al 2020). In order to adjust to the changing environment, PV manufacturers strive to meet the requirements of the residential and architectural sectors by expanding their Building Integrated PV (BIPV) offer. Such offer brings multiple benefits to the investors and end-customers while, on the one hand side, the basic idea of electricity generation is guaranteed but, on the other hand, the PV equipment serves the functionality of the construction materials (i.e. insulation or water protection) which, in this case, are not required anymore. Importantly, the PV equipment becomes the carrier of aesthetics value therefore it targets the great vulnerability of the modern PV systems – the lack of aesthetic appeal. The BIPV idea is certainly not new, however only recently it managed to grasp the wider attention, either among the manufacturers or the customers. Often, during the previous stages of market development, the BIPV was confused with Building Applied PV (BAPV) which mimicked BIPV in its essence. After Tabakovic et al (2017) it is crucial to distinguish that, although in BAPV, the modules are attached to building, it happens independently to the building's structure, so the PV has not direct effect on the building functionality per se. In case of BIPV systems, there will be some direct impacts on the building structures and their functionality, especially if some additional, or relatively complex mounting systems are required. Given that, the BIPV stands as an integral element of the structure which implies its replacement with other construction element once the BIPV is removed.

The goal of this research is to explain the potential impact of BIPV on the value creation in the PV value chain. The BIPV manufacturing, and project delivery differs significantly from the traditional, mainstream offer, leaving the chance for smaller entities to compete against the large and established companies. This competition might be not necessary based on the price, but also range of the offer, its quality, lead-times, and innovations involved. The topic of value creation in BIPV segment is new while the literature is scarce. In our research, we would rely mostly on industrial data, which would stand for the main contribution of the article.

2. Methodology and data

This part of the research is solely factual and focuses of the most recent market information (industry data). The goal of the section is to display the relations between the value, the quotations of various PV and BIPV products on the market. The analysis is divided into two perspectives:

- a) Value creation – process perspective
 - a. Size customization
 - b. Product functionality (rigid to flexible)
 - c. Colorization
 - d. Transparency
- b) Value creation – product perspective
 - a. Roof tile
 - b. Façade

In its essence, the section will follow the works of other scholars, here including: Kuhn et al (2020); Jelle et al (2012); Ceron et al (2013) among others. The data presented in this section was collected from the various industry sources, here including the magazines, reports and scientific journal. Most importantly, the quotation data of the less mainstream technologies was derived from the face-to-face meetings, especially during the PV industry exhibition, in Taiwan and abroad.

3. Results and discussion

The size of mainstream offer is highly standardized. In the silicon segment, the residential market was supplied with the modules of 60 cells while utility scale opted for 72 cells. In the thin-film domain, the offer is less standardized and, in fact, each company has its own sizing which is a derivative of the manufacturing equipment in the given company. Thin-film is produced in the single manufacturing process on, mostly, specific manufacturing lines which would not duplicate across the industry. The BIPV projects, on the other hand, often require unstandardized sizing to fully accommodate the surface. Moreover, the dedicated products, solar tiles included, could be only designed based on unusual sizing, compatible with the roof tiles and construction industry standards. Given that, the niche supply of such modules appeared on the market while the offer was priced well above the mainstream. According to the industry knowledge, the custom-made modules could cost above 1EUR/Wp, although it is worth to point that the quotations in BIPV market are mostly delivered by piece or EUR/m² and not euro/output power. The customized offer is unique, and produced with limited scale therefore it is often performed by the small and medium size suppliers, often based in the proximity to the projects. The high price needs to compensate the substantially increased labor and marketing costs. The flexibility of manufacturing approach is expected to improve together with the introduction of the third-generation cells which are easily adjustable in terms of size.

The surface BIPV projects' constraints relate not only to sizing, but also to shapes. Firstly, buildings' surfaces do not need to be flat. Secondly, the buildings' mechanical load standards limit the weight of modules and constructions applied on top of them. The flexible offer is light, shape-forgiving, and relatively easy to install. As far as the technology is concerned, the flexibility is offered by variety of producers in the segments of c-Si, thin-film, OPV, or perovskites (near future). The most mature technologies of c-Si and thin-film, reached the expected durability and warranty terms of 10/25 years. The current market prices of the flexible c-Si reach 0.7EUR/Wp, thin-film around 1euro/Wp, and OPV over 1euro/Wp. Similarly, to sizing issue, the value added comes mostly with the expense on the increased labor, but also the niche, customized manufacturing lines, especially in the domain of thin-film.

Unlike the sizing and flexibility which relate to the purely engineering requirements of the projects, the colorization targets the aesthetics. The aesthetics factor is crucial to architects and investors which often hold the authority to facilitate the installations. According to the literature, the aesthetics shortage of the mainstream offer could be cited as one of the main reasons for late wide adoption of BIPV. In contrast, the aesthetics might contribute greatly to the financial feasibility of the projects (Kryszak and Wang 2020). Since colorization is appreciated by the big public, it also contributes to the increase of the BIPV acceptance by society. The colorization of the modules is achieved mostly by the glass printing methods, although few companies

deliver solution based on other techniques involving glass light refraction, direct cell coloring, or stickers. The module coloring could be uniform, with single-color, or customized with multi-color (only with print methods). The single color modules tend to be cheaper with the price range of 100-150EUR/m². The multi-color quotation reaches 200-250EUR/m². In this case, the modules could serve as the additional source of income, including advertisements with the printing of the particular design. According to the recent market research, the coloring gains wide recognition across various solar cells technologies. In the past, the colored offer related mostly to the thin-film manufacturers which envisioned BIPV as a valid strategy to escape the fierce c-Si competition. Nowadays, the largest c-Si modules producers spotted the chance in BIPV therefore the market expands and one could expect the price to decline in the near future.

The last upgrade, the transparency is currently the most value-added process in the BIPV industry. It requires the cutting-edge technology, extensive labor park investment. Although, the market is still immature leaving the high-risk on the producers' side, the transparent installations gain attention thanks to its appeal, functionality, and exceptional aesthetics. In regards to technology, transparency is achieved differently in case of thin-film and c-Si. For the thin-film, the transparency is achieved through the laser process which effects in the uniform and appealing outcome. On the other hand, c-Si modules base on the glass with the solar cells in between so the effect is only partial. From this reason, one could expect the technology to develop further to fully meet the glass industry expectations. As the products are not of the same quality, the pricing may also differ. We could quote the range of 500 to even 1000EUR/m² and it stays noticeably above any other BIPV segments. Since the certain level of opacity is reachable to the OPV and perovskites technologies (but also to quantum-dot process), the market might evolve to the lower prices for the products of comparable quality.

The upgrades of the manufacturing processes could be offered to the market through the supply of components, here including processed solar cells. The components, in the further part of the supply chain, are assembled into the end-products that target the end-customer with applications. With the size customization, improving the functionality (on the cell level), colorization or transparency, these products tend to bring the increased value to the customers, therefore increase the competitive advantages of manufacturers which lead to the potential of reaching higher margins. As it is observed on the BIPV market, the façade and roof tiles managed to gain the broadest acceptance of the customers. Both products offer achieved the relatively maturity processes of manufacturing, with few companies gearing up for the mass scale operation. The market research indicated that the current PV tile's price level fall into the range between 2200-3000EUR/kWp. For most of products, the tiles display the power class falling into range 130-150Wp/m².

As far as the façade segment is concerned, the data is less abundant which comes as a consequence of the high level of customization in the façade market. The prices to the end customer vary greatly in function of the processes employed to deliver the goods, here mostly: size customization, coloring, restructuring. One could provide the approximate quotations of: around 100EUR/m² for basic black frameless modules, around 100-150EUR/m² for single-color frameless module, around 200-250EUR/m² for multi-color ceramic printed frameless modules. Due to the substantial difference

of the module power classes (in respect to solar cell technologies and coloring options) it is not a common practice to provide the quotations based on the Wp unit.

Table 1. BAPV and BIPV investment comparison (based on the case study)

	size customization	restructuring	coloring	transparency
PV rooftopile	end-customer price: 2200-3000EUR/kWp, factory price: around 1.4 EUR /Wp (130-150Wp/m2)	factory price: around 1.1 EUR /Wp (flexible module of relatively low efficiency)	factory price: over 2 EUR /Wp for terra cota PV tile (around 100Wp/m2)	-
PV façade	factory price: basic frameless option 100 EUR /m2, the cost of resizing in function of material waste and number of cuts	factory price: around 1 EUR /Wp (OPV, flexible), changes in the solid structure in function of employed cover glass and thickness of the modules -100-300 EUR /m2	factory price: single color ceramic printing 100-150 EUR /m2, multi-color ceramic printing 200-250euro/m2, UV printing 150euro/m2, colored cover glass 150-200 EUR /m2, sticker method 150 EUR /m2	factory price: 500-1000 EUR /m2 (in function of technology and transparency)

Based on the market data derived directly from the suppliers

4 Conclusions

In this research authors' goal was to analyze the current ways in mainstream PV industry to increase the value-added of the products in BIPV segment. According to the data presented the BIPV creates the substantial chance to the producers. Regardless the manufacturing cost side, which was not the topic of this research, industry data clearly indicates the great nominal difference between the quotation of mainstream and niche BIPV offer. Starting from the basic size and shape customization, through product design towards the most sophisticated transparent modules, the magnitude of mark-up might indicate the shortage of the suppliers. The market is fragmented, without clear leaders and the standardization. Moreover, taking into consideration the early industry phase of growth, one could assume the existing chances to the smaller and well-positioned (also locally) entities, which are currently not able to hold their competitive advantages under hostile market conditions and ever increasing scale capacities. The BIPV stands for separate market, driven by distinctive requirements and the complex customer service. Due to the supportive policies towards PV, and BIPV specifically, the industry evolution would certainly accelerate in the years to come.

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