The role of financial literacy and fraud awareness in strengthening self-managed superannuation funds (SMSFs)

Cassandra Cross | Anup Basu | Lukas Carey

MAY 2022

QUT Centre for Justice

ecstra

Citation

Cross, C., Basu, A. and Carey, L. (2022) *The role of financial literacy and fraud awareness in strengthening self-managed superannuation funds (SMSFs).* Brisbane: QUT Centre for Justice. ISSN 2652-3809.

Acknowledgements

The authors gratefully acknowledge the funding support of the Ecstra Foundation and the QUT Centre for Justice which enabled the completion of this research.

The report contains the views of the authors. Any errors or omissions are the sole responsibility of the authors.

About the authors

Cassandra Cross is the Associate Dean (Teaching and Learning) in the Faculty of Creative Industries, Education and Social Justice, Queensland University of Technology. She also holds a position as Associate Professor in the School of Justice, QUT.

Anup Basu is a Professor in the School of Economics and Finance, Queensland University of Technology.

Lukas Carey is a Senior Research Assistant with the QUT Centre for Justice.

The role of financial literacy and fraud awareness in strengthening self-managed superannuation funds (SMSFs)

Contents

Tables and Figures

Introduction

In 2020, Australians reported losses of over AUD$851 million to fraud (ACCC, 2021b). This was up from AUD$634 million in 2019 (ACCC, 2020b), and is expected to increase further in 2021. Fraud is characterised by the use deception for financial gain. Offenders employ a variety of techniques to successfully gain large amounts of money from victims. Offenders will coerce and persuade victims to send money taken from savings accounts, lines of credit, bank loans, and borrowing from family and/or friends. In a small number of cases, offenders will also coax victims to withdraw money from their self-managed superannuation funds (SMSFs).

Most superannuation in Australia is managed by retail and industry regulated fund managers, under the Australian Prudential Regulation Authority (APRA). However, in 1999, the Australian government passed legislation which created self-managed superannuation funds (SMSFs), which enabled the transfer of control of superannuation from the retail and industry fund managers to individuals themselves (and other family/friends/third parties). Consequently, in these cases the responsibility of investing retirement funds has shifted from professionals to superannuation holders.

There are many Australians who have taken up this opportunity. As of 30 June 2021, there were almost 598,000 SMSFs in Australia, held by 1.115 million members (ATO, 2021c). This number has been on an upward trend in recent years. SMSFs in Australia are worth AUD$822 billion in total assets (ATO, 2021c) which accounts for 25% of the overall AUD$3.3 trillion in super assets held under management (ATO, 2021c).

Advice provided by the ATO when considering the establishment of a SMSF clearly indicates the need for individuals to consider their own ability to make informed choices about their investment options and the need to seek financial advice to achieve this. In this way, the level of financial literacy of SMSF holders is an important aspect to consider.

Further to this, given the sheer amount of SMSFs and their financial value, it is not surprising that SMSFs are likely to be very attractive targets for fraud offenders. Anecdotal evidence suggests this to be the case, with victims withdrawing and subsequently losing funds from their SMSF to fraud offenders (Cross et al., 2016; Marshall, 2018). In these cases, victims often withdraw the funds under the pretext of a loan, and of being paid back in the future. Sadly, victims will not be repaid as intended and can sustain significant financial losses and additional consequences for an illegal early withdrawal. Despite the gravity of these circumstances and the potential impacts to SMSF holders, to date there is no known academic research to specifically explore this type of fraud in depth, within the Australian context.

The current report details findings from a study that sought to better understand the vulnerability of SMSFs to fraud, focused predominantly on the role of financial literacy. In doing this, the project examined the following research questions:

1. What level of financial literacy do SMSF members have?
2. What level of fraud awareness do SMSF members have?
3. What is the experience of SMSF members withdrawing their funds?
4. How does financial literacy interact with fraud awareness and fraud vulnerability for SMSF members?

The project seeks to test the following three hypotheses:

1. SMSF members with lower levels of financial literacy will also have lower levels of fraud awareness.
2. SMSF members with lower levels of financial literacy will have withdrawn their funds more often than those with high levels of financial literacy.
3. SMSF members with low levels of fraud awareness will have withdrawn their funds more often than those with high levels of financial literacy.

To answer these questions, the project used an online survey of 806 SMSF members, aged 18 years and over, who reside in Australia. The survey comprised of six modules which included questions about the respondent's SMSF and any withdrawals, their level of financial literacy, and their attitudes and understanding of fraud.

Key findings from the report indicate that:

- More than half of respondents demonstrated a low level of financial literacy
- Almost half of respondents demonstrated a low level of fraud awareness
- One third of respondents demonstrated both a low level of financial literacy and a low level of fraud awareness
- One quarter of respondents were approached during COVID-19 to assess their eligibility to withdraw funds from their SMSF or assist with a withdrawal
- One third of respondents had made an early withdrawal from their SMSF
- The most common amount withdrawn was between AUD$50,000 and AUD$100,000
- Almost two thirds of those who withdrew their funds knew it was potentially illegal but withdrew the funds anyway
- Low levels of financial literacy and low levels of fraud awareness impact negatively on those with SMSFs
- Low levels of financial literacy and low levels of fraud awareness increase the vulnerability and potential exposure of SMSF holders to fraud victimisation

These key findings are expanded in detail in the following report.

Key concepts

There are three central concepts related to the current research project: self-managed superannuation funds, financial literacy, and fraud. Each one of these are summarised below.

Self-managed superannuation funds

The superannuation system in Australia has been designed to encourage workers from all areas to commence their savings for retirement (Thorp et al., 2021). Superannuation contributions are largely made via compulsory contributions from employers and to a smaller degree additional voluntary contributions made by workers. The establishment of SMSFs in Australia in 1999, allowed for individuals to take ownership and control over their retirement savings, rather than having this administered by retail and industry managed funds.

In the limited work done exploring the experiences of SMSF members it has been suggested that members enjoyed their involvement in their superannuation funds due to the control they can have, the management of the investment direction, the characteristics of the investment portfolio and the management of risk associated with investments (Arnold et al., 2014; Bird et al., 2018; Russell et al., 2020). However, SMSF holders have not always been content with the taxation implications and compliance requirements, the legal and administrative aspects of gaining access to their fund and administrative requirements when changing their investment strategies and plans (Butler and Noah, 2019; Xue et al., 2019; Russell et al., 2020; Thorp et al., 2021). While there is a degree of freedom associated with managing one's own superannuation, there is a corresponding level of responsibility and risk involved in its administration and ensuring compliance with governing legislation and regulatory requirements (Moneysmart, n.d.).

Release of funds in SMSFs

In most circumstances, the early withdrawal of funds from a SMSF may be considered illegal. The legislation surrounding SMSFs provides for limited and specific conditions of release, whereby the money may be accessed. In most circumstances, access to SMSFs can occur:

- when the SMSF holder reaches their preservation age;
- when the SMSF holder reaches their preservation age and begins to transition to retirement income while still working; and
- when the SMSF holder reaches 65 years or older (even if still working) (ATO, 2021a).

(Note: Preservation ages range between 55 years and 60 years depending on the individual's year of birth).

The potential for early access to SMSF may be approved only on the following grounds:

- Compassionate grounds
- Severe financial hardship
- Terminal medical condition
- Temporary incapacity
- Permanent incapacity
- The fund containing less than AUD$200
- First home super saver scheme (this began in 2017 and allows for the withdrawal of up to AUD$30,000 (capped at AUD$15,000 per year) for the purchase of a property for first home buyers) (ATO, 2021a).

Further to this, as a response to the COVID-19 pandemic which began in March 2020, the Australian Federal Government approved the release of funds from superannuation for Australians who were adversely impacted financially from COVID-19. The program ran from 20 April 2020 and closed on 31 December 2020. It allowed for the withdrawal of up to AUD$10,000 in 2020, with the potential for a further withdrawal of up to AUD$10,000 in 2021. Statistics indicate that the Australian Taxation Office (ATO) received 2.54 million applications for withdrawal of superannuation under this scheme, with 2.45 million approved (96.4%) (ATO, 2021b). Almost half of these applications were made on the grounds that the applicant had a reduction in working hours, directly as a result of the lockdowns and corresponding restrictions associated with the pandemic (ATO, 2021b).

The above illustrates the restricted circumstances through which individuals can legally gain early access to funds held within the SMSF.

Financial literacy and decision making

The term financial literacy has been developed to describe an individual's understanding of their own finances, the mechanisms that influence finances and their actions when interacting with the finance sector. The complexity of defining financial literacy is due to numerous elements involved with it. Aspects such as interest, inflation, fees and charges, risk vs. reward and the formulas used to calculate these can make the effective navigation of finances challenging.

Extensive research has linked success in business and individually with a person's level of financial literacy (Bateman et al., 2012; Guest and Brimble, 2018). It has also been shown that individuals who do not possess sound financial literacy and an understanding of the mechanisms of the financial system can be linked to poor financial decision-making and performance (Bartolacci et al, 2020; Klapper and Lusardi, 2020; Mahendru, 2020; Augustyn et al., 2021).

Performance in business has also been linked to financial literacy and understanding of the mechanisms of the financial system. Research has highlighted that the ability to understand financial concepts such as cash flow, taxation, income vs. expenses, operational costs, and capital requirements (Bateman et al., 2012; Worthington, 2013; Bartolacci et al., 2020).

Evidence to suggest that an individual's level of financial literacy can be linked to their management of self-managed superannuation funds is limited. The depth of the idea of financial literacy paired with the constantly evolving practices involved with the self-management of superannuation funds has made the link challenging to explore.

Fraud

Fraud is characterised by lying, cheating, and the overall use of deception for financial gain (Fletcher, 2007). Fraud is not new, having existed for centuries. While fraud originally targeted victims in face-to-face scenarios, current fraudulent attempts occur across a range of communication platforms, encompassing both online and offline approaches. The evolution of technology, while not creating fraud in and of itself, has enabled its expansion globally across a wider pool of potential victims (Yar and Steinmetz, 2019). Each year, victims lose millions of dollars to successful fraudulent approaches, and suffer from a range of financial and non-financial harms that can have severe and life-changing impacts (Button and Cross, 2017).

While there are an endless number of plotlines used by offenders in soliciting funds from victims (Cross and Kelly, 2016), there are some common categories of approaches used to target victims. Two popular methods include investment fraud (whereby a victim is persuaded to participate in a business opportunity that does not exist or is not what it is purported to be), and romance fraud (whereby an offender uses the guise of a genuine relationship to gain a financial reward from a victim). However, there are a multitude of other approaches including lottery schemes, inheritance notifications (Button and Cross, 2017), and more recently, schemes associated with cryptocurrencies (ACCC, 2021a). In all circumstances, the victim is deceived by the offender/s and is manipulated and coerced into sending money dependent on the circumstance they find themselves in. Victims may or may not realise they have been defrauded, and even if they do, they are unlikely to report for several reasons including the shame and stigma associated with victimisation (Cross, 2015). Consequently, fraud has one of the lowest reporting rates across all crime types (Button et al., 2014), with consistently less than one third of fraud estimated to make it to official reports (Schoepfer and Piquero, 2009). Further, it is estimated that online fraud has a lower reporting rate compared to offline contexts (Smith, 2007; 2008).

Offenders encourage a variety of methods in gaining funds from victims. This may include direct money transfers, payments through remittance agencies, the purchasing of goods (for later resale), the use of gift cards, and the payment of cryptocurrencies (such as Bitcoin). Offenders will use many well-established techniques (such as grooming, social engineering, psychological abuse) to convince a victim to comply with their requests for money (Drew and Cross, 2013; Cross et al., 2018). Victims will often access their savings and superannuation or may take out additional loans and/or mortgages to satisfy the demands of an offender. In addition, offenders may also perpetrate identity crime, using the personal details of their victims to gain access to other accounts and/or lines of credit.

In the current context, those who manage their own superannuation may be targeted by any of the above schemes and convinced to withdraw funds outside of the permitted regulatory framework. In many cases, these requests are from an offender to "borrow" funds from a victim, with the promise of repayment in the near future. However, this does not happen, and victims are left having lost money and having to deal with the legal consequences of having accessed their superannuation illegally.

Project methodology

To explore the relationship between financial literacy, fraud vulnerability and SMSFs, an online survey instrument was administered by Qualtrics (online survey panel provider) to 806 participants across Australia. To be eligible for the study, participants were required to be aged 18 years and older and have a SMSF in Australia. Ethics approval was received from Queensland University of Technology's Human Research Ethics Committee (#1900000882). Data was collected during a two-week period in November 2021.

The survey comprised of six distinct modules:

1. Demographics of participants
2. Questions about the establishment and nature of their SMSF
3. Ten questions on regular financial decision-making tasks taken from Hohn (2020), which establishes a score for financial literacy
4. Fifteen statements on fraud where respondents were asked to individually rate their level of agreement/disagreement, which was used to establish a score on fraud awareness
5. Questions that specifically asked about the withdrawal of funds from one's SMSF, across both COVID-19 and non-COVID-19 contexts
6. A request for any other comments related to the survey but not previously covered

This report provides an overview of the results as it relates to the four research questions outlined previously.

The current sample

Below is an overview of the demographics and characteristics of the 806 participants who responded to the survey.

The sample was evenly split across female (50.9%) and males (49.1%) (while an option was provided for non-binary, this was not selected by any participants in the final dataset). There was a distribution of age from 18 years up to 94 years of age. Half of the sample (51.1%) were aged between 24-44 years. The sample was targeted to be representative of the broader Australian population in terms of age, gender, and jurisdiction.

However, it is important to note that the current sample is remarkably different to what is known of the demographics of the whole SMSF population. The ATO report that as of 30 June 2021, of the total 1.114 million SMSF members, 53% were male and 47% were female. Therefore, the sample is over-represented with female SMSF holders. In terms of age, the ATO indicates that the average and the median age of all SMSF members was 61 years (ATO, 2021c). In this regard the sample is substantially younger, with the average age being 43.78 and the median age being 40 years.

The majority of the sample lived within the eastern states of Victoria (33%), New South Wales and (28.4%) and Queensland (17.4%). Almost three quarters of respondents (74.4%) lived within an urban or metropolitan area within the Australian states and territories. Almost half of the sample were living as part of a couple with child/ren (48.6%), followed by those living as part of a couple (no child/ren) (22.8%).

A very small percentage of the sample identified as Aboriginal and/or Torres Strait Islander (5.8%). The majority of participants were born in Australia (84.4%) and speak only English at home (88.7%). Of those born overseas, the majority were born in Asia (7.4%) and Europe (6%). Of languages other than English spoken at home, the most notable were the Chinese languages of Cantonese and Mandarin (collectively 2.7%).

Regarding education, a large proportion have completed an undergraduate degree (39.2%) or a tertiary diploma/trade certificate (28.7%). Almost three quarters of the sample are currently employed (across full time/part-time/casual and self-employed forms) (74.7%) with a smaller percentage retired or on a pension (12.8%). Of those currently working, the highest category of employment was manager (28.4%) followed by professional (17.9%).

The highest income category across respondents was $45,001 - $120,000 ($866 - $2,307 per week) (43.5%) followed by $120,001 - $180,000 ($2,308 - $3,461 per week) (20.1%) and $18,201 - $45,000 ($351 - $865 per week) (19.1%) respectively. This appears to be somewhat consistent with the overall SMSF member population, with the ATO reporting the average taxable income of SMSF members (as of June 2020) at AUD$116,437 with a median taxable income at AUD$64,655 (ATO, 2021c).

Financial literacy

One of the aims of the current research, was to ascertain the levels of financial literacy of those who manage their own superannuation, and further explore how this relates (if at all) to potential fraud victimisation of SMSFs.

To ascertain the level of financial literacy of each survey respondent, a set of ten questions were asked. These questions cover a range of financial decision-making contexts. This set of questions was taken from Hohn (2020) and has previously been used to determine levels of financial literacy in the general population.

Each question presented a problem and asked the respondent to select one of four options. Only one option was correct. Participants were instructed they could use a calculator if needed and no time limit was given.

The following table presents the number of SMSF members who answered each of the ten questions correctly.

	Frequency	Percent	Cumulative Percent
0	13	1.6	1.6
1	48	6.0	7.6
2	82	10.2	17.7
3	143	17.7	35.5
4	133	16.5	52.0
5	137	17.0	69.0
6	106	13.2	82.1
7	75	9.3	91.4
8	48	6.0	97.4
9	14	1.7	99.1
10	7	.9	100.0
Total	806	100.0	

Table 1 Level of financial literacy for SMSF members (n=806)

The above table indicates that a large proportion of the survey respondents were unable to correctly identify the appropriate response to the majority of the questions. The average number of correct responses was 4.47, the median value was 4, and the most frequent score was 3. Over half of the sample (52%) were only able to answer four or less of the questions correctly.

These scores were combined to create a grouping of participants based on their demonstrated levels of financial literacy. Those who answered 4 questions or less correctly were categorised as having low financial literacy, those who answered between 5-7 questions correctly were categorised as having moderate levels of financial literacy, and those who answered 8 questions or more correctly, were categorised as having high levels of financial literacy. An overview of these categories is presented below.

Figure 1 Category of financial literacy of SMSF members (n=806)

These results demonstrate a limited level financial literacy across SMSF members who participated in the current survey, with 52% of the sample achieving a low level of financial literacy, and only 8.5% achieving a high level of financial literacy.

Levels of financial literacy and demographics

The following examines the levels of financial literacy in terms of the gender of SMSF members.

Gender of SMSF member and level of financial literacy

		Financial Literacy level			
		Low	Moderate	High	Total
Gender of SMSF member	**Female**	230 (56.1%)	152 (37.1%)	28 (6.8%)	410 (100%)
	Male	189 (47.7%)	166 (41.9%)	41 (10.4%)	396 (100%)
Total		419 (52.0%)	318 (39.5%)	69 (8.6%)	806 (100%)

Table 2 Category of financial literacy of SMSF members by gender (n=806)

The above table demonstrates that females demonstrated a statistically significant higher percentage of those in the low-level category of financial literacy compared to males (p=0.033).

The following table examines the level of financial literacy with regards to the age groups of SMSF holders.

Age of SMSF member and level of financial literacy					
		Financial Literacy level			
		Low	Moderate	High	Total
Age groups	**18-24 years**	34 (8.1%)	21 (6.6%)	7 (10.1%)	62
	25-34 years	106 (25.3%)	79 (24.8%)	9 (13%)	194
	35-44 years	138 (32.9%)	62 (19.5%)	18 26.1%)	218
	45-54 years	82 (19.6%)	47 (14.8%)	9 (13%)	138
	55-64 years	30 (7.2%)	47 (14.8%)	15 (21.7%)	92
	65 years and older	29 (6.9%)	62 (19.5%)	11 (15.9%)	102
Total		419 (100%)	318 (100%)	69 (100%)	806

Table 3 Category of financial literacy by age (n=806)

The above demonstrates that among those aged 44 years and younger, more than half of the participants are in the low level of financial literacy category. In contrast, those aged 55 years and older, are more likely to fall in the moderate and high categories of financial literacy. In this way, those who are younger are more likely to have demonstrated lower levels of financial literacy in the current dataset (p=<0.001).

The following table examines the level of financial literacy of respondents against highest level of education attained.

Education level of SMSF member and level of financial literacy					
		Financial Literacy level			
		Low	Moderate	High	Total
Highest level of formal education achieved	**Primary or elementary school**	6 (1.4%)	4 (1.3%)	0	10
	Secondary or high school	85 (20.3%)	54 (17%)	5 (7.2%)	144
	Tertiary diploma/trade certificate	118 (28.2%)	93 (29.2%)	20 (29%)	231
	University undergraduate degree	167 (39.9%)	118 (37.1%)	31 (44.9%)	316
	University postgraduate degree	43 (10.3%)	49 (15.4%)	13 (18.8%)	105
Total		419 (100%)	318 (100%)	69 (100%)	806

Table 4 Education level of SMSF member and level of financial literacy (n=806)

The level of education did not appear to correlate with levels of financial literacy in the current sample (p=0.95 therefor no significance recorded).

The remainder of the report uses these categories of financial literacy (high, moderate, and low) to examine the establishment of SMSFs, the level of fraud awareness of SMSF members, and the experience of SMSF members in withdrawing funds from their superannuation.

Overview of participant's SMSF

A small block of questions asked participants for details of their SMSF and their decision to invest in this form of superannuation.

Respondents were asked when they first established their SMSF. As previously outlined, SMSFs were first introduced in Australia in 1999, therefore this is the starting point.

Year SMSF established

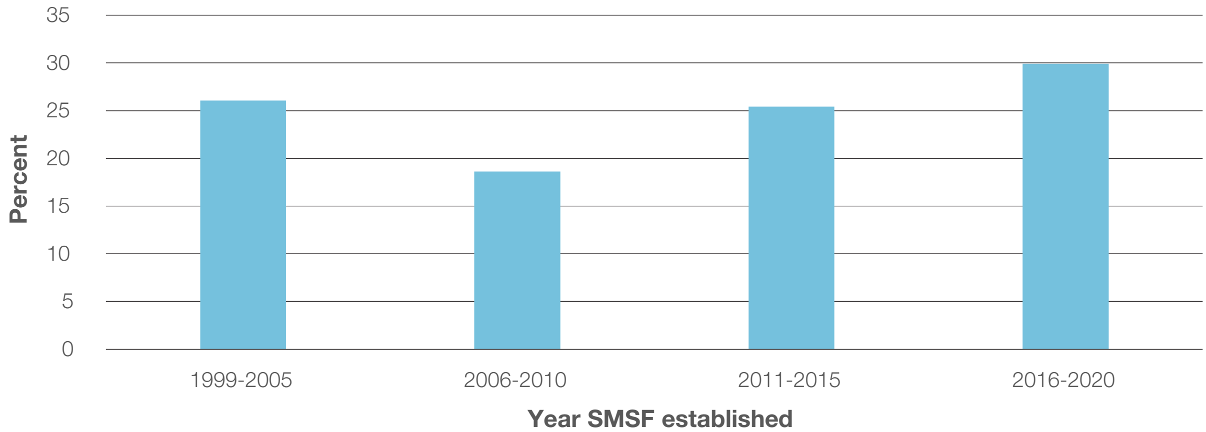

Figure 2 Year SMSF was established (n=806)

This demonstrates that there was an initial interest in the early years, and since then, SMSFs have grown steadily across each year period. The current sample contains a higher percentage of newer SMSF holder compared to the overall market, with the ATO indicating from its data in 2020-21, 62% of SMSFs had been established for more than 10 years (ATO, 2021c). In the current sample, this was only 44.7%.

This also aligns with the younger sample noted in the current project. It is clear that the current survey sample comprised a higher proportion of younger, more newly established SMSF members compared to the SMSF member population as a whole.

At the time of the survey, SMSF requirements stipulated that funds can have up to four trustees appointed to manage these funds. This has since been increased to six from 1 July 2021, however the current data does not reflect this recent change. The following presents a breakdown of the number of trustees per SMSF.

Figure 3 Number of trustees appointed to each SMSF (n=806)

This demonstrates that over half (57.2%) were sole trustees, followed by two trustees appointed in one third of circumstances (33.3%). The current sample is again remarkably different to the characteristics of the overall SMSF member profile. The ATO (2021c) indicate that SMSFs with two trustees are the dominant structure, accounting for 69% of all SMSF (as of 30 June 2020), with single trustees comprising only 24% of overall funds. The current sample is clearly weighted more heavily to sole trustees compared to those with more than one.

In looking at whether levels of financial literacy were correlated with the number of trustees appointed to each SMSF, this was not significant (p=0.103). However, it is still important to note that over half (52.5%) of those who are sole trustees (and therefore do not necessarily have the influence or assistance of any other trustee in their decision-making process), fell within the low-level category of financial literacy.

SMSF members were asked about the reasons they chose to invest in a SMSF. Several pre-determined options were given, with the ability to select more than one option. Results of this question are presented below.

Reason why respondents chose to establish a SMSF	Responses (n)	Percentage of all respondents
I wanted control over my own finances	601	74.6%
I did not trust a regulated superannuation fund	78	9.7%
I believe I can get a higher return through my own investment decisions	262	32.5%
I wanted to save money on administrative fees	169	21.0%
Other – I received advice from an accountant/financial adviser to do this	9	0.1%

Table 5 SMSF members reasons for establishing a SMSF

The above table indicates that the greatest motivating factor for choosing to invest in a SMSF is the desire to have personal control over one's finances. This was selected in almost three quarters of survey respondents. This was followed by the belief that SMSF members could achieve a higher return based on their own financial decisions, rather than those of regulated funds (32.5%).

The level of financial literacy was then examined for each of these reasons and is presented below.

Why did you choose to invest in an SMSF?				
	Financial Literacy level			
	Low	Moderate	High	Total
I wanted control over my own finances	300 (49.9%)	247 (41.1%)	54 (9.0%)	601 (100%)
I did not trust a regulated superannuation fund	45 (57.7%)	26 (33.3%)	7 (9.0%)	78 (100%)
I believe I can get a higher return through my own investment decisions	139 (53.1%)	96 (36.6%)	27 (10.3%)	262 (100%)
I wanted to save money on administration fees	75 (44.4%)	73 (43.2%)	21 (12.4%)	169 (100%)

Table 6 Reason for establishing a SMSF by category of financial literacy

The above table indicates that the those with a low level of financial literacy were the highest percentage across each of the statements for choosing the manage their own superannuation. For example, of the 601 who selected they wanted control, almost half (49.9%) fell within the category of low financial literacy, and only 9% were within the high level of financial literacy category. This was also the case with those who believed they could generate a higher return. Of the 262 SMSF members who selected this response, over half (53.1%) fell within the low level of financial literacy category. Only 10.3% of these respondents recorded a high level of financial literacy.

Fraud awareness

To measure the fraud awareness of SMSF members, a set of fifteen statements were presented to respondents. Each were asked to rate their level of agreement or disagreement to each statement on a four-point scale (strongly disagree = 1, disagree = 2, agree = 3, strongly agree = 4). Statements were both positive and negative in nature. A number of these statements had previously been used by Cross and colleagues (2021) in a larger study on the general public's perceptions and understandings of cybercrime.

Responses to each of these questions is presented below:

#	Statement	SD (%)	D (%)	A (%)	SA (%)	Mean	Median
1	Cybercrime is a serious problem in society today.	1.1	3.7	41.2	54.0	3.48	4
2	Fraud is a global problem.	0.7	3.6	33.0	62.7	3.58	4
3	Anyone can become a victim of fraud.	0.9	3.0	36.6	59.6	3.55	4
4	*Public understands the risk of being online.	6.2	30.4	40.4	23.0	2.80	3
5	*I am confident I could identify a fraudulent email in my inbox.	2.2	15.1	53.1	29.5	3.10	3
6	I would always conduct my own internet searches before making an investment.	0.9	6.3	46.4	46.4	3.38	3
7	*Most victims of fraud only lose money.	14.1	37.2	29.7	19.0	2.53	2
8	*The public understand the risks of fraud victimisation.	6.3	35.0	41.1	17.6	2.7	3
9	*Online fraud victims lose money as they do not pay attention to what they read.	3.3	23.8	47.8	25.1	2.95	3
10	*Citizens are probably aware of the risks about Internet use for commerce and financial transactions.	4.3	24.2	51.2	20.2	2.87	3
11	I would never send money to someone I met on the internet.	1.4	5.3	32.1	61.2	3.53	4
12	I control the security and privacy settings that I have on my accounts.	0.9	6.8	48.0	44.3	3.36	3
13	*Fraud victims are greedy, gullible and deserve what happens to them.	23.7	27.3	26.7	22.3	2.48	2
14	*Fraud victimisation would never happen to me.	11.0	42.4	30.9	15.6	2.51	2
15	*Fraud victimisation would never happen to my family.	13.8	44.5	25.2	16.5	2.44	2

Table 7 Statements used to determine level of fraud awareness

The above table indicates the variety of responses to each of the statements. To determine an overall score of fraud awareness, a value between 1-4 was given to the responses to each statement. Those with an asterisk (*) were negatively coded. The highest possible score was 60. The lowest score received was 29/60 and the highest score was 59/60. Similar to indicating levels of financial literacy, these fraud awareness scores were categorised into three categories, low fraud awareness (29-40), moderate fraud awareness (41-50) and high fraud awareness (51-60). It is acknowledged that this is an arbitrary classification in some ways, and that some of the statements could be interpreted differently. It is also acknowledged that these statements will not always directly lead to fraud victimisation. However, based on existing knowledge of fraud (Button and Cross, 2017), this is argued to be a useful indicator of overall fraud awareness and potential vulnerability to victimisation.

The table below presents the overall fraud awareness of the current SMSF member sample, based on the three categories outlined above.

	Frequency	Percent	Cumulative Percent
Low fraud awareness	367	45.5	45.5
Moderate fraud awareness	390	48.4	93.9
High fraud awareness	49	6.1	100.0
Total	806	100.0	

Table 8 Level of fraud awareness for SMSF member (n=806)

The above table indicates that almost half (48.4%) SMSF members fell within the moderate level of fraud awareness category. Further, a substantial number (45.5%) were classed with having low levels of fraud awareness. Only a small percentage (6.1%) were classed as having a high level of fraud awareness.

The proportion of those with moderate and low levels of fraud awareness can have significant implications on the well-being and vulnerability of respondents. This indicates that respondents ascribe to many of the myths and inaccuracies related to fraud and fraud victimisation, and may overestimate their ability to recognise, detect, and avoid fraudulent approaches.

The following table presents findings on the relationship between fraud awareness and financial literacy, using the groupings of low, moderate, and high.

Level of financial literacy and level of fraud awareness					
		Financial Literacy level			
		Low	Moderate	High	Total
Financial Literacy level	Low	268	136	15	419
	Moderate	89	204	25	318
	High	10	50	9	69
Total		367	390	49	806

Table 9 Level of fraud awareness by category of financial literacy (n=806)

The level of financial literacy of an individual is significantly related to their level of fraud awareness ($p=<0.001$). Those who had low levels of financial literacy are more likely to demonstrate lower levels of fraud awareness. Similarly, those with low fraud awareness are more likely to demonstrate lower levels of financial literacy.

In combination, this table demonstrates that there is a high proportion of SMSF members with low levels of financial literacy and fraud awareness which could potentially make them more vulnerable to successful fraudulent approaches. This is further explored in the next section.

Withdrawal of funds from SMSFs

SMSFs have clear regulations on when money may be withdrawn from the fund. Unlike a managed superannuation fund, which has third party gatekeepers to prevent the with withdrawal of funds, SMSFs can theoretically be accessed by their holders.

There are known cases whereby fraud victims with SMSFs have accessed their superannuation to fulfil and monetary request from a fraud offender (see Button and Cross, 2017; Cross et al., 2016, Marshall, 2018). As noted previously, the withdrawal of funds from SMSF holders is likely to have been on the assumption that they will be paid back by the offender, and therefore no harm or loss will ensue. However, when this doesn't occur, it can have substantial negative impacts on the individuals across both financial and non-financial aspects of their lives.

In all but a few prescribed circumstances, the withdrawal of funds prematurely from a SMSF can be classed as an offence. Permissible circumstances relate to compassionate grounds, severe financial hardship, terminal medical conditions, incapacity (temporary and permanent) as well as to assist first home buyers.

Given the timing of the survey, questions were also asked about the withdrawal of superannuation in relation to COVID-19. As noted, the Australian government allowed for the withdrawal of funds of up to AUD$10,000 in 2020/21 and a further amount up to AUD$10,000 in 2021/22 for those who experienced significant financial hardship stemming from the pandemic. This scheme was aimed at alleviating short term financial needs for those who were struggling with the effects of the pandemic on employment opportunities, lockdowns, and physical restrictions.

To capture this, the survey asked respondents about whether they had withdrawn from their SMSF under two contexts: first, those that related to COVID-19 and second, those that related outside of COVID-19. It is important to note that just because a person withdrew funds (particularly outside of the COVID-19 context), it may not be the result of fraud. However, there are indicators in some of the responses which point to fraud victimisation highlighted in the results presented below.

When asked about withdrawing funds in relation to COVID-19, 29.4% of respondents indicated they had done this. In looking at whether levels of financial literacy were significant, those with low levels of financial literacy were more likely to withdraw funds from their SMSF.

With the announcement of the scheme to allow for withdrawals of superannuation, fraud offenders used this as an opportunity to target potential victims. There were several media reports of fraudulent schemes, where offenders were offering their services for a fee, to determine if an individual was eligible (Bainbridge and Clark, 2020). In some cases, once a victim gave over their details, offenders withdrew funds on their behalf but kept them for themselves. Other offenders used personal information likely compromised in a data breach to set up accounts in the name of the victim and perpetrate identity crime (McGrath and McClymont, 2020). The Australian Competition and Consumer Commission (ACCC) released a fact sheet aimed at raising awareness of these targeted schemes (ACCC, 2020a).

As a result, a further question was asked of SMSF members as to whether they had been approached by anyone offering to determine their eligibility to withdraw funds or offering their services to assist in a withdrawal. Almost one quarter (23.4%) of respondents answered yes to this question, that they had been approached.

Of those who answered yes to this question (n=189), a follow up question asked whether or not the individual had given out any personal information or the details of their SMSF. Over half of this group (56.6%) selected yes, that they had given out personal information or details of the SMSF. This is a concerning finding, in that these circumstances point heavily towards the potential fraudulent victimisation of the SMSF members.

In looking at this group who gave out personal information or their SMSF details, there was no statistical significance as to their levels of financial literacy. However, there was a statistically significant relationship between those with low levels of fraud awareness ($p=<0.001$). Those in the category of low fraud awareness were more likely to have given out this information. This points heavily to the potential vulnerability of these SMSF holders to identity crime and future fraud victimisation.

The survey then moved on to ask respondents whether or not they had withdrawn funds from their SMSF prior to retirement outside of the context of COVID-19. Of the whole sample, almost one fifth of respondents (18.6%) selected yes to this question.

In looking at the relationship between withdrawal of funds prior to retirement outside of a COVID-19 context and levels of both financial literacy and fraud awareness, there was a statistically significant relationship between both, whereby those with low levels of financial literacy were more likely to withdraw their funds ($p=<0.001$), and those with low levels of fraud awareness were also more likely to withdraw their funds ($p=<0.001$).

An analysis was then undertaken to determine the different contexts in which withdrawal of funds from an individual's SMSF occurred. This is presented in the table below.

Withdrawal status of superannuation for SMSF members			
	Frequency	Percent	Cumulative Percent
COVID19 only	118	14.6	14.6
Non-COVID19 only	31	3.8	18.5
Both COVID19 and non-COVID19	119	14.8	33.3
Not withdrawn SMSF	538	66.7	100.0
Total	806	100.0	

Table 10 Withdrawal status of SMSF members (n=806)

This table demonstrates that there was some overlap in the reasons behind withdrawing funds, both related to COVID-19 and non-COVID-19 circumstances.

In looking at the relationship between these categories and levels of financial literacy and fraud awareness, there was a statistically significant relationship between both (both at p=<0.001). Those with low levels of financial literacy and low levels of fraud awareness were more likely to withdraw funds as a result of COVID-19 (both in isolation and in conjunction with non-COVID-19 circumstances).

Respondents were asked if they sought any advice or spoke to someone about their decision to withdraw funds. Three options were given, and respondents could select all that applied. Of those who responded, 4.6% indicated that they did not speak to anyone, 10% indicated that they spoke to their family, and 5.8% indicated that they spoke to a professional.

Respondents were then asked how much money in total they had withdrawn from their SMSF. The following table presents the results of this question.

Total amount withdrawn from SMSF

		Frequency	Percent	Valid Percent	Cumulative Percent
	$10,000 or less	37	4.6	24.7	24.7
	Between $10,001 and $50,000	32	4.0	21.3	46.0
	Between $50,001 and $100,000	43	5.3	28.7	74.7
	Between $100,001 and $500,000	33	4.1	22.0	96.7
	Over $500,001	1	.1	.7	97.3
	I'd prefer not to say	4	.5	2.7	100.0
	Total	150	18.6	100.0	
Missing	System	656	81.4		
Total		806	100.0		

Table 11 Amount withdrawn from SMSF by members (n=806)

The above table indicates that of those who nominated an amount that they withdrew, the largest percentage was for amounts between AUD$50,001 and AUD$100,000 (28.7%). This was followed by smaller amounts.

Respondents were further asked how they withdrew the funds. Three options were given, withdrawing the money from a bank or financial institution in cash, transferring the money to another account via a bank or financial institution, and transferring the money via a remittance agency (such as Western Union or MoneyGram). More than one could be selected. Of the small number of respondents who answered these questions, 8.6% withdrew the money in cash, 9.7% transferred the money via a bank or financial institution, and 1.4% transferred the money via a remittance agency.

Respondents were then asked as to whether they had withdrawn the funds in one transaction or multiple transactions. Of those who answered this question (n=149), 85.9% withdrew the funds in one transaction, with the remaining 14.1% withdrawing this across multiple transactions. Neither financial literacy nor fraud awareness were statistically significant with the number of withdrawals made by SMSF members.

Given the limited context in which to withdraw funds from a SMSF prior to retirement, and the potential consequences for this, respondents were asked directly as to whether they knew it was an illegal activity. Three options were presented which are detailed below.

Knowledge of SMSF withdrawal as illegal activity					
		Frequency	Percent	Valid Percent	Cumulative Percent
	No, I did not realise it was an illegal activity	298	37.0	37.1	37.1
	Yes, I did know that it was an illegal activity	396	49.1	49.3	86.3
	I did not know if it was wrong, and I was unsure how to check this	110	13.6	13.7	100.0
	Total	804	99.8	100.0	
Missing	System	2	.2		
Total		806	100.0		

Table 12 Knowledge of SMSF withdrawal as illegal activity (n=806)

The above table indicates that almost half (49.1%) of respondents selected that they knew it was an illegal activity but still chose to withdraw the funds. A substantial amount did not know this was the case (37%) with only a small percentage unsure (13.6%).

There is a statistically significant relationship between knowledge of SMSF withdrawal as an illegal activity and levels of financial literacy (p=<0.001). However, this indicates that those with higher levels of financial literacy were more likely to know it was an illegal activity compared to those with low levels of financial literacy. Levels of fraud awareness did not demonstrate any statistical significance.

The final question asked respondents to indicate if looking back, there was anything which would have stopped them from withdrawing funds from their SMSF. Of those who answered (n=148) 61.5% selected yes, with the remaining 38.5% indicating no. While not expanding on this question, it does suggest that there may be the potential use of interventions to reduce the number of withdrawals from SMSF members prior to retirement. In looking at the relationship between this question and levels of financial literacy and fraud awareness, there was no statistical significance with levels of financial literacy (p=0.21), but there was a significance with fraud awareness (p=0.004). This may also indicate that some of these individuals were subject to fraud victimisation, and hindsight may have afforded them the opportunity to protect their money.

Summary of the results

This research has explored the relationship with SMSF members in Australia and their levels of financial literacy, levels of fraud awareness, and their experiences of withdrawing funds prior to retirement.

This project set out to answer four research questions, which will be examined in turn.

1 What level of financial literacy do SMSF members have?

There is a very low level of financial literacy across SMSF members. Over half of the SMSF members (52%) who responded to the survey were categorised as having low levels of financial literacy, having achieved four or less correct answers out of set of ten questions to assess financial literacy. For individuals who have selected this superannuation option to maximise their financial benefits, this clearly highlights a discrepancy on what may actually be achieved.

2 What level of fraud awareness do SMSF members have?

There is also a low level of fraud awareness across the current sample of SMSF members. This is potentially dangerous as SMSFs are an attractive target for offenders, and a lack of knowledge of fraud can potentially contribute to an increased risk of victimisation. This may also extend to other areas of fraud aside from any approaches targeting SMSF.

3 What is the experience of SMSF members withdrawing their funds?

One third of survey respondents (33.3%) had withdrawn money from their SMSF prior to retirement. This was across both COVID-19 and non-COVID-19 contexts. The largest percentage of SMSF members withdrew between AUD$50-100K which is a significant amount of money to lose over the long term in superannuation. Respondents withdrew their funds across single and multiple transactions, using a combination of cash withdrawals, electronic transfers, and remittance agencies. Almost half of those who withdrew funds indicated that they were aware that the activity may be classed as illegal, and of those who withdrew funds (n=148), 61.5% said they could have been potentially stopped from withdrawing their funds.

4 How does financial literacy interact with fraud awareness and fraud vulnerability for SMSF members?

The results demonstrate that low levels of financial literacy and low levels of fraud awareness are evident within a notable proportion of those who hold a SMSF. These variables were significantly correlated across a variety of contexts, usually to the detriment of those within the category. In this way, the survey results point to both of these potentially increasing the vulnerability of SMSF members to successful fraudulent approaches and both monetary and personal information losses.

The project sought to test the following three hypotheses:

1. **SMSF members with lower levels of financial literacy will also have lower levels of fraud awareness.**

   This hypothesis was supported.

2. **SMSF members with lower levels of financial literacy will have withdrawn their funds more often than those with high levels of financial literacy.**

   This hypothesis was supported, but only in the context of those who withdrew funds as a result of COVID-19 by itself, or in conjunction with non-COVID-19 circumstances.

3. **SMSF members with low levels of fraud awareness will have withdrawn their funds more often than those with high levels of financial literacy.**

   This hypothesis was similarly supported, in the context of those who withdrew funds as a result of COVID-19 by itself, or in conjunction with non-COVID-19 circumstances.

It is clear that COVID-19 has an influential role in these last two hypotheses. In these cases, it is possible that the withdrawal of funds within the context of COVID-19 may simply indicate and reinforce the vulnerability and precarity of these individuals financially in the first place. This is further discussed below.

Implications of the results

In examining the above research questions and hypotheses, the results highlight several areas for attention.

It is a matter of significant concern that 52% of the SMSF members demonstrated a low level of financial literacy. Managing investments is a complex task and often demands skills way beyond the ability required to respond to the financial decision-making tasks included in the survey. This is potentially problematic for SMSF holders as a group, given their responsibility for making investment decisions that have a significant impact on their financial wellbeing into retirement. Also, given that one of the driving reasons for selecting to operate a SMSF rather than invest in a retail or industry managed fund, is the belief that individuals can generate higher returns than a managed fund. The low levels of financial literacy demonstrate a potentially large and negative discrepancy between SMSF holder expectations, and the likely reality faced by these individuals based on their actual levels of knowledge and financial literacy.

A similar argument can be made with regards to fraud awareness. The survey indicated that 45.5% of respondents were classed as having a low level of fraud awareness. This means that a significant number of the current SMSF holders are potentially vulnerable to fraudulent approaches, and may not recognise indicators of fraud, or employ actions to reduce the likelihood of victimisation. This was actively demonstrated by those who were approached by someone offering to determine their eligibility to withdraw funds or offer assistance to make a withdrawal during the COVID-19 pandemic, and who gave out personal details in response to these requests. These actions can very likely increase the chances of the individual SMSF holder being subjected to fraud and/or identity crime.

Of further significance is the overlap between those SMSF holders who were classed as having a low level of financial literacy and a low level of fraud awareness. This accounted for 268 or one third of respondents (33.3%). The combination of low financial literacy and low fraud awareness has the potential to expose individuals SMSF holders to negative outcomes, both in terms of their investment decisions and ability to generate returns on their investments, but also in terms of being more vulnerable and exposed to a higher chance of success for offenders targeting fraudulent approaches towards these individuals.

In terms of the withdrawal of funds from SMSFs, the results indicated that one third of respondents had made an early withdrawal of their funds, across both COVID-19 and non-COVID-19 related contexts. With the highest group having withdrawn between AUD$50,001-AUD$100,000, this is a substantial amount of money to remove from superannuation. It also goes beyond the COVID-19 context, given that this was capped at $20,000, and demonstrates a broader issue for those withdrawing funds. In the long term, there are severe negative impacts from having withdrawn such large amounts, which undoubtedly have a detrimental effect on the overall financial wellbeing and returns for SMSF holders. This is a broader issue related to SMSF which needs addressing.

The data also demonstrated a statistically significant relationship between both variables of low financial literacy and low fraud awareness. This indicates that individuals within these two categories were more likely to have withdrawn funds from their SMSFs. Again, this points to a need for further research to assess the long-term impacts of these withdrawals and the ability of SMSF holders to generate the desired positive return on investments that they are likely seeking.

In terms of potential fraud victimisation and SMSF holders, the current data highlights some areas of concern and clearly points to a greater degree of potential exposure and vulnerability of some SMSF holders. However, the results are not as straight forward as for financial literacy. As stated, not all withdrawals in the current context can be determined as fraud. However, for the small group of SMSF members who transferred their superannuation through a remittance agency, this is a strong red flag that they were being defrauded. Of the eleven SMSF members who transferred money via a remittance agency, nine were recorded as having a low level of financial literacy, and eight recorded a low level of fraud awareness. This small group is the most likely to have demonstrably been victims of fraud in the current context. The prevalence of bank transfers can also potentially be linked to fraud, given the rise in the use of money mules by offenders to launder funds within and external to Australia. Offenders may persuade the victim to make multiple withdrawals from their SMSF to comply with escalating and ongoing requests for money. In these circumstances, the data is likely to capture other victims of fraud in this context.

An interesting finding relates to the question on whether SMSF holder knew that a withdrawal of their funds may be illegal (given the restricted circumstances under which one can access funds prematurely). Almost half of those who had withdrawn funds selected that they knew it was illegal but withdrew the funds anyway. Levels of financial literacy were again significant in this context, but it was those who recorded higher levels of financial literacy who were more likely to select this response. This may not be surprising on one level, given it can be assumed that those with higher levels of financial literacy may be aware and conversant in the regulations that surround SMSFs. Regardless, their decision to withdraw funds under these circumstances is worthy of further investigation.

Lastly, the results indicate that of those who did withdraw funds, when asked if there was anything that would have stopped them from withdrawing, 61.5% indicated in the affirmative. This is perhaps one of the most positive findings, which suggests the potential effectiveness of an appropriately targeted intervention to reduce the numbers of those withdrawing funds. It is also possible that those who withdrew funds as a result of fraud victimisation, and who have been subsequently made aware of their fraud victimisation, may have selected this option with the benefit of hindsight.

Overall, the findings of the current research highlight some critical areas for improvement as it relates to levels of financial literacy, fraud awareness and the ability of SMSF holders to withdraw funds prematurely from their accounts. To exacerbate this, the current survey was heavily weighted to a younger demographic of SMSF holders, as well as a higher percentage of sole trustees compared to the broader population of SMSF holders. This provides an even greater need to immediate action, given the long-lasting detrimental impacts these actions and decisions can have on the financial wellbeing of individuals when they attain retirement. The higher number of sole trustees indicates those who may not have any other person to assist in their decision-making process, in terms of their financial investment decisions as well as voicing any suspicions over fraudulent requests. There is a large group of SMSF holders who appear to be isolated in this way, and unlikely to gain any input from third parties as to the benefits or risks of their actions.

Recommendations

The above results point to a clear need for immediate actions to be taken as they relate to the levels of financial literacy and fraud awareness of SMSF holders. This report provides for three recommendations.

Those who establish a SMSF usually do so for greater control of their finances and a belief that they can achieve higher returns than a retail or industry managed fund. While the ATO clearly advise individuals to seek financial advice as to whether a SMSF is the right option for them, this may not be occurring in practice. In the short term, it may be beneficial to require (or strongly encourage) those establishing a SMSF to undertake a financial literacy test, to increase their self-awareness of their own levels of financial literacy and how this might impact on their ability to manage their own funds.

Recommendation #1

Provide individuals with the ability to self-administer a financial literacy test, to increase awareness of their own financial abilities prior to establishing a SMSF.

The overall low level of fraud awareness for SMSF holders means that individuals are potentially more vulnerable to being successfully victimised by fraudsters, both across schemes targeted at superannuation as well as those more broadly.

Recommendation #2

Develop an awareness campaign specifically designed for SMSF holders, to highlight the types of approaches they might encounter and strengthen their overall knowledge of the reality of fraud victimisation and how it occurs.

Current knowledge levels around the restricted circumstances for withdrawal, and the long-term impacts of withdrawing funds on account balances is clearly an area for improvement. Given the number of respondents who indicated with hindsight, they may have reconsidered withdrawing funds, there is clearly an opportunity to tailor an intervention at this point to reduce the likelihood of withdrawals in these circumstances.

Recommendation #3

Develop an appropriate intervention which prompts SMSF holders to reconsider if they wish to withdraw funds prematurely, as intended.

References

Arnold, B. R., Bateman, H., Ferguson, A., and Raftery, A. (2014). The size, cost, and asset allocation of Australian self-managed superannuation funds. *CIFR Paper*, 33.

Australian Competition and Consumer Commission (ACCC). (2021a). *Investment scams*. Available at: https://www.scamwatch.gov.au/types-of-scams/investments/investment-scams.

Australian Competition and Consumer Commission (ACCC). (2021b). *Targeting Scams: Report of the ACCC on scam activity 2020*. Available at: https://www.accc.gov.au/publications/targeting-scams-report-on-scam-activity/targeting-scams-report-of-the-accc-on-scam-activity-2020.

Australian Competition and Consumer Commission (ACCC). (2020a). *Superannuation early-access scams fact sheet*. Available at: https://www.accc.gov.au/publications/superannuation-early-access-scams-fact-sheet.

Australian Competition and Consumer Commission (ACCC). (2020b). *Targeting Scams: Report of the ACCC on scam activity 2019*. Available at: https://www.accc.gov.au/publications/targeting-scams-report-on-scam-activity/targeting-scams-2019-a-review-of-scam-activity-since-2009

Australian Taxation Office (ATO). (2021a) *Conditions of release*. Available at: https://www.ato.gov.au/super/self-managed-super-funds/paying-benefits/conditions-of-release/.

Australian Taxation Office (ATO). (2021b). *COVID-19 early release of super interim report: 2019-20 applications*. Available at: https://www.ato.gov.au/uploadedFiles/Content/SPR/downloads/DE-24171_ERS_Interim-report_2019-20_applications-T1_W.pdf.

Australian Taxation Office (ATO). (2021c). *SMSF Profile*. Available at: https://www.ato.gov.au/Super/Self-managed-super-funds/In-detail/Statistics/Annual-reports/Self-managed-super-funds--A-statistical-overview-2019-20/?page=2.

Augustyn, M. Elshaer, I. and Akamavi, R. (2021). Competing models of quality management and financial performance improvement. *The service industries journal* 41(11/12): 803-831.

Bainbridge, Am. And Clark, E. (2020). Identity theft soars during COVID-19 as scammers target government payments, superannuation. *ABC News*. Available: https://www.abc.net.au/news/2020-08-17/identity-theft-soars-with-coronavirus-scams-accc-reports/12558622

Bartolacci, F., Caputo, A. and Soverchia, M. (2020). Sustainability and Financial Performance of SMEs: A Bibliometric and Systematic Literature Review. *Business Strategy and the Environment* 29(3): 1297-1309.

Bateman, H., Ebling, C., Geweke, J., Louviere, J., Satchell, S. and Thorp, S. (2012). Financial competence and expectations formation: Evidence from Australia. *Economic Record* 88: 39–63.

Bird, R., Foster, F., Gray, J., Raftery, A., Thorp, S., and Yeung, D. (2018). Who starts a self-managed superannuation fund and why? *Australian Journal of Management* 43(3): 373-403.

Butler, D., and Noah, K. (2019). Self-managed superannuation funds: Grotesquely unreasonable. *Law Institute Journal* 93(8): 32-35.

Button, M. and Cross, C. (2017). *Cyberfraud, Scams and their Victims*. London: Routledge.

Button, M., McNaugton Nicolls, C., Kerr, J., and Owen, R. (2014). Online frauds: Learning from victims why they fall for these scams. *Australian and New Zealand Journal of Criminology* 47 (3): 391–408.

Cross, C. (2015). No laughing matter: Blaming the victim of online fraud. *International Review of Victimology* 21(2): 187-204.

Cross, C., Dragiewicz, M. and Richards, K. (2018). Understanding Romance Fraud: Insights from Domestic Violence Research. *British Journal of Criminology* 58 (6): 1303-1322.

Cross, C. and Kelly, M. (2016). The problem of 'white noise': Examining current prevention approaches to online fraud. *Journal of Financial Crime* 23(4) 806-828.

Cross, C. Richards, K., and Smith, R. (2016). *Improving the response to online fraud victims: An examination of reporting and support*. Canberra: Australian Institute of Criminology.

Drew, J. and Cross, C. (2013) Fraud and its PREY: conceptualising social engineering tactics and its impact on financial literacy outcomes. *Journal of Financial Services Marketing* 18(3): 188-198.

Fletcher, N. (2007). Challenges for regulating financial fraud in cyberspace. *Journal of Financial Crime* 14 (2): 190-207.

Guest, R. and M. Brimble. (2018). Policy: Financial Literacy 101. *Journal of Public Policy and Ideas* 34(1): 3-7

Hohn, S. (2020). *Financial decision making in late adulthood.* PhD thesis, Queensland University of Technology, Brisbane.

Klapper, L. and Lusardi, A. (2020). Financial literacy and financial resilience: Evidence from around the world. *Financial Management* 49(3): 589-614.

Mahendru, M., Sharma, G., and Hawkins, M. (2020). Toward a new conceptualization of financial well-being. *Journal of Public Affairs*. DOI: 10.1002/pa.2505.

Marshall, J. (2018). *Romance scam survivor: The whole sordid story*. Australia: Sangam Enterprises.

McGrath, P. and McClymont, A. (2020). Check your super balance. Australians scammed out of thousands via the coronavirus early release scheme. *ABC News*. Available at: https://www.abc.net.au/news/2020-06-01/scammers-stealing-thousands-through-coronavirus-super-scheme/12301010.

Moneysmart. (n.d.) *Self-managed super funds (SMSF): Understand if an SMSF is right for you*. Available at: https://moneysmart.gov.au/how-super-works/self-managed-super-funds-smsf.

Russell, R., Kutin, J., and Marriner, T. (2020). *Financial capability research in Australia*. Melbourne, VIC: RMIT University.

Schoepfer, A., and Piquero, N. (2009). Studying the correlates of fraud victimization and reporting. *Journal of Criminal Justice* 37(2): 209–215.

Smith, R. G. (2007). Consumer scams in Australia: An overview. *Trends and Issues in Crime and Criminal Justice* 331: 1–6.

Smith, R. G. (2008). Coordinating individual and organizational responses to fraud. *Crime Law and Social Change* 49(5): 379–396.

Thorp, S., Bird, R., Foster, F., Gray, J., Raftery, A., and Yeung, D. (2021). Experiences of current and former members of self-managed superannuation funds. *Australian Journal of Management* 46(2): 304-325.

Xue, R., Gepp, A., O'Neill, T., Stern, S., and Vanstone, B. (2019). Financial literacy amongst elderly Australians. *Accounting and Finance* 59(1): 887-918.

Worthington, A. (2013). Financial Literacy and Financial Literacy Programmes in Australia. *Journal of Financial Services Marketing* 18(3): 227-240.

Yar, M. and Steinmetz, K. (2019). *Cybercrime and Society* (3rd ed). London: Sage.

QUT Centre for Justice

For more information contact:

https://research.qut.edu.au/centre-for-justice/

qutc4j@qut.edu.au

@CrimeJusticeQUT