When life gives you lemons make lemonade: cross-sectional age and gender differences in optimism

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Abstract

Purpose – The purpose of this paper is to test the cognitive construct of optimism (positive future outcome expectancies) and the age-gender differences in Indian sample.
Design/methodology/approach – The sample consists of 363 older, middle-aged and younger male and female employees. The study adopted a cross-sectional survey based research design.
Findings – Results revealed that middle-aged employees have high levels of optimism as compared to the old age and younger employees. Further, the males reflected high optimism levels in comparison to female employees in middle and old aged adult employees, whereas females have higher optimism level in younger age in Indian select organisations.
Research limitations/implications – The study suggests that the continuous changes in the lifespan lead to changes in one's attitude and hence results in behavioural changes. The research indicates that optimism should be cultivated in the individuals by providing training and development to promote the competence and skill-building events which would help in enhancing the productivity resulting in better understanding of the scenario at workplace.
Originality/value – The work supplements the existing literature on positive attitude or outcome expectancies by adding to the lifespan development theory.

Keywords Optimism, Gender differences, Age differences, Indian study, Lifespan theory, Personal optimism, Self-efficacy optimism

Paper type Research paper

1. Introduction

Research on age-related patterns has remained a fundamentally interesting topic for psychologists who examine trait like features reflecting individual personality differences (Anusic et al., 2012). As an agentic trait or the means by which an individual carries out the personal agency, optimism has been related to the development of humans and hence gained its place in positive psychology. This has further led to the enlightenment and identification of various theories to define constructs such as optimism, happiness and others (Bailey et al., 2007). Scheier and Carver (1987) defined optimism as “an attitude or mood associated with an expectation about the social or material future – one which the evaluator regards as socially desirable, to his [or her] advantage or pleasure”. Also, Gavrilov-Jerković et al. (2014) defined optimism as the general expectation of positive outcomes without emphasising the agent who controls the outcome. Therefore, optimism is observed as an affective, cognitive and motivational construct (Peterson, 2002). Numerous studies have established that optimism is related to better coping strategies (Scheier et al., 1986), adjustment to college (Aspinwall and Taylor, 1992), life satisfaction (Bailey et al., 2007; Hayes and Weathington, 2007), career (Rosettes and Tost, 2010), social support (Ekas et al., 2010; Martinez-Marti and Ruch, 2017)

Conflict of interest: the authors declare that the authors have no conflict of interest. Ethical approval: all procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the Helsinki declaration and its later amendments or comparable ethical standards. Informed consent: informed consent was obtained from all individual participants included in the study.
as well as in better physical and psychological well-being (Joo and Lee, 2017). Further, very little research is available on how age influences optimism levels (You et al., 2009), especially in a diverse nation like India. Hence, the current study aims to bridge this gap by examining the age differences and exploring the moderation effect of gender in a cross-sectional study. The objectives of this study are:

- to empirically examine the effect of age (younger, middle-aged and older age) on the cognitive construct of optimism (personal optimism and self-efficacy optimism) in Indian employees; and
- to empirically examine the moderation effect of gender on the relationship between age and optimism in the Indian employees.

1.1 The Indian context
An emerging economy like India is considered the site for different cultures and further characterised by the inter-related concept of self (Mascolo et al., 2004). Additionally, studies have clarified the distinct attributional styles of those who have independent and interdependent concepts of self while drawing their non-western samples from eastern countries like India. Various researchers have classified the East Asian cultures (including India) as collectivistic rather than individualistic (Triandis and Suh, 2002).

Further, Indians are considered to be highly optimistic as a result of socio-economic and technological growth and a relative stability of the political system which differentiates it from many western nations. The early Vedic philosophies believed in the concept of optimism because people thought that through prayer, magic and co-operation with and by natural powers or Gods, all things are possible. Scholars such as K.P. Rao interpreted the Vedic studies and reflected that the ancient texts celebrate life, offering a sense of optimism and hope; they, in fact, negate pessimism.

Similarly, Corliss (2014) mentioned that the third element of religion refers to beliefs and assumptions which include optimism and the tones of pessimism are missing. Another major difference between western and non-western countries (like India) is the philosophy and ideologies of nations. Furthermore, as per a survey conducted by Ipsos MORI across 20 countries in 2014, people in western nations like Belgium, the USA, Spain, France, western Europe and Britain express hugely negative and pessimistic views, compared to non-western nations like India, China, Brazil, Turkey and Russia. Also, Indian youth is more optimistic about the future of oneself and society, relative to the general picture in other countries where individuals tend to be personal optimists and societal pessimists.

2. Theoretical background
2.1 Lifespan development theory
Lifespan theorists and researchers remind us that each period in life has its own developmental challenges. Baltes et al. (1998) suggested that development does not cease when adulthood is attained. Lifespan is multifaceted in nature and developmental changes involve an essential aspect of human action along with a momentum of personal development over the lifespan (Baltes, 1987). The theory of lifespan development suggests that intra-individual variability concerning traits and characteristics develop throughout the lifespan. Further, lifespan is led by a variable environment and a culture which helps in shaping intra-individual personality traits like optimism, hope, efficacy, etc. throughout life (Georgellis and Sankae, 2016). The theory emphasises the cognitive, emotive and societal development of an individual by embracing the developmental stages over an entire lifespan.
The theory is based on the premise that development is not completed at adulthood and extends across life. This further indicates that lifelong adaptations occur pertaining to differences in gender contrary to the traditional concept of development (Wohlwill, 1973). Additionally, there is a developmental agenda across the lifespan that contributes to the past, present and future focussing on the mechanisms and processes of mind and behaviour, namely the concepts of identity, self or memory. This is unique to every individual. Development is continuous and takes place across the entire lifespan (Weinert and Perner, 1996). The theory also highlights biological differences which shape a social role. The latter is frequently referred to as a gender role and focusses upon individual development (Nesselroade, 1990) that empowers individuals to live their lives in order to avoid undesirable outcomes. Lifespan development theory also explains the culture inclusive view of human development wherein culture predominantly explains gender along with cultural roles that define what one can do and one cannot, based on physical anatomy (Baltes et al., 2006). Further, it specifies a definite position or role being played by a particular gender, male or female. Gender has been fabricated from subjective and cultural connotations that continuously keep changing, contingent on place and time (Street et al., 1995). The meaning and definitions being used by society are known as gender stereotypes and are the individualities that are usually supposed to be distinctive, either of and for men or women. It follows that an agentic trait such as optimism could get altered, owing to the various roles being played by a particular gender (Crawford, 1995). Consequently, the variable of gender could affect the relationship or strength of direction between age (as the independent variable) and optimism (as the dependant variable).

3. Literature review

3.1 Optimism

Over time, the concept of optimism has gained new insights and has been validated as a measure of confidence and enthusiasm associated with positive thinking and relative advantage. Optimism is observed as an affective, cognitive and motivational construct (Peterson, 2002). The psychological construct contributes to the well-known construct of Psycap or Psychological capital (Luthans et al., 2007) which leads to a positive state of development. Numerous studies have been conducted to investigate the relationship of optimism with coping strategies (Cabras and Mondo, 2018), distress and well-being (Carver et al., 1993; Lee et al., 2017; Bouchard et al., 2017; Espirito Santo and Daniel, 2018; Bandyopadhyay, 2018), positive outcomes (Saks and Ashforth, 2002) and other variables.

3.2 Age differences in optimism

Past studies of optimism have focussed upon adolescence, childhood and older adults, with rather inconsistent outcomes (Yang et al., 2017). A study conducted by Lennings (2000) established that optimism increases with age. Yet, another study (Isaacowitz, 2005) suggested that optimism is not affected once the covariates are being controlled. Also, researchers (e.g. Palgi et al., 2011) indicated that age is unrelated to optimism in the case of China. You et al. (2009) revealed that older Americans are more optimistic relative to older Chinese. According to the theory of lifespan development, ongoing interactions between the individual and her or his surroundings or environment lead indeed to changes or adjustments. Thus, optimism as a dynamic construct could develop across the lifespan (Baltes et al., 2006).

Various studies have been conducted in western and individualistic nations which depicted that optimism is an individualistic trait and helps to determine different kinds of behaviours. The literature is rather silent in the context of Asian nations. In a young economy like India, a burgeoning youth is expected to become the largest workforce of the future. Of course, India is going through the sort of demographic transition that many other...
countries have already experienced, except on a far larger scale. In Japan and China, for example, the generations now in their 50s and 60s have lifted the countries to middle-income status and away from poverty. A vast ocean of sub-continental millennials will have to do the same for India, yet this generation is supposedly in their 20s only (Andrade and Westover, 2018). This patriarchal country is represented by various religions and has been dominated by its cultural context. The current study is one of its kind and tries to investigate age differences and the moderating effect of gender on the optimism level of individuals, bearing in mind that Indians are far more optimistic about their future compared with their western counterparts (Twinning, 2017).

Researchers and theorists (Schwarzer and Jerusalem, 2010; Schweizer and Koch, 2001) further investigated related constructs and concluded that optimism reveals overall positive expectations. In this sense, optimism is a wider construct which measures positive expectations not merely as a result of an individual’s control (Glaesmer et al., 2012) or personal optimism, but also as a result of external factors along with the influence of, e.g., a stable disposition (Monzani et al., 2014) to advance positive expectations of self-competence or self-efficacy optimism (Zenger et al., 2013).

3.3 Gender–differences in the development of optimism
Previous studies have meticulously looked into individual aspirations from diverse perspectives of differences which exist and can be attributed to gender (Babin and Boles, 1998). Drawing on previous findings analysing the role of gender in an employee context, a collective observation is that men are more task oriented or goal oriented (agentic in nature) and women are more relationship or communal oriented (Mostafa, 2017). Becker (1964) affirmed that the theory of human capital establishes that gender differences are prevalent in the occupational or vocational ends originating from the family itself (Ballout, 2007). Mishra (2013) suggested that gender has a significant effect on optimism levels. Furthermore, according to early socialisation theory, gender shapes individuals’ perceptions, attitudes, values and behaviours (Danziger and Eden, 2007).

3.4 Aims and hypotheses
The present study has the following aims: to analyse the pattern of optimism from younger to older-adult employees; to observe age-related patterns in self-efficacy optimism; to observe age-related patterns in personal optimism; and to inspect whether gender moderates any age trends in optimism.

Therefore, based on the aforementioned literature review, we hypothesise that:

**H1.** Age differences positively affect the optimism level in adult employees.
**H1a.** Age differences positively affect the personal optimism level in adult employees.
**H1.1a.** Old age positively affects personal optimism in adult employees.
**H1.2a.** Middle age positively affects personal optimism in adult employees.
**H1.3a.** Younger age positively affects personal optimism in adult employees.
**H1b.** Age differences positively affect the self-efficacy optimism level in adult employees.
**H1.1b.** Old age positively affects self-efficacy optimism in adult employees.
**H1.2b.** Middle age positively affects self-efficacy optimism in adult employees.
**H1.3b.** Younger age positively affects self-efficacy optimism in adult employees.

**H2.** Gender moderates the relationship between age differences and optimism (personal and self-efficacy) in adult employees.
H2a. Gender moderates the relationship between old age and optimism (personal and self-efficacy) in adult employees.

H2b. Gender moderates the relationship between middle age and optimism (personal and self-efficacy) in adult employees.

H3c. Gender moderates the relationship between young age and optimism (personal and self-efficacy) in adult employees.

4. Methods

4.1 Participants and procedures

The present study used a cross-sectional research survey design and the sample included junior-, middle- and senior-level employees working in selected Indian organisations. Specifically, the respondents were surveyed via a stratified sampling method (Suen and Ary, 2014). The data were collected by conducting personal visits and through training programs from the organisations. After conducting preliminary screening and subsequent processing of missing data, 25 survey forms were discarded, thereby resulting in overall 363 usable responses (out of 388 returned questionnaires).

Respondents consisted of 65.02 per cent male and 34.98 per cent female employees from manufacturing sector organisations in north India. The respondents were divided into three age groups: 21–35, 36–50 and 51–65 yrs for the current study. The demographic details are summarised in Table I.

<table>
<thead>
<tr>
<th>Demographics</th>
<th>Numbers</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>0.236</td>
<td>65.02</td>
</tr>
<tr>
<td>Female</td>
<td>0.127</td>
<td>34.98</td>
</tr>
<tr>
<td>Age (in years)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>21–35 (younger adults)</td>
<td>119</td>
<td>32.78</td>
</tr>
<tr>
<td>36–50 (middle-age adults)</td>
<td>136</td>
<td>37.47</td>
</tr>
<tr>
<td>51–65 (older adults)</td>
<td>108</td>
<td>29.75</td>
</tr>
<tr>
<td>Education level</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diploma holders</td>
<td>59</td>
<td>16.36</td>
</tr>
<tr>
<td>Graduate</td>
<td>119</td>
<td>32.78</td>
</tr>
<tr>
<td>Post graduate</td>
<td>143</td>
<td>39.39</td>
</tr>
<tr>
<td>Doctorate</td>
<td>42</td>
<td>11.57</td>
</tr>
<tr>
<td>Hierarchical level</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Junior level</td>
<td>143</td>
<td>39.39</td>
</tr>
<tr>
<td>Middle level</td>
<td>119</td>
<td>32.78</td>
</tr>
<tr>
<td>Senior level</td>
<td>101</td>
<td>27.83</td>
</tr>
<tr>
<td>Work experience (years)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0–5</td>
<td>71</td>
<td>19.55</td>
</tr>
<tr>
<td>6–10</td>
<td>83</td>
<td>22.86</td>
</tr>
<tr>
<td>11–15</td>
<td>81</td>
<td>22.31</td>
</tr>
<tr>
<td>16–20</td>
<td>75</td>
<td>20.66</td>
</tr>
<tr>
<td>Above 20</td>
<td>53</td>
<td>14.62</td>
</tr>
</tbody>
</table>

Note: n = 363

Table I. Demographic details
4.2 Measures

4.2.1 Optimism. An adapted version of a nine-item scale was used. The subscales of personal optimism contain four items and self-efficacy optimism consists of five items. This was adapted from the shorter version of a personal optimism and self-efficacy optimism scale (Gavrilov-Jerković et al., 2014; Bharti and Rangnekar, 2018) based on the Personal Optimism and Social Optimism-Extended scale of Schweizer and Koch (2001) to assess the concerned variables. The responses on the scale items were tapped using a seven-point Likert scale that ranged from strongly disagree (1) to strongly agree (7). The sample items of the questionnaire are “I don’t worry about my future at the workplace” and “I can think of something positive about the future in my organisation”. The internal consistency or the Cronbach’s α of the used scale and its subscales ranges from 0.81 to 0.87 as shown along the diagonal in Table II (Nunnally and Bernstein, 1978).

4.2.2 Age. Age was a continuous variable which has been divided into three age groups: 21–35 yrs (young adults), 36–50 yrs (middle aged adults) and 51–65 yrs (old age adults) for the current study. These age differences signify the disparity in age.

4.2.3 Gender. Gender has been used as a categorical variable in the current study and has been dummy coded, with 0 for male and 1 for female.

5. Analysis

5.1 Reliability and validity

Exploratory factor analysis was performed to explore the convergent validity (Table III). Further, the confirmatory factor analysis was accompanied using AMOS 24.0 to analyse the

<table>
<thead>
<tr>
<th>Variable</th>
<th>M</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Gender</td>
<td>1.29</td>
<td>0.46</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>2. Educational level</td>
<td>2.66</td>
<td>0.90</td>
<td>0.073</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>3. Hierarchical level</td>
<td>1.41</td>
<td>0.51</td>
<td>0.094</td>
<td>0.029</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>4. Work experience</td>
<td>2.10</td>
<td>0.87</td>
<td>0.863</td>
<td>0.418</td>
<td>0.261</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>5. Age</td>
<td>2.44</td>
<td>0.87</td>
<td>0.225</td>
<td>0.069</td>
<td>0.078</td>
<td>0.102</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>6. Personal optimism</td>
<td>3.09</td>
<td>0.947</td>
<td>0.044</td>
<td>0.061</td>
<td>0.513</td>
<td>0.113</td>
<td>0.165*</td>
<td>[0.813]</td>
<td></td>
</tr>
<tr>
<td>7. Self-efficacy optimism</td>
<td>3.90</td>
<td>0.82</td>
<td>0.053</td>
<td>0.029</td>
<td>0.043</td>
<td>0.201</td>
<td>0.181*</td>
<td>0.217*</td>
<td>[0.871]</td>
</tr>
</tbody>
</table>

Notes: n = 363. Cronbach’s α is represented along the diagonal. *p < 0.01

<table>
<thead>
<tr>
<th>Construct</th>
<th>Items</th>
<th>Factor loadings</th>
<th>Average loadings (AL)</th>
<th>AVE</th>
<th>CR</th>
<th>Reliability coefficient (CA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal optimism</td>
<td>PEROPT1</td>
<td>0.714</td>
<td>0.780</td>
<td>0.717</td>
<td>0.844</td>
<td>0.814</td>
</tr>
<tr>
<td></td>
<td>PEROPT2</td>
<td>0.769</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PEROPT3</td>
<td>0.813</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PEROPT4</td>
<td>0.821</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-efficacy optimism</td>
<td>SEOPT1</td>
<td>0.789</td>
<td>0.819</td>
<td>0.748</td>
<td>0.886</td>
<td>0.871</td>
</tr>
<tr>
<td></td>
<td>SEOPT2</td>
<td>0.793</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>SEOPT3</td>
<td>0.829</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SEOPT4</td>
<td>0.831</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SEOPT5</td>
<td>0.857</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes: PEROPT, personal optimism; SELF_EFFOPT, self-efficacy optimism
factor loadings. The reliability of the measuring instrument was checked by Cronbach’s $\alpha$. Additionally, average variance extracted (AVE), average loadings (AL) and composite reliability were used to check for validity and reliability of the items. All factor loadings after the analysis were found to be above the threshold level 0.50, signalling construct validity (Hair et al., 2006).

The AL of all constructs were found to be above 0.7. The loadings directly relate to the AVE. To pass the criteria of convergent validity, the construct must have AVE 0.5 and higher. The AVE for all the constructs was above 0.5 thereby verifying the constructs to be valid. The reliability constant (Cronbach’s $\alpha$) values indicated a value higher than 0.7, indicating a higher reliability of the measuring instrument. Table III shows the results of the validation of the measurement model. The results of the fit indices ($\chi^2$/df = 2.441; GFI = 0.918; AGFI = 0.885; NFI = 0.938; IFI = 0.961; CFI = 0.964; and RMSEA = 0.043) established that the instrument was reliable and fit for further analysis. Also, the outcomes established the discriminant validity (Fornell and Larcker, 1981) of the instrument shown in Table IV. MSV and ASV values should ideally remain less than AVE (MSV < AVE and ASV < AVE).

5.2 Structural equation modelling (SEM)

After analysing the validity and reliability measures, SEM was applied to test the hypotheses for the current study. The results have been displayed in Table V. The results depicted that all hypotheses have been supported in the present study at a significance level of $p < 0.01$. The strong $t$-value indicates a significant relationship. Personal optimism acts as a strong and positive dependant for adult employees of old ($\beta = 0.367, t = 9.618, p < 0.01$), middle age ($\beta = 0.545, t = 11.167, p < 0.01$) and young age ($\beta = 0.234, t = 7.842, p < 0.01$). Age differences in adult employees positively and significantly affect the self-efficacy optimism, where self-efficacy depends on old age ($\beta = 0.321, t = 15.879, p < 0.01$), middle age ($\beta = 0.483, t = 12.321, p < 0.01$) and young age adult employees ($\beta = 0.199, t = 6.342, p < 0.01$). Thus, all the results align with the prior literature.

### Table IV. Construct validity

<table>
<thead>
<tr>
<th>Convergent and discriminant validity</th>
<th>AVE</th>
<th>MSV</th>
<th>ASV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factor 1 (PEROPT)</td>
<td>0.717</td>
<td>0.581</td>
<td>0.483</td>
</tr>
<tr>
<td>Factor 2 (SELF_EFFOPT)</td>
<td>0.748</td>
<td>0.551</td>
<td>0.432</td>
</tr>
</tbody>
</table>

**Notes:** PEROPT, personal optimism; SELF_EFFOPT, self-efficacy optimism

**Source:** Author’s own

### Table V. SEM results

<table>
<thead>
<tr>
<th>Hypotheses No.</th>
<th>Hypotheses</th>
<th>$\beta$ (Standardized path coefficients)</th>
<th>$t$-value</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>$H1.1a$</td>
<td>Old age adults $\rightarrow$ Personal optimism</td>
<td>0.367**</td>
<td>9.618</td>
<td>Supported</td>
</tr>
<tr>
<td>$H1.2a$</td>
<td>Middle age adults $\rightarrow$ Personal optimism</td>
<td>0.545**</td>
<td>11.167</td>
<td>Supported</td>
</tr>
<tr>
<td>$H1.3a$</td>
<td>Younger adults $\rightarrow$ Personal optimism</td>
<td>0.234**</td>
<td>7.842</td>
<td>Supported</td>
</tr>
<tr>
<td>$H1.1b$</td>
<td>Old age adults $\rightarrow$ Self-efficacy optimism</td>
<td>0.321**</td>
<td>15.879</td>
<td>Supported</td>
</tr>
<tr>
<td>$H1.2b$</td>
<td>Middle age adults $\rightarrow$ Self-efficacy optimism</td>
<td>0.483**</td>
<td>12.321</td>
<td>Supported</td>
</tr>
<tr>
<td>$H1.3b$</td>
<td>Younger adults $\rightarrow$ Self-efficacy optimism</td>
<td>0.199**</td>
<td>6.342</td>
<td>Supported</td>
</tr>
</tbody>
</table>

**Notes:** *$p < 0.05$; **$p < 0.01$
5.3 Comparison of means using MANOVA

The multivariate analysis of variance was used to measure age differences (young, middle and old age adults) as the independent variable and two dependent variables: personal optimism and self-efficacy optimism (Warne, 2014). The analysis yielded a significant effect of the age groups: $F(16,260) = 3.49, \ p \leq 0.05$, as shown in Table VI.

5.4 Regression results

The current study used hierarchical moderated regression analysis to test the hypotheses, as shown in Table VII, consistent with recent studies (Kisamore et al., 2014). To evaluate $H1a$ and $H1b$, the control variables were entered in block 1 in the first step which was subsequently followed by the second step where the main effects were entered in block 2, which explained a significant variance in personal optimism ($\beta = 0.238, \Delta R^2 = 0.093, \ p \leq 0.05$) and self-efficacy optimism ($\beta = 0.317, \Delta R^2 = 0.131, \ p \leq 0.05$). Therefore, $H1a$ and $H1b$ stand accepted. We progresses with these steps to evaluate $H2$. Therefore, after the entry of control variables and main effects, the interaction term of $Age \times Gender$ was entered in block 3 which explained a significant proportion of variance in personal optimism ($\Delta R^2 = 0.074, \ p \leq 0.05, 7.4\text{ per cent variance}$) and self-efficacy optimism ($\Delta R^2 = 0.167, \ p \leq 0.01, 16.7\text{ per cent variance}$). This led to the acceptance of $H2$. The authors further analysed the interaction between age and gender in line with previous studies (Aiken et al., 1991).

<table>
<thead>
<tr>
<th>Variable mean (SD)</th>
<th>Young adults</th>
<th>Middle-aged adults</th>
<th>Older adults</th>
<th>$F$-value for between-subject effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal optimism</td>
<td>10.41 (3.19)</td>
<td>12.60 (3.15)</td>
<td>11.86 (3.09)</td>
<td>$F(2,250) = 5.67^*$</td>
</tr>
<tr>
<td>Self-efficacy optimism</td>
<td>14.77 (1.69)</td>
<td>16.70 (4.08)</td>
<td>15.31 (2.67)</td>
<td>$F(2,250) = 9.32^*$</td>
</tr>
</tbody>
</table>

**Notes:** *$p \leq 0.05$; **$p < 0.01$*

<table>
<thead>
<tr>
<th>Predictors</th>
<th>Personal optimism (DV)</th>
<th>Self-efficacy optimism (DV)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Step 1 ($\beta$)</td>
<td>Step 2 ($\beta$)</td>
</tr>
<tr>
<td><strong>Step 1 (CV)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>0.057*</td>
<td>0.045</td>
</tr>
<tr>
<td>Educational level</td>
<td>0.026</td>
<td>0.037</td>
</tr>
<tr>
<td>Hierarchical level</td>
<td>0.030</td>
<td>0.041</td>
</tr>
<tr>
<td>Work experience</td>
<td>0.031</td>
<td>0.042</td>
</tr>
<tr>
<td><strong>Step 2 (IV)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td>0.238**</td>
</tr>
<tr>
<td><strong>Step 3</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age × gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$F$-value</td>
<td>4.827*</td>
<td>59.397**</td>
</tr>
<tr>
<td>Sig. $F$-value</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td>$R^2$</td>
<td>0.112</td>
<td>0.171**</td>
</tr>
<tr>
<td>Adjusted $R^2$</td>
<td>0.115</td>
<td>0.193</td>
</tr>
<tr>
<td>$\Delta R^2$</td>
<td></td>
<td>0.093*</td>
</tr>
</tbody>
</table>

**Notes:** $n = 363$. *$p = 0.05$; **$p = 0.01$*

**Source:** Author’s own
The interaction plot for each age category was attained through the prediction of each outcome at high and low levels of optimism (+1.0 and −1.0 standard deviations from the mean; Stone and Hollenbeck, 1989). Figure A1 clearly depicts the moderating effect of gender. Looking at the interaction between age and gender as depicted in Figure A1, we can see that gender moderates the relationship between age and optimism.

6. Discussion

The present study examined the effect of age difference on the optimism level of adult employees along with the moderating effect of gender on optimism within the framework of lifespan development theory and gender role theory. The study further aimed to expand the existing literature on whether age of an individual affects his/her positive expectations, i.e., the tendency to expect that positive things would happen.

The outcomes of the study resulted in establishing that age differences influence the optimism level in adult employees. Thus, $H1$ stands accepted. This supported that, in an Indian context, middle-aged adult employees have higher level of optimism owing to growth orientation. Along with shifts in psychological adjustments, we observe developments into maintenance-related and prevention of loss orientations, which play a dominant part in old age (Palgi and Shmotkin, 2010). High optimism level can also be driven by motivational reasons such as an overall desire to feel happy owing to achievement orientation and stability (Chang and Sanna, 2001). The expectancy model (Atkinson, 1964) in middle age and old age is dialectical in nature which is comparatively interdependent in the case of younger adult employees. The results indicated that old adults have less optimism in comparison to middle-age adults.

The results indicate that as people age their time-based variables become less significant in predicting optimism and are arguably less important in acting as a predictor of satisfaction with life. Aging individuals have an ability to maintain self-views in changing times or environments (Burns and Seligman, 1989). Additionally, a sense of reality appears to develop referring to chronological age and the differential change in age, which affects optimism and further, to an extent, hinders satisfaction levels (Schaie and Willis, 2010). This is not entirely surprising. Learned dependency in old age due to various disabilities or diseases is a phenomenon of developmental or biological aging, which often makes the picture gloomy (Carstensen et al., 2006). The results also strongly support the psychological theory of aging, which reflects that development occurs throughout life and the balance of trajectories mainly focusses upon the changes in lifespan. This then focusses on growth and decline as important features of life (Dixon and Baltes, 1986). Changes in the lifespan are continuously affected by a sense of stability (a feature reflected by middle age), variations owing to future or economic instability, complexity owing to biological or cultural dimensions, and the impact of aging in process domains such as emotions, self, memory and others (Baltes et al., 2006).

The present study also supported the moderating effect of gender on the age differences and optimism relationship. Therefore, $H2$ stands accepted. The results indicated that males are more optimistic in middle age. Older age adult employees are in congruence with the life development theory, which relates to the achievement connotation or the way life has excelled or turned out for them. This stands in comparison with females who are supposed to take the responsibilities of a homemaker (Jacobson et al., 2008). There is a high level of agreement in society in a country like India, where the typical feminine and masculine roles or characteristics have been defined. They thus provide a cultural meaning as to who men and women “naturally” are (Chowdhury and Al Baset, 2018). What is more, individuals seem to follow stereotypical behaviours and beliefs, and usually do adapt to and adopt the prevailing norms of masculinity and femininity (Bohan, 2002). Interestingly, our results also indicate a higher level of optimism in younger female adult employees suggesting that...
females have realised the importance of career in their lives. Females can be considered as more optimistic about their opportunities for advancement and the values that are placed on their work (Eagly and Karau, 2002).

Sharot et al. (2011) recommend that relative to females, males are more optimistic and update their beliefs or opinions selectively based on the information available about the present, future, personal as well as general economic conditions or uncertainties. This environment affects their overall behaviours and, in turn, their careers. Additionally, studies also claim that gender-related roles and the societal background of countries, in this case, India, can affect outcome expectancies which indirectly affect work and hence a general outlook in life (Petroni, 2000). Particularly, females may make career-related decisions in sync with their age and set priorities in favour of a work-life balance owing to responsibilities of males and females in a family context or obligations towards one’s family rather than solely on the basis of seeking success as a career women, a corporate leaders or an entrepreneur (Forret et al., 2010). In a similar vein, the transition from college to professional status can affect the way an individual behaves. These considerations may include notions of “the appropriate age” for marriage or child bearing in the eyes of society. This can clearly act as a setback leading to a less optimistic outlook or expectancy for the outcome. As such, the gender difference might be a machination of a societal methodology rather than a true discrepancy in the prevalence of emotions like optimism, hope and resilience (Saquero et al., 2018).

7. Implications and conclusion

The earlier dialogue guides us to conclude that lifespan developments owing to aging is of considerable importance to comprehend the significance of optimism in one’s life, especially in the context of Indian employees in an environment, where the economy has been growing exponentially and where the environment is predicted to experience new and ongoing changes. Against this background, personal optimism and self-efficacy optimism should be cultivated in employees by providing training and development opportunities to promote competence and skill-building endeavours. Similarly, employees should understand the importance of positive thinking and to what extent such thinking affects the course of their work, their workplace behaviour and, in turn, their career trajectory. We argue that this should be a shared responsibility for both employees and employers. To this end, our study may be helpful to organisational behaviour and human resource practitioners who prepare relevant guidelines. Finally, the study has academic implications as it sheds light on having or developing a positive expectation climate and related outcomes that can help adolescents or students in framing their future. The study also significantly contributes to theory and establishes theoretical considerations, especially in an Indian context where there is a lacuna of literature sources. Promising results have suggested that including the role of positive thinking and cultivating a positive attitude towards the future can help students and adolescents plan in advance for their professional as well as personal lives. Further, the study indicates that there is a gender gap, suggesting that males and females differ in the level of optimism, i.e. personal and self-efficacy optimism. Thus, our findings extend a pattern in related research and draw attention to the importance of a better understanding of optimism postulated in earlier expectancy models.

Above all, the study emerged with a surprising finding related to the age or lifespan and gender being associated with positive future outcome expectancy in the workplace. A promising area of further interest involves the mechanisms by which an individual’s age or stage of lifespan, according to the lifespan development theory, affects the development of optimism (Isaacowitz et al., 2003). Thus, we conjecture that short-term hedonic changes in individuals can lead to a complex relationship with optimism across the lifespan.
8. Limitations and future research directions

The current study is a pioneering work, in the sense that it analyses age differences in the optimism levels of adult employees in India. Moderation analysis was performed to examine the role of gender in the relationship. The study is one of the types which add to the literature in an Indian context and can be generalised in terms of industry and culture. There are, of course, limitations of the current study which we wish to bring to the reader’s attention.

The study categorised the demographics into age and gender differences. Other demographics such as religion, income, education and others might also affect optimism levels in individuals. Future studies are encouraged to inspect these aspects. A longitudinal research design and/or an experimental study instead of using self-reported measures would also add value, not least since cross-sectional studies are unable to demonstrate causality.

The present study has been conducted in a culturally dominated nation (India) which stands second in terms of population volume and hence can be studied in different countries and cultural contexts. A comparative study could also be undertaken as the case of a developed economy and a developing economy may differ significantly. Such differences would arguably impact the optimistic viewpoint in career-driven individuals. Beyond country comparisons, our study can also be undertaken by considering other variables, such as pessimism, positive and negative affect, career and correlates, social support or interpersonal relationship, well-being, spirituality, happiness, emotional intelligence, employee commitment and others.

Finally, in the Indian economy, the expectation and reality paradigm of a career focussed woman moves from skill or expertise to a mere fulfilment of social norms and beliefs and thus becomes usually preoccupied by social stigmas. However, there has been a transformational reversal in the roles being played by females and males, especially since increasing participation among millennials has been observed. Thus, future studies may wish to focus more explicitly on results for millennials. Such results may differ significantly from observations of the present study, owing to generational changes in perception and thought process.

References


EBHRM
7,2


Web references


Further reading


Appendix

About the authors
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Figure A1. Two way interaction plot between age and gender on (a) self-efficacy optimism and (b) personal optimism.

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