



Investigating selected self-management competencies of managers



Authors:

Zandri Steyn¹ Louis J. van Staden¹ 

Affiliations:

¹School for Business Studies,
North-West University,
South Africa

Corresponding author:

Louis van Staden,
louis.vanstaden@nwu.ac.za

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Orientation: Self-management serves as an essential managerial competency and entails taking responsibility for one's own actions and behaviour. The problem is that managers who do not have effective self-management competencies may affect business adversely.

Research purpose: The study investigated selected self-management competencies of managers within the manufacturing industry of South Africa.

Motivation for the study: The researchers wanted to focus on selected self-management competencies of managers rather than all the managerial competencies.

Research design, approach and method: A quantitative research method was employed by following a descriptive design and data were obtained using a well-structured self-administered questionnaire.

Main finding: The results revealed that a significant and positive relation exists between managers' integrity and ethical conduct, and between personal drive and resilience, as well as a significant positive relationship between work-life balance on the one hand and self-awareness and self-development on the other – all of which are components of their self-management competency.

Practical/managerial implications: For managers to contribute to the success of a business, it is essential that they succeed in applying self-management competencies to distinguish them from their competitors.

Contribution/value-add: No previous studies could be found investigating the relationship between integrity and ethical conduct, and between personal drive and resilience, as well as between work-life balance on the one hand and self-awareness and self-development on the other.

Introduction

There is no uncertainty about the fact that the 21st century will continuously be characterised by chaotic, transformational and rapid change regarding technological, political and economic transitions (Whetten & Cameron 2011:3). Singh, Oberoi and Ahuja (2013:1442) argue that the manufacturing industry in recent times has undergone unusual change caused by the uncertain environmental dynamism. Evidence of the 21st century's changing dynamism in the manufacturing environment is found in technology businesses that are becoming manufacturers, for example, the driverless cars developed by Google and ride-share apps such as Uber and Lyft (Ngulube 2014:4). As a result of the unpredictable rapid changing dynamism, businesses face a variable environment characterised by fast transformation in technologies, common differences in the demand of customers and strong fluctuations in material supply (Singh et al. 2013:1442).

Ngulube (2014:2) notes that variation in the manufacturing industry is vital for increasing future growth projections. When comparing South Africa's manufacturing industry with those of the Philippines, China, India and Brazil, the demand for goods from this sector fluctuated dramatically which prevents it from taking advantage of favourable market conditions and sustainable growth (Prinsloo 2017:3). Statistics South Africa (Stats SA 2017:2) reports that the total income of the manufacturing industry has increased by 9% per annum compared to that stated in the 2011 conforming survey. The increasing growth affects the success of a business' performance on the market and emphasises the importance of managerial competencies (Singh & Kamba 2016:140). Given these anticipated and unpredictable changes in the competitive manufacturing environment, managers have identified competencies and abilities essential to prosperity in the dynamic environment (Karp 2012:127). Owing to this dynamism, businesses are encouraged to bestow

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greater responsibility on managers to develop their self-management competencies (Boyce, Zaccaro & Wisecarver 2010:161). Furthermore, Singh et al. (2013:1442) recognise the importance of managerial competencies, which enable the alignment of flexibility development when considering the challenges for manufacturing managers presented by the external environment. Managers fulfil a decisive role in influencing the efficiency or failure of a business as it depends on managers to drive business strategies which increase efficiency and effectiveness, explore opportunities and identify potential threats in the market (Anzengruber et al. 2017:134). It is therefore essential that managers possess specific managerial skills and self-management competencies to effectively reach business goals and objectives (Verle et al. 2014:922).

Problem statement

All managers, despite their management level, need to possess specific important competencies to perform optimally in a management position (Lazenby 2015:6). Erasmus et al. (2013:171) state that management is of vital importance to keep the business in balance with its environment. For managers to be responsible for their life at work and outside of work, it is essential for them to have strong self-management competencies at their command (Hellriegel et al. 2013:43). In the business context, this entails that managers should be capable of developing their own goals as well as opportunities and to obtain resources that will enable them to adapt to the work environment (Symington 2012:46). Ross (2014:300) adds that if managers can lead themselves, they will be equally able to lead others. Strydom et al. (2015:55) confirm that self-management is an essential competency required from managers to be successful and with that to contribute to business success.

Within the business environment, integrity is vital for developing relationships of trust between managers and investors (Coulson-Thomas 2013:32). When managers do not portray integrity, relations with investors will be damaged which will result in them selling their shares, the dwindling of customer numbers and employees possibly not working effectively or resigning (Coulson-Thomas 2013:32). Ethics are essential when decision-making is considered; ethical decision-making is, therefore, essential when setting goals for business success (De Janasz, Dowd & Schneider 2012:57).

Hellriegel et al. (2013:43) explain that the two traits, personal drive and resilience, are essential when a manager sets out to do something no one else has done before and which could possibly result in setbacks and failures.

The work-life balance dimension embraces managers' competency, despite their age or gender, to integrate work and everyday responsibilities effectively (Wheatley 2012:815), resulting in decreased struggle between work and non-work activities and improving the manager's role, either associated with work or non-work-related activities (Kaiser et al. 2011:10).

For business success, it is also vital for managers to be self-aware, assuming that self-awareness is conducive to a manager's understanding of the business environment, which in turn will lead to increased productivity, suitable career and life goals being set and adding to the favourable outcome of the business (De Janasz et al. 2012:6). Sutton, Williams and Allinson (2015:612) state that the attention in the workplace is increasingly focused on observing the benefit of self-awareness, recognising that self-aware managers are more effective and that they have subordinates who are more satisfied than do less self-aware managers. The problem then can be summarised that a lack of self-management competencies can disadvantage a business in general as well as its competitive advantage over the competitors. Hence, the aim of this research study was to determine the extent to which self-management competencies were present in managers and also to determine if there is a relationship between some of the self-management competencies.

Research objectives

The main aim of the study was to obtain insight into the self-management competencies of managers in the manufacturing industry.

To achieve the main aim of this study, the following objectives were formulated:

- to investigate the extent of managers' integrity and ethical conduct as components of their self-management competency;
- to evaluate managers' personal drive and resilience as components of their self-management competency;
- to explore managers' work-life balance as a component of their self-management competency;
- to appraise managers' self-awareness and self-development as components of their self-management competency.

The following alternative hypotheses were formulated for the study.

According to Walumbwa, Hartnell and Misati (2017:14), ethical leadership can be described as the demonstration of normatively appropriate conduct through personal drive and interpersonal relationships. Without good ethics, it is extremely difficult for a leader to develop integrity, authenticity, an identity or other traits that produce effective leadership. Engelbrecht, Wolmarans and Mahembe (2017:370) found a positive correlation between ethical leadership and job dedication, which is a major element of work engagement. Work ethics is part of ethics and it refers to the moral principle of employees towards their work and while engaging in performing their work and they also state that integrity affects most of the individual work behaviour (Zarim & Zaki 2016:132-133).

H1: A significant and positive relation exists between managers' integrity and ethical conduct, on the one side and personal drive and resilience on the other side, both of which are components of their self-management competency.

This association between self-awareness and positive work-life balance demonstrates that preparation to improve self-awareness has the potential to bring real benefits to management as well as the business (Sutton et al. 2015:612). To strengthen a work-life balance culture and thus positively influence innovative performance, businesses must be effective in developing their staff (Cegarra-Navarro, Sánchez-Vidal & Cegarra-Leiva 2015:375). Friedman, Lorai and Salter (2017:1) mention that for them it is not so much about striving for a work-life balance, but more so striving for self-awareness.

H2: A significant and positive relation exists between managers' work-life balance on the one hand and self-awareness and self-development on the other hand – all of which are components of their self-management competency.

Literature review

Griffin (2017:5) defines management as all the activities directed at an organisation's resources with the aim of achieving the organisational goals in an efficient and effective manner. Management, as Botha and Musengi (2012:73) see it, is essential in any business with regard to ensuring that business successes are achieved. Mullins (2013:424) explains that management encompasses all activities of the business and is not separated as an individual function. In other words, management cannot be departmentalised or centralised. Williams (2014:5) defines management as arranging activities so that it can be performed by others. Managers' tasks therefore mainly involve enabling employees to work together with a view to accomplish specific business goals and objectives (Mullins 2013:424). According to Alsemgeest et al. (2017:93), one way to deal with rapid transformation and ever-increasing competition within the business environment is to be aware of the required managerial competencies linked to performance.

Managerial competencies can be described as a set of knowledge, skills, behaviours and attitudes that a person needs and develops to be effective in their profession and within the organisation (Alsemgeest et al. 2017:91). Competency is defined as a primary characteristic of an individual, which involves motives, skills and attributes or knowledge and experience applied by an individual (Chuttipattana & Shamsudin 2011:119; Jena & Sahoo 2014:144; Organisation for Economic Cooperation and Development 2010:4). Managerial competencies have a valuable purpose and serve as the improvement of the specific performance management method, which includes benefits for the business and the employee alike (Krajcovicova, Caganova & Cambal 2012:1122). For this research, the attention will be drawn to managers' self-management managerial competencies, and in particular their set of skills which are continuously applied and recur over time.

Self-management

According to Alsemgeest et al. (2017:79), self-management refers to the behaviour that an individual must adopt to see the desired change in his or her life and at the workplace. Botha

and Musengi (2012:73) suggest that before people can become managers for businesses, they should know who they themselves are. Knowing who you are relies heavily on your capacity for self-management (Schermerhorn 2013:10). Self-management involves intentionally undertaking activities that complement personal attributes such as honesty, trustworthiness and reliability (Botha & Musengi 2012:73). Within the business context, Daft et al. (2015:24–25) describe that self-management embraces individuals' efforts to manage their personal activities and decision-making by assessing complications and formulating detailed goals and tactics in order to address those problems. Symington (2012:46) adds that career self-management includes formulating one's own goals and opportunities as well as being able to search for new resources to enable easier adaptation to the work environment. Thus, it is essential for managers to be capable of leading themselves to be competent towards leading others. Leadership entails that one can take responsibility for and have control over one's personal actions (Ross 2014:300).

According to Hellriegel et al. (2013:53), self-management as a managerial competency involves ethical conduct and integrity, personal drive and resilience, self-awareness and self-development as well as work-life balance. For purposes of this research, the focus will be centred on these four competencies to fully understand what is required of managers with regard to self-management.

Integrity and ethical conduct

Nowadays managing ethics is considered a key issue in business. Shaw (2017:4) describes business ethics as a study of what constitutes right and wrong, or good and bad, human conduct in a business context. To be ethically and socially accountable is considered to be important for numerous businesses in order to uphold viability and for the business' license to operate (Valentine, Hollingworth & Eidsness 2014:692). The demand being placed on businesses to be ethical by various stakeholders is becoming more complex and challenging in these days (Crane & Matten 2017:13).

Ethical decision-making involves identifying an ethical issue, considering an ethical ruling, deciding on 'right' and 'wrong' and finally, acting ethically (Swartz 2017:8). Ethical values have a major effect on managerial decision-making and it is therefore imperative for managers to understand that their ethical principles influence their decision-making, which is linked to behavioural approaches such as policies and propensity for risk (Daft et al. 2015:175). Because of these outlooks, it has become vital for managers to employ individuals who hold the dynamics to be ethical, as well as to create value-driven ethical approaches (Valentine et al. 2014:693). Ethical challenges are frequently linked to issues that managers face regarding their behaviour towards several stakeholders, colleges, clients, suppliers, shareholders, the government and the public (Valentine et al. 2014:695).

In business context, integrity is essential for establishing relationships of trust, specifically between managers and

stakeholders (Coulson-Thomas 2013:32). It is therefore essential for managers to be trustworthy and honest in order for them to engage and connect with employees, customers and stakeholders, which will lead to developing permanent relationships and to inspiring networking. Coulson-Thomas (2013:32) emphasises that not having integrity involves the following consequences: harm established long-term relationships with stakeholders, investors deciding to sell their stock, customers taking business to another business and employees possibly underperforming or resigning.

Personal drive and resilience

Alam et al. (2015:388) define personal drive as an individual's acceptance (or self-assurance) concerning his or her capabilities to gather enthusiasm, mental resources and development of tasks required to effectively accomplish a detailed activity within an agreed framework. In a managerial context, Ismail (2015:689) refers to personal drive as the value of a person's motivation or attempt to achieve specific managerial tasks to perform the behaviours essential for an effective job. When an individual holds a high level of personal drive, it is believed that the individual will see the negative feedback as motivation and reverse it into a more positive manner to encourage better job performance (Alam et al. 2015:388). Hellriegel et al. (2013:43) explain that both personal drive and resilience are essential when a manager sets out to do something no one else has done before and therefore can possibly face setbacks and failures. Resilience is regarded as the capacity that helps people and organisations respond well to challenge, setback and even crisis. It describes the ability to 'bounce back', to recover and respond with commitment and optimism (Winbolt 2017:2).

Personal work goals and objectives introduce a new dynamic perspective on the interaction between managers' work environments as they reflect the expected, professional career-associated purpose, which is balancing the challenges and opportunities of their career as well as different life aspects (Hyvönen et al. 2015:1036). Because objectives provide improved focus and present a stable framework for goal achievement, managers are more goal-oriented, and achieving goals enables an achievement evaluation and supports positive attitude growth (Ross 2014:313).

Balancing work–life dimension

Work–life balance has turned out to be a universal discussion about management and business life (Koubova & Buchko 2013:700). Defining work–life balance is relatively straightforward. For purposes of this research, the work–life balance represents an individual's understanding of whether his or her work and non-work actions are well-suited and support growth with his or her current life concerns and priorities (Koubova & Buchko 2013:700; Pasamar & Cabrera 2013:91). Wheatley (2012:815) adds that being able to achieve this successfully, one is competent in achieving work–life balance. Moreover, work and life does not allude to an equivalent weighting of work and life, but instead indicates a suitable, constant link between the two. However, work–life

balance will possibly vary noticeably among individuals. Wheatley (2012:815) further explains that the balance may change, depending on the individual or employer demands. This concept becomes complex when considering an individual's restricted resources such as time, energy and money. A problem emerges when an individual attempts to have a successful personal life as well as to be able to deliver good work that leads to excellent results (Koubova & Buchko 2013:700).

Managers and employees spend much of their lives at work; therefore, the variables that add to the changing environment have an influence on their well-being and furthermore on their work efficiency (Kalliath & Kalliath 2012:730). Alsemgeest et al. (2017:81) argue that when managers implement work–life balance successfully, it may lead to better personal development, as well as better personal and team performance. Mitsakis and Talampekos (2014:44) note that in the business context, in order to promote work–life balance, businesses should develop policies that may assist with the employment and retention process as well as in the working environment, which will then lead to better realisation of employee efficiency.

Self-awareness and self-development

Self-management competencies are related to and build upon self-awareness. Developing self-control, such as formulating goals, supports managers in giving direction to their own life and workplace (Alsemgeest et al. 2017:79). Frost (2014:126) refers to self-awareness as a continuous venture; being able to question yourself at any specific point in time is built upon large amounts of self-awareness development experience. Sutton et al. (2015:611) point out that self-awareness is a noteworthy notion, which indicates the degree to which individuals are knowingly conscious of their interactions or associations with others and also of their inner conditions.

In business context, De Janasz et al. (2012:5) explain that self-awareness is the initial dynamism which enables work productivity, built on the belief of experiencing work satisfaction. Self-awareness is also linked to vital results such as increased job satisfaction (De Janasz et al. 2012:6) and more effective career decisions (Sutton et al. 2015:612). Self-awareness additionally enables an in-depth understanding of the business in which individuals are working, which leads to improved efficiency, successful management of subordinates, relationship development, suitable career and life-goal selection, which all contribute to business success (De Janasz et al. 2012:6).

In essence, being self-aware facilitates individuals in understanding their own behaviours and in realising the impact of their behaviours on others' work and personal life (Daft & Marcic 2014:57). The benefit of self-awareness is being observed to a greater extent in business, in recognising that self-aware managers have more satisfied subordinates than do managers with limited self-awareness (Sutton et al. 2015:612).

Research methodology

The design and methods according to which the study was executed as well as procedures for data analysis are presented below.

Research design

To gain insight into the self-management competencies of managers in the manufacturing industry, this research applied a quantitative, descriptive, exploratory research design. McDaniel and Gates (2013:66) explain that the purpose of descriptive research is to answer 'who', 'what', 'when', 'where' and 'how' questions. By using a quantitative research method, a rich descriptive type of research (conclusive research) was conducted in an objective and systematic method, which was used to sample a target market and the responses were measured using a structured data collection method (Feinberg, Kinnear & Taylor 2013:234).

Target population and sampling

For purposes of this research, the target population was identified as top- and middle-level managers of manufacturing businesses in South Africa. The targeted areas included four provinces in South Africa, namely Free State, North West, Gauteng and Western Cape Provinces. A detailed definition of the target population is essential (Neelankavil 2015:234), given that a target population has an influence on the validity of the research (Whitley & Kite 2012:485).

A non-probability sampling method was followed. Feinberg et al. (2013:304) suggest that a non-probability sampling technique can be used when the population element is grounded on the judgement of the researcher, given that only top- and middle-level managers of manufacturing businesses were identified. A non-probability sampling method allows data collection, on condition that the possibility of a respondent being selected is unknown (Whitley & Kite 2012:486). A convenience non-probability sampling method was utilised because the sample selected was not complex, associated with reduced cost and was voluntarily available to the fieldworkers (Feinberg et al. 2013:304). In order for the study to be valid, a minimum of 300 respondents was compulsory (Zhao 2009). A total of 343 top- and middle-level managers from 53 manufacturing businesses completed the questionnaires. The fieldworkers distributed the questionnaires and collected them after completion, whereafter the questionnaires were returned to the researcher.

Measuring instrument and pretesting of the questionnaire

A self-administered, structured questionnaire was developed for data collection purposes. The questionnaire contained structured questions with the purpose of meeting the identified objectives of this study.

The questionnaire comprised two sections, A and B. Section A, which consisted of seven questions, aimed at defining the demographic profile of the respondents. Section B, which

included 44 questions, measured the managers' insights into their self-management competencies, specifically focusing on their integrity and ethical conduct, personal drive and resilience, work-life balance and self-awareness and self-development. The questions were all closed-ended except for question 2 of section A, which was open-ended. A 5-point labelled Likert scale was used, where 1 = 'poor', 2 = 'fair', 3 = 'good', 4 = 'very good' and 5 = 'superior'.

In order to test for clarity purposes, a pilot study was administered. The pilot study included 30 respondents who did not form part of the sample for the final study. Burns and Bush (2014:229) suggest that it is essential to conduct a pilot study to identify possible problems such as wording or difficulty among respondents to complete the questionnaire. Once several minor formulation adjustments were made, the questionnaire was finalised and then distributed by trained fieldworkers.

Data collection procedures

Ten trained fieldworkers who had gained experience during pre- and postgraduate studies distributed the questionnaires. Each fieldworker selected 30 respondents based upon convenience in the Free State, North West, Gauteng and the Western Cape Provinces in South Africa. The purpose of the research was explained and the respondents were also assisted with any problems they might have encountered during completion of the questionnaire.

Data analysis

Once the primary data had been collected, it was analysed. Zikmund and Babin (2010:66) are of the opinion that the most appropriate analytical method for data analysis is determined by taking into consideration management's information needs, the nature of the research design and the characteristics of the data collected. For purposes of cleaning, capturing, editing and analysing the data, the Statistical Package for Social Sciences (SPSS version 23) was used. The steps followed for data analysis were as follows: (1) validity and reliability of the measuring instrument were determined using confirmatory factor analysis (CFA) and Cronbach's alpha coefficients; (2) descriptive results were reported (including frequencies, percentages, mean scores and standard deviations); (3) hypotheses were tested using Pearson's product moment correlation test.

Psychometric properties of the measuring instrument

Content validity and construct validity were inspected followed by an investigation into reliability.

Content validity

The content validity of a measuring instrument refers to the degree to which the items in the constructs illustrate the concepts that are being researched (McDaniel & Gates 2013:290).

Content validity according to Feinberg et al. (2013:131) involves subjective judgement by experts as to the appropriateness of the measurement. It is therefore used to obtain adequate reporting of the research questions controlling the research. If the instrument contains a representative sample of the research concept, then content validity is good (Cooper & Schindler 2014:257).

Researched theories, articles and books mainly focusing on the self-management competencies of managers were used to develop the items (Hellriegel et al. 2013:430). To ensure that the four scales in the questionnaire were representative of the constructs being tested, a detailed analysis and evaluation was conducted. Experts in the field of business management at North-West University were consulted to appraise whether the items measuring the constructs would represent the concepts effectively. Hence, the instrument was considered content valid.

Construct validity

Cooper and Schindler (2014:257) define validity as the central measure of quality of the measuring instruments in research, which determines the degree to which a questionnaire was able to measure what it was intended to measure. A CFA is the best single method for judging construct validity. It inspects how well the factor structure fits the actual research findings (Babin & Zikmund 2016:552). Therefore, a CFA was conducted to statistically test the validity of the constructs. A Measuring Sample Adequacy (MSA) (Kaiser–Meyer–Olkin measure of sampling adequacy) was used to measure the construct validity. Field (2013:695) explains that an MSA result of 0.50 is the acceptable limit.

Construct validity for integrity and ethical conduct: Considering the first construct ‘integrity and ethical conduct’, the MSA was calculated as 0.76 (which is above the acceptable cut-off point 0.50). Furthermore, the five items that measured integrity and ethical conduct could be reduced to one factor explaining 55.63% of the variance, with communalities on the various items varying from 0.51 to 0.62.

Construct validity of personal drive and resilience: An MSA of 0.79 was obtained for the second construct ‘personal drive and resilience’. The CFA confirmed that the five items measuring this construct could be reduced to one factor, explaining 53.83% of the variance, with communalities varying from 0.39 to 0.65.

Construct validity of balancing work and life dimension: An MSA of 0.84 was obtained for the third construct ‘balancing work and life dimension’. The CFA confirmed that the five items measuring the construct could be reduced to one factor explaining 60.15% of the variance, with communalities on the items varying from 0.51 to 0.68.

Construct validity of self-awareness and self-development:

For the last construct ‘self-awareness and –development’ an MSA of 0.868 was obtained. The CFA confirmed that the seven items measuring this construct could be reduced to one factor, explaining 55.10% of the variance, with communalities varying from 0.46 to 0.62.

Thus, the measuring instrument was found to be construct valid.

Reliability

Reliability indicates the internal consistency of a measuring instrument (Babin & Zikmund 2016:280). Table 1 illustrates the reliability coefficients for the four constructs investigated in this research. The values of Cronbach’s alpha coefficient range from 0 to 1, and a value of 0.7 indicates the desired level of reliability (Babin & Zikmund 2016:280). As seen in Table 1, the alpha coefficients vary between 0.78 and 0.86, indicating good to very good reliability.

Ethical considerations

Participants participated voluntarily in the research. The fieldworkers gave a short explanation of the research in order for the participants to understand the purpose thereof. Participating respondents were entitled to withdraw at any moment. The researcher or the fieldworkers did not influence the situation of the participants that might have had an impact on the outcome of the participant answers. The research consists of factors related to the job or organisation effectiveness conducted in the organisational settings for which there is no risk to participants’ employability, and the participants’ confidentiality is protected. The needs of the participants were considered and their concerns were addressed accordingly. Information regarding the date when the research was completed and when feedback can be given was communicated to the participants.

Results of empirical study

The following section will present the results in accordance with the identified research objectives. The first objective was to compile a limited demographic profile of the respondents.

Demographic profile of respondents

The respondents comprised 68.80% men and 31.2% women; thus, a strong male dominance. Regarding age, 41.2% of the respondents were between 40 and 49 years of age, followed by 28% between 30 and 39 years of age and lastly, 18.9% who were between 50 and 59 years of age,

TABLE 1: Cronbach’s alpha values for the measurement sets.

Construct	Number of items	Cronbach’s alpha coefficient
Integrity and ethical conduct	5	0.80
Personal drive and resilience	5	0.78
Work–life balance	6	0.86
Self-awareness and self-development	7	0.86

7.2% between 20 and 29 years of age, 4.4% between 60 and 69 years of age and lastly 0.3% older than 70 years of age. Not many of the respondents (30.30%) had completed matric, whereas 27.7% held a business degree or diploma. The majority of the respondents (63.8%) were appointed at the middle-management level followed by 36.2% as top-level managers.

Results pertaining to the four constructs

According to Hellriegel et al. (2013:53), self-management as a managerial competency involves work–life balance, ethical conduct and integrity, self-awareness and self-development and personal drive and resilience. The mean scores and standard deviations for each item in the four constructs are presented in Tables 2–5, in which 1 = poor performance and 5 = superior performance.

TABLE 2: Respondents' integrity and ethical conduct.

Respondents' integrity and ethical conduct	N	M	SD
I have clear personal standards that serve as a foundation for maintaining a sense of integrity and ethical conduct	343	4.27	0.70
I maintain personal ethical standards under pressure	343	4.23	0.72
I am sincere and do not only tell people what they want to hear	343	4.04	0.80
I recognise my own mistakes and admit to having made them	343	4.17	0.80
I accept responsibility for my actions	343	4.38	0.65
Average	-	4.22	0.74

N, number; M, mean; SD, standard deviation.

TABLE 3: Respondents' personal drive and resilience.

Personal drive and resilience	N	M	SD
I take on more responsibility that my position requires	343	4.18	0.81
I am willing to innovate and take personal risks	343	3.91	0.80
I am ambitious and motivated to achieve goals	343	4.17	0.70
I work hard to get things done	343	4.32	0.66
I show perseverance in the face of obstacles	343	4.13	0.69
Average	-	4.14	0.73

N, number; M, mean; SD, standard deviation.

TABLE 4: Work–life balance competencies.

Work–life balance competencies	N	M	SD
I strike a reasonable balance between work and other life activities	343	3.56	1.04
I take good care of myself mentally and emotionally	343	3.64	0.91
I use constructive outlets to vent frustration and reduce tension	343	3.44	0.98
I make time to exercise	343	3.02	1.21
I eat properly every day	343	3.27	1.08
Average	-	3.42	1.04

N, number; M, mean; SD, standard deviation.

TABLE 5: Respondents' self-awareness and self-development.

Respondents' self-awareness and self-development	N	M	SD
I have clear personal goals	343	3.95	0.83
I pursue my career/business goals in a balanced way	343	3.70	0.84
I live my personal values	343	4.05	0.77
I know my personal strengths and growth areas	343	4.06	0.71
I accept responsibility for continuous self-development	343	3.99	0.74
I develop plans and seek opportunities for personal long-term growth	343	3.90	0.82
I analyse and learn from work and life experiences	343	4.13	0.78
Average	-	3.97	0.78

N, number; M, mean; SD, standard deviation.

Managers' integrity and ethical conduct

The second objective was to investigate managers' integrity and ethical conduct as components of their self-management competency, and the findings are presented in Table 2.

It is evident from Table 2 that the responses to these scale items are positive and there is overall agreement between the perceived levels of integrity and ethical conduct ($\bar{x} = 4.22$; $SD = 0.74$). The mean scores for this construct varied between $\bar{x} = 4.04$ and $\bar{x} = 4.38$ on a 5-point Likert scale. The highest mean score ($\bar{x} = 4.38$; $SD = 0.65$) was obtained for the statement 'I accept responsibility for my actions'. It has become vital for managers to employ individuals who hold the dynamics to be ethical, as well as to create values-driven ethical approaches (Valentine et al. 2014:693). The item which was least agreed upon is the statement 'I am sincere and do not only tell people what they want to hear' ($\bar{x} = 4.04$; $SD = 0.80$).

Managers' personal drive and resilience

The third objective was to evaluate managers' personal drive and resilience as components of their self-management competency. Table 3 illustrates the findings.

It is evident from Table 3 that the responses to these scale items are indicative of a high personal drive and resilience ($\bar{x} = 4.14$; $SD = 0.73$). The highest mean score ($\bar{x} = 4.32$; $SD = 0.66$) was measured on the statement 'I work hard to get things done'. The item 'I am ambitious and motivated to achieve goals' obtained a mean score of $\bar{x} = 4.32$ and $SD = 0.70$. Ross (2014:313) suggests that motivated managers are goal-oriented because goals offer focus, and accomplishing these goals is a measure of achievement and contributes to a positive attitude. The statement 'I am willing to innovate and take personal risks' obtained the lowest score ($\bar{x} = 3.91$; $SD = 0.80$).

Managers' work–life balance

The fourth objective was to explore managers' work–life balance as a component of their self-management competency. Table 4 presents the findings.

Table 4 depicts that the responses to these scale items are fairly positive. The average mean score to work–life balance ($\bar{x} = 3.42$; $SD = 1.04$) is to some extent lower than the mean scores for the other three constructs. This is contradictory to the ideal situation proffered by Koubova and Buchko (2013:700), who suggest that if a manager can successfully have a personal life and is also capable of delivering good work, it leads to excellent results. The highest mean score ($\bar{x} = 3.64$; $SD = 0.91$) was measured for the statement 'I take good care of myself mentally/emotionally'. The statement which was least agreed upon is the statement 'I make time to exercise' with a mean score of $\bar{x} = 3.02$ and a standard deviation score of $SD = 1.21$.

Managers' self-awareness and self-development

The fifth objective was to appraise managers' self-awareness and self-development as components of their self-management competency. Table 5 presents the findings.

Table 5 portrays a high level of self-awareness and self-development ($\bar{x} = 3.97$; $SD = 0.78$). The mean scores varied between $\bar{x} = 3.70$ and $\bar{x} = 4.13$. The item 'I pursue my career/business goals in a balanced way' obtained a score of $\bar{x} = 3.70$ and $SD = 0.84$. Sutton et al. (2015:612) explain that a positive link between self-awareness and positive life and work outcomes reveals that evolving the enhancement of being self-aware is likely to bring real benefits to individuals and businesses. The highest mean score ($\bar{x} = 4.13$; $SD = 0.78$) was measured for the statement 'I analyse and learn from work and life experiences', whereas the statement which was least agreed upon ($\bar{x} = 3.70$; $SD = 0.84$) is the statement 'I pursue my career/business goals in a balanced way'.

Hypothesis testing

The hypothesis is an assumption or theory guess used in research regarding some characteristics of the population under study (McDaniel & Gates 2013:472). For the hypothesis testing, a correlation analysis was administered. A small p -value ≤ 0.05 indicates strong evidence against the null hypothesis; thus, the null hypothesis can be rejected (McDaniel & Gates 2013:481). When a large p -value > 0.05 is obtained, it represents poor suggestion against the null hypothesis; thus, the null hypothesis cannot be rejected (Pallant 2010:134). If $p < 0.05$, the hypothesis (H1 or H2) cannot be rejected. If $p > 0.05$, the hypothesis (H1 or H2) can be rejected.

The following alternative hypotheses were formulated for the study:

H1: A significant and positive relation exists between managers' integrity and ethical conduct, on the one side and personal drive and resilience on the other side, both of which are components of their self-management competency.

H2: A significant and positive relation exists between managers' work-life balance on the one hand, and self-awareness and self-development on the other – all of which are components of their self-management competency.

The Pearson's product moment correlation coefficients are stated in Tables 6 and 7.

Concerning hypothesis 1, 'a significant and positive relation exists between managers' integrity and ethical conduct as well as between personal drive and resilience – all of which are components of their self-management competency', the results are as follows:

Table 6 depicts a p -value of 0.000. It was therefore found to be smaller than 0.05, illustrating a statistically significant relation (Pallant 2010:134). Hence, a significant relation exists between managers' integrity and ethical conduct as well as between personal drive and resilience – all of which are components of their self-management competency. The Pearson correlation coefficient ($r = 0.577$) is larger than 0.5 and smaller than 1.0, which means that a strong and positive relation exists between managers' integrity and ethical conduct as well as between their personal drive and resilience (Pallant 2010:128). Hypothesis 1 can therefore be accepted.

TABLE 6: Pearson correlation coefficients – Integrity and ethical conduct as well as personal drive and resilience.

Variables	Total integrity and ethical conduct	Total personal drive and resilience
Total integrity and ethical conduct		
Pearson correlation	1	0.577*
Significance (2-tailed)	-	0.000
N	342	343
Total personal drive and resilience		
Pearson correlation	0.577*	1
Significance (2-tailed)	0.000	-
N	343	343

N, number; *, Correlation is significant at the 0.01 level (two-tailed).

TABLE 7: Pearson correlation coefficients – Work-life balance as well as self-awareness and self-development.

Variables	Total work-life balance	Total self-awareness and self-development
Total work-life balance		
Pearson correlation	1	0.545*
Significance (2-tailed)	-	0.000
N	343	343
Total self-awareness and self-development		
Pearson correlation	0.545*	1
Significance (2-tailed)	0.000	-
N	343	343

N, number; *, Correlation is significant at the 0.01 level (two-tailed).

Regarding hypothesis 2, namely that a significant and positive relation exists between managers' work-life balance on the one hand and self-awareness and self-development on the other – all of which are components of their self-management competency, the results obtained are as follows: The p -value (0.00) in Table 7 is smaller than 0.05, representing a statistically significant relation (Pallant 2010:134). Therefore, a significant relation exists between managers' work-life balance on the one hand and self-awareness and self-development on the other – all of which are components of their self-management competency. The Pearson correlation coefficient ($r = 0.55$) is larger than 0.5 and smaller than 1.0, which indicates a strong and positive relation between managers' work-life balance on the one hand and self-awareness and self-development on the other – all of which are components of their self-management competency (Pallant 2010:128). Hypothesis 2 can therefore be accepted.

Discussion and implications

The knowledge and skills of managers, which are dependent on managerial knowledge and competencies, define business success (Verle et al. 2014:924). Self-management as a managerial competency is increasingly contributing to the personal success of a manager in the working environment, which leads to the enhancement of business success (Strydom et al. 2015:55). Self-management is essential for managers to be able to set goals for themselves, to set up a plan with a view to accomplish their goals and to execute the specified plans (Mullins 2013:480). Ross (2014:301) explains that certain conditions are required from managers to be competent in managing themselves. Hellriegel et al. (2013:53) suggest that self-management as a managerial competency involves work-life balance, ethical conduct and integrity, self-awareness and self-development, and personal drive and resilience.

The purpose of this study was to investigate selected self-management competencies of top- and middle-level managers in manufacturing businesses in South Africa. Quality literature sources on the managerial competencies in manufacturing industries of South Africa are limited; therefore, the literature background of this research article was grounded on international studies and other scholarly sources found on specific self-management competencies of managers.

The results of this study portrayed that there was a strong male dominance of managers and they mostly fell within the older age range. It was further clear that respondents expressed a positive approach to all four competencies tested, namely integrity and ethical conduct, personal drive and resilience, work-life balance and self-awareness and self-development. It can therefore be assumed that managers of certain manufacturing businesses in South Africa consider the selected self-management competencies as being an essential component of effective management, which relates to research conducted by Daft et al. (2015:24–25) who concluded that managerial competencies outline an important aspect of business success.

The findings further indicate that considering the four constructs, respondents rated integrity and ethical conduct as the most important self-management competency in which they are able to engage in. Mullins (2013:683) suggests that a high level of ethics leads to efficient decision-making in the business context. Concerning even further improvement of integrity and ethical conduct at work, it is advised that managers of manufacturing businesses create ethical policies and an ethical culture and strive towards an ethical management philosophy. Respondents rated their personal drive and resilience as the second most important competency to implement. Schermerhorn (2013:217) confirms that managerial success is dependent on resilience and Alam et al. (2015:388) support this by stating that a high level of personal drive enables managers to successfully execute their tasks. The competency which was rated third most important to engage in was self-awareness and self-development. De Janasz et al. (2012:5) also deem this competency important and explain that self-awareness assists an individual in understanding the business in which he or she is operating. To enhance self-awareness and self-development further, managers could endeavour to understand their emotions as well as to determine how these emotions may affect others. Individuals can learn and develop competencies through practice, feedback and study. Lastly, the respondents indicated according to their lowest mean score of the four constructs that they find it challenging to maintain a work-life balance. Kaiser et al. (2011:10) advocate that achieving work-life balance effectively results in a series of benefits for managers such as reduced conflict between work and non-work domains, as well as the individual's role being enhanced, be it related to work or not.

These results were supported by previous research on managerial competencies including self-management (De Janasz et al. 2012:6; Hellriegel et al. 2013:43; Lounsbury et al. 2016:434; Ross 2014:300) and the relations thereof to

business success (Strydom et al. 2015:55). Their results suggest that self-management enhances managers' work efficiency, which in turn influences the success of the business. Hellriegel et al. (2013:43) as well as Ketola (2012:471) also emphasise the importance of managerial self-management and the effect thereof on business performance.

The findings further indicate that integrity and ethical conduct, as well as personal drive and resilience were found to be statistically significantly related to their self-management competency. This implies that managers with a high level of integrity and ethical conduct will also have command over substantial drive and resilience. Managers' work-life balance as well as self-awareness and self-development – all of which are components of their self-management competency – were also found to be statistically significantly related, implying that managers who are attuned to self-awareness and self-development will be able to balance their work-life dimensions well.

Conclusion

Top- and middle-management level managers in this study revealed good to very good self-management competencies, which include integrity and ethical conduct, personal drive and resilience, work-life balance and self-awareness and self-development. Findings of the hypothesis testing showed positive relations between managers' integrity and ethical conduct and personal drive and resilience as well as between managers' work-life balance and self-awareness and self-development. The self-management competencies of managers in the manufacturing industry seem to be satisfactory but can always be further enhanced by making the managers aware of the important role of the four above-mentioned competencies for business success. The male dominance of managers is one of the concerns and the age of managers could also be looked into as most of the managers fell within the older age range.

The biggest contribution of this study is that if managers have a good knowledge of the identified competencies and associated key elements thereof, they can enhance personal as well as business performance. The limitation of the study was that it was conducted only in the manufacturing sector and in selected provinces in South Africa. Therefore, future research should be conducted in other sectors and provinces in South Africa.

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Competing interests

The authors declare that they have no financial or personal relationships that may have inappropriately influenced them in writing this article.

Authors' contributions

Z.S. wrote this article as part of a dissertation for an M.Com qualification at the North-West University and L.J.v.S. served as the supervisor of the study.

References

- Alam, S.S., Mohd, R., Kamaruddin, B.H. & Nor, N.G.M., 2015, 'Personal values and entrepreneurial orientations in Malay entrepreneurs in Malaysia', *International Journal of Commerce and Management* 25(4), 385–401. <https://doi.org/10.1108/IJCoMA-01-2013-0001>
- Alemgeest, L., Booyens, K., Bosch, A., Boshoff, S., Botha, S., Cunningham, P. et al., 2017, *Introduction to business management: Fresh perspective*, Pearson, Cape Town.
- Anzengruber, J., Goetz, M.A., Nold, H. & Woelfle, M., 2017, 'Effectiveness of managerial capabilities at different hierarchical levels', *Journal of Managerial Psychology* 32(2), 134–148. <https://doi.org/10.1108/JMP-12-2015-0451>
- Babin, B.J. & Zikmund, W., 2016, *Exploring marketing research*, 11th edn., Cengage, Boston, MA.
- Botha, S. & Musengi, S., 2012, *Introduction to business management: Fresh perspectives*, Pearson, Cape Town.
- Boyce, L.A., Zaccaro, S.J. & Wisecarver, M.Z., 2010, 'Propensity for self-development leadership attributes: Understanding, predicting and supporting performance of leader self-development', *The Leadership Quarterly* 21(1), 159–178. <https://doi.org/10.1016/j.leaqua.2009.10.012>
- Burns, A.C. & Bush, R.F., 2014, *Marketing research*, 7th edn., Pearson, Harlow.
- Cegarra-Navarro, J., Sánchez-Vidal, M. & Cegarra-Leiva, D., 2015, 'Linking unlearning with work-life balance: An initial empirical investigation into SMEs', *Journal of Small Business Development* 54(1), 373–391. <https://doi.org/10.1111/jsbm.12151>
- Chuttipattana, N. & Shamsudin, F.M., 2011, 'Organizational culture as a moderator of the personality-managerial competency relationship', *Leadership in Health Services* 24(2), 118–134. <https://doi.org/10.1108/17511871111125693>
- Cooper, D.R. & Schindler, P.S., 2014, *Business research methods*, 12th edn., McGraw-Hill, New York.
- Coulson-Thomas, C., 2013, 'Integrity and the boardroom', *Strategic Direction* 29(6), 32–34. <https://doi.org/10.1108/SD-05-2013-0026>
- Crane, A. & Matten, D., 2017, *Business ethics*, Oxford University Press, Cape Town.
- Daft, L.R., Marcic, D., Griffin, R.W. & Van Fleet, D.D., 2015, *Management skills*, Cengage, Hampshire.
- Daft, R.L. & Marcic, D., 2014, *Building management skills: An action-first approach*, South-Western Cengage, Mason, OH.
- De Janasz, S.C., Dowd, K.O. & Schneider, B.Z., 2012, *Interpersonal skills in organizations*, 4th edn., McGraw-Hill, New York.
- Engelbrecht, A.S., Wolmarans, J. & Mahemba, B., 2017, 'Effect of ethical leadership and climate on effectiveness', *Journal of Human Resource Management* 15, 1–8.
- Erasmus, B.J., Strydom, J.W. & Rudansky-Kloppers, S., 2013, *Introduction to business management*, 9th edn., Oxford University Press Southern Africa, Cape Town.
- Feinberg, F.M., Kinnear, T.C. & Taylor, J.R., 2013, *Modern marketing research: Concepts, methods, and cases*, 2nd edn., Cengage, Andover, MA.
- Field, A., 2013, *Discovering statistics using IBM SPSS Statistics*, 4th edn., Sage, London.
- Friedman, N., Lorai, K. & Salter, L., 2017, *Here's why managers should stop pushing their employees to achieve work-life balance*, viewed 25 October 2017, from <http://www.businessinsider.com/broad-stulberg-peak-performance-work-life-balance-self-awareness-office-career-employees-managers-2017-9>
- Frost, J., 2014, 'Values based leadership', *Industrial and Commercial Training* 46(3), 124–129. <https://doi.org/10.1108/ICT-10-2013-0073>
- Griffin, R.W., 2017, *Management*, Cengage, Hampshire.
- Hellriegel, D., Slocum, J., Jackson, S.E., Louw, L., Staude, G., Amos, T. et al., 2013, *Management*, 4th South African edn., Oxford University Press, Cape Town.
- Hyvönen, K., Rantanen, J., Huhtala, M., Wiese, S.B., Tolvanen, A. & Feldt, T., 2015, 'Conflicting personal goals: A risk to occupational well-being', *Journal of Managerial Psychology* 30(8), 1034–1048. <https://doi.org/10.1108/JMP-04-2013-0105>
- Ismail, H., 2015, 'Gender differences in personal values: A business perspective', *International Journal of Commerce and Management* 25(4), 687–698. <https://doi.org/10.1108/IJCoMA-10-2013-0104>
- Jena, S. & Sahoo, C.K., 2014, 'Improving managerial performance: A study on entrepreneurial and leadership competencies', *Industrial and Commercial Training* 46(3), 143–149. <https://doi.org/10.1108/ICT-10-2013-0066>
- Kaiser, S., Ringlstetter, M.J., Eikhof, D.R. & Cunha, M.P., 2011, *Creating balance? International perspectives on the work-life integration of professionals*, Springer, Heidelberg.
- Kalliath, T. & Kalliath, P., 2012, 'Changing work environments and employee wellbeing: An introduction', *International Journal of Manpower* 33(7), 729–737. <https://doi.org/10.1108/01437721211268285>
- Karp, T., 2012, 'Developing oneself as a leader', *Journal of Management Development* 32(1), 127–140. <https://doi.org/10.1108/02621711311287080>
- Ketola, T., 2012, 'Losing yourself: Managerial persona and shadow pressures killing responsible leadership', *Journal of Management Development* 31(5), 470–487. <https://doi.org/10.1108/02621711211226051>
- Koubova, V. & Buchko, A.A., 2013, 'Life-work balance', *Management Research Review* 36(7), 700–719. <https://doi.org/10.1108/MRR-05-2012-0115>
- Krajcovicova, K., Caganova, D. & Cambal, M., 2012, 'Key managerial competencies and competency models in industrial enterprises', in *Annals of DAAAM for 2012 & Proceedings of the 23rd International DAAAM Symposium*, vol. 23, no. 1, p. 1122, viewed n.d., from http://www.daaam.info/Downloads/Pdfs/proceedings/proceedings_2012/1119_Krajcovicovaatal.pdf
- Lazenby, K., 2015, *General management*, Van Schaik, Pretoria.
- Lounsbury, J.W., Sundstrom, E.D., Gibson, L.W., Loveland, J.M. & Drost, A.W., 2016, 'Core personality traits of managers', *Journal of Managerial Psychology* 31(2), 434–450. <https://doi.org/10.1108/JMP-03-2014-0092>
- McDaniel, C. & Gates, R., 2013, *Marketing research: Student version*, 9th edn., Wiley, Hoboken, NJ.
- Mitsakis, F.V. & Talampekos, G., 2014, 'Work life balance (WLB) and flexibility in paid work (FPW) for "Generation Y": A discussion', *Business and Management Horizons* 2(1), 34–46. <https://doi.org/10.5296/bmh.v2i1.5466>
- Mullins, L.J., 2013, *Management and organisational behaviour*, 10th edn., Pearson, Harlow.
- Neelankavi, J.P., 2015, *International business research*, Routledge, New York.
- Ngulube, B., 2014, *What is the future of manufacturing in South Africa?* viewed 23 November 2016, from http://www2.deloitte.com/content/dam/Deloitte/za/Documents/manufacturing/za_what_is_the_future_of_manufacturing_summary_20082014.pdf
- Organisation for Economic Cooperation and Development, 2010, *Improving research performance in science and technology: The role of evaluation*, OECD Publishing, Paris.
- Pallant, J., 2010, *SPSS survival manual*, 3rd edn., McGraw-Hill, New York.
- Pasamar, S.V. & Cabrera, R., 2013, 'Work-life balance under challenging financial and economic conditions', *International Journal of Manpower* 34(8), 961–974. <https://doi.org/10.1108/IJM-07-2013-0172>
- Prinsloo, C., 2017, *Boosting South Africa's economic relations with BRICS*, vol. 131, Institute for Global Dialogue, pp. 1–8, viewed n.d., from <http://www.igd.org.za/downloads/Global%20Insight/Boosting%20South%20Africa%20s%20Economic%20Relations%20with%20the%20BRICS%20By%20Cyril.pdf>
- Ross, S., 2014, 'A conceptual model for understanding the process of self-leadership development and action-steps to promote personal leadership development', *Journal of Management Development* 33(4), 299–323. <https://doi.org/10.1108/JMD-11-2012-0147>
- Schermerhorn, J.R., Jr., 2013, *Introduction to management*, 12th edn., Wiley, New York.
- Singh, C.D. & Khamba, J.S., 2016, 'Structural equation modelling for manufacturing competency and strategic success factors', *International Journal of Engineering Research in Africa* 19(1), 138–155.
- Singh, D., Oberoi, S.J. & Ahuja, I.S., 2013, 'An empirical investigation of dynamic capabilities in managing strategic flexibility in manufacturing organizations', *Management Decision* 51(7), 1442–1461. <https://doi.org/10.1108/MD-05-2012-0332>
- Shaw, W.H., 2017, *Business ethics*, Cengage, Hampshire.
- Statistics South Africa (Stats SA), 2017, *Gross domestic product: First quarter 2017*, Statistical release P0441, viewed 10 July 2017, from <http://www.statssa.gov.za/publications/P0441/P04411stQuarter2017.pdf>
- Strydom, J., Bruwer, J., De Beer, A., Holtzhausen, M., Kiley, J., Maritz, M. et al., 2015, *Principles of business management*, 3rd edn., Oxford University Press, Cape Town.
- Sutton, A., Williams, H.M. & Allinson, C.W., 2015, 'A longitudinal, mixed method evaluation of self-awareness training in the workplace', *European Journal of Training and Development* 39(7), 610–627. <https://doi.org/10.1108/EJTD-04-2015-0031>
- Swartz, M.S., 2017, *Business ethics*, Wiley, West Sussex, UK.
- Symington, N., 2012, 'Investigating graduate employability and psychological career resources', MCom dissertation, University of Pretoria.
- Valentine, S., Hollingworth, D. & Eidsness, B., 2014, 'Ethics-related selection and reduced ethical conflict as drivers of positive work attitudes', *Personnel Review* 43(5), 692–716. <https://doi.org/10.1108/PR-12-2012-0207>
- Verle, K., Markič, M., Kordrič, B. & Zoran, A.G., 2014, 'Managerial competencies and organizational structures', *Industrial Management and Data Systems* 114(6), 922–935. <https://doi.org/10.1108/IMDS-01-2014-0019>
- Walumbwa, F.O., Hartnell, C.A. & Misati, E., 2017, 'Does ethical leadership enhance group learning behavior? Examining the mediating influence of group ethical conduct, justice climate, and peer justice', *Journal of Business Research* 72, 14–23. <https://doi.org/10.1016/j.jbusres.2016.11.013>
- Whetten, D.A. & Cameron, K.S., 2011, *Developing management skills*, 8th edn., Pearson Education, Upper Saddle River, NJ.
- Whitley, B.E. & Kite, M.E., 2012, *Principles of research in behavioral science*, 3rd edn., Routledge, East Sussex.
- Williams, C., 2014, *Effective management: A multimedia approach*, 6th edn., South-Western Cengage Learning, Mason, OH.
- Winbolt, B., 2017, *Personal and professional development*, viewed 16 October 2017, from <http://www.barrywinbolt.com/resilience/>
- Zarim, Z.A. & Zaki, H.O., 2016, 'Ethics and integrity in building employee's perceptions', *Management Studies* 4(3), 131–137.
- Zhao, N., 2009, *The minimum sample size in factor analysis*, viewed 23 August 2016, from <https://www.encyclopedia.com/entry/nzhao/The+Minimum+Sample+Size+n+Factor+Analysis>
- Zikmund, W.G. & Babin, B.J., 2010, *Exploring marketing research*, 10th edn., Cengage, Mason City, IA.