



Gender Does not Strengthen Investment Knowledge and Motivation in Generation Z

Aisha Hanif¹ (✉), Chyndi Dwi Nofianti¹, Dina Dwi Oktavia Rini¹,
and Ratna Anggraini Aripriatiwi²

¹ FBHIS Universitas Muhammadiyah Sidoarjo, Sidoarjo, Indonesia
aishahanif@umsida.ac.id

² FEBI UIN Sunan Ampel Surabaya, Surabaya, Indonesia

Abstract. This study aims to determine the effect of investment knowledge and Motivation on Generation Z's investment decisions during the Covid-19 pandemic and whether the gender variable strengthens or weakens investment knowledge and Motivation in Generation Z's investment decisions during the Covid-19 pandemic. This research is research with a quantitative approach. The data source is primary data, with a purposive sampling technique obtained from distributing questionnaires. The population in this study were students of the Accounting Study Program, Faculty of Business, Law and Social Sciences, Universitas Muhammadiyah Sidoarjo. At the same time, the Sample is 255 students of the Accounting Study Program, Faculty of Business, Law and Social Sciences, Universitas Muhammadiyah Sidoarjo. The data analysis technique used the Structural Equation Model (SEM). The study results show that investment knowledge and Motivation significantly affect investment intentions. Meanwhile, Gender cannot strengthen investment knowledge and Motivation for investment decisions. The implication of research is that investment knowledge and motivation have an influence on investment interest, so this needs to be improved so that it is able to continue to increase investment interest among students. Meanwhile, gender is not able to support both in influencing a person's interest in investing .

Keywords: Investment Knowledge · Motivation · Gender · Investment Decision

1 Introduction

Corona Virus Disease 2019, better known as Covid-19, first appeared in Wuhan, China. At the end of 2019, the virus continued to develop and began to spread to all corners of the world. On March 2, 2020, the government first confirmed the case of Covid-19 in Indonesia until March 31, 2020, through the Presidential Decree of the Republic of Indonesia Number 11 of 2020 concerning the Determination of *Corona Virus Disease* 2019 (Covid19) Public Health Emergency. However, along with the Covid-19 pandemic, people are led to carry out activities normally amid a virus attack. Because of this need, many digital platforms have begun to emerge by offering various conveniences for people to do everything *online*. One of the conveniences provided is to make it easier for people

to invest and educate their users about basic knowledge in investing. The Coordinating Ministry for Economic Affairs of the Republic of Indonesia released that the Indonesian economy continues to improve during the Covid-19 pandemic. In the third quarter of 2021, the Indonesian economy grew positively by 3.15% (y-to-y) or 1.55% (q-to-q).

Investment is a component that determines a country's expenditure level in economic development. Investment is closely related to activities that aim to make a future profit by utilizing assets owned in the present. Investment is delaying the current consumption of a certain amount for some time from the efficient assets that the investor performs, intending to obtain future profits at a certain level as expected and better than the current consumption [1]. PT. Indonesian Central Securities Depository (PT. KSEI), at the end of November 2021, noted that the number of investors was increasing. The increasing interest in investment shows that people in Indonesia are beginning to realize the importance of making investments, which strengthens the country in the success of the Indonesian National Financial Literacy Strategy (SNLKI) program.

Several things can affect investment interest, one of which is investment knowledge. In this case, it is a form of investment interest. Before investing, one will learn about the ins and outs of investing. Higher investment knowledge will make a person more interested in investing. Investment interest can also be influenced by internal factors from within oneself and external factors such as the surrounding environment, family environment, and economic conditions. Previous studies have shown that investment knowledge can positively affect stock investment decisions. Besides that, investment knowledge can also increase investment interest. However, the results of this study are also contrary to research conducted by other researchers, one of which is that researchers show that investment interest cannot be influenced by investment knowledge and tends to be negative [2]. Previous studies still show distorted results. This proves that investment knowledge has not been proven to fully encourage investment interest.

Generation Z was born between 1997–2012, with an estimated age now between 8–23 years. The proportion of generation Z recorded at 27.94% of Indonesia's total population of 74.93 million people. When viewed from vulnerable age, some of generation Z is the generation that has just entered the world of work. This supports the participation of generation Z in making investments, as evidenced by the end of November 2021, the number of investors with vulnerable ages of 17–30 years was 59.81%. The large percentage of Generation Z in the productive age who are familiar with advanced technology can be an opportunity to accelerate economic growth in Indonesia through investment.

In making investments, courage is embraced in making decisions and can analyse which stocks will run according to investment goals. Basic knowledge about investing is an important thing for potential investors to know. It aims to avoid fraudulent investment practices, the culture of Indonesian people who like to follow along, and the risk of loss. Several previous studies have shown that Motivation can significantly affect a person's investment interest, where a higher investment motivation will also increase investment interest. However, the results of this study are also contrary to research conducted by other researchers, one of the researchers showed that investment interest cannot be influenced by motivation [3].

Another thing that can affect investment interests is *Gender*. *Gender* in eastern culture is a limiting factor for women in doing things. From a societal perspective, the status of women is generally considered lower than that of men, so often, women do not have the same opportunities to do things. In general, *Gender* creates differences in roles, responsibilities, functions, and even the space in which humans move. So this makes *Gender* interesting to research, and it is alleged that *Gender* can be a factor that can influence a person in making investments.

1.1 Theory of Planned Behaviour

The Theory of *Planned Behaviour* (TPB) develops the *Theory of Reasoned Action* (TRA). The *theory of planned behaviour* runs based on the assumption that humans are rational and systemic thinking creatures, where a person will think about the implications of their actions before deciding to act. *The theory of planned behaviour* explains that an attitude towards behaviour can estimate an act, considering subjective norms and measuring the control of the person's perceptual behaviour. Based on the *theory of planned behaviour*, a person's intention to perform a behaviour is determined by three factors, namely attitude toward behaviour (attitude), subjective norm (*subjective norm*), and *perceived behavioural control* (control of perceptual behaviour) [4]. *The theory of planned behaviour* states that humans can act according to the intentions and perceptions of control influenced by behaviour, subjective norms, and behavioural control [5]. A person who intends to invest gets support from the surrounding environment and has an investment perception that has no obstacles in investing. The person's intention will be higher to invest.

1.2 Theory of Reasoned Action

The Theory of Reasoned Action (TRA) is a theory that can predict a person's intention to act. Referring to TRA, behavioural intention is a function of *attitude* and *subjective norms* toward behaviour [6]. *The theory of planned behaviour* and the *theory of reasoned action* are useful for identifying how and where to direct strategies for behaviour change and explaining each important aspect of some human behaviour [6]. The *theory of reasoned action* explains that behavioural interest and behaviour are two different things. Interest or intention is the desire to do one, while the behaviour is the actual action the individual does [7].

According to [6], the theory of planned behaviour and the theory of reasoned action has some limitations in estimating behaviour, namely the breadth of factors that influence intention. Empirical research shows that the theory of planned behaviour can explain only 40% of behavioural variants. The *theory of reasoned action*, applying theories with varying time gaps, makes inaccurate results and individual behaviour that changes over time. From the limitations, the theory of planned behaviour and the *theory of reasoned action* cannot fully predict the *behaviour of* each individual because certain individuals do not perform actions according to the criteria specified at the beginning.

1.3 Investment Knowledge

According to [8], knowledge is an element that fills a person's intellect and soul nature consciously, which is manifestly contained in his brain. For an investor, knowledge in investing is very important; with qualified knowledge, an investor can manage existing risks as an opportunity to reduce the impact of losses that will occur when making investments [9]. Investment knowledge is often interpreted as an individual's rationale and benchmark in investing, which contains a theoretical summary of the risks, *returns*, and other benefits [10]. With qualified investment knowledge, investors can find the most profitable investments. Therefore, investment knowledge is quite important for investors and potential investors. H1: Investment knowledge affects investment interest.

1.4 Motivation

Motivation is taken from the word motive, a force in a person that causes someone to act or do something. In the Big Indonesian Dictionary (KBBI), Motivation is the impulse that arises in a person consciously or unconsciously to act with a specific purpose. Motivation is the basic Motivation that moves a person to behave. It is designed to achieve certain goals that have indicators in the form of a desire and desire to carry out activities, the presence of encouragement and need to carry out activities, the existence of hopes and ideals, appreciation and respect for oneself, the existence of a good environment, and the existence of interesting activities [11]. According to [8, 12, 13], investment motivation is the encouragement of a person to take action related to investment. So it can be concluded that investment motivation is an impulse or desire in a person to act to invest.

H2: Motivation affects investment interest.

1.5 Investment Interest

Interest is interpreted as a high inclination of the heart towards something, in which case something is an investment. Investment interest is the desire to learn about the type of investment, starting from the advantages, weaknesses, investment performance, and so on [13]. Investment interest is a strong interest in investing in getting profits in the future [8]. Interest is closely related to individual interest in something, where interest is one of the reasons for individuals to do something personal. However, the environment and people around can influence interests, so interest must be developed to achieve the desired initial goal [10]. From previous research, it can be concluded that interest is a desire that arises in a person to observe everything that happens in the surrounding environment.

H3: Gender strengthens investment knowledge of investment interests.

1.6 Gender

Gender is a socially and culturally constructed difference between men and women related to roles, behaviours, and traits deemed worthy of interchangeable men and women [14]. According to *nurture* theory, *Gender* is the difference between women and men from the results of socio-cultural constructions resulting in different roles and tasks.

According to *nature*, *Gender* is a difference between women and men, which is natural, so it cannot change and is universal [15]. *Gender* roles are what men and women should, deserve, and do not deserve based on values, culture, and societal norms [14]. Meanwhile, *gender* roles are divided into three, (1) the productive role is often referred to as the role of the public sector, which is a role performed by a person regarding work that produces goods and services, (2) the role of reproduction, also known as the role of the domestic sector, is the role that a person carries out for activities related to the maintenance of human resources and the work of household affairs, (3) the social role is a role carried out by a person to participate in social activities.

H4: Gender strengthens Motivation toward investment interest.

2 Methodology

This research is included in causal associative research, which aims to determine the results of causation between variables using a quantitative approach. The data source is taken directly, namely primary data. The data collection technique is used by distributing questionnaires directly to respondents. In hypothesis testing, the primary data obtained is then processed using *Partial Least Square* (PLS) data processing software operated through *Smart PLS 3 software*.

Researchers selected respondents from students of the Faculty of Business, Law, and Social Sciences with the Accounting Study Program at the University of Muhammadiyah Sidoarjo. In this study, the sample chosen by the researcher was a student who met the criteria. The sample criteria that have been determined in this study are as follows, (a) the Sample is a Faculty of Business, Law, and Social Sciences student with an Accounting Study Program at the University of Muhammadiyah Sidoarjo, (b) the Sample belongs to Generation Z, born in 1997–2012, and the estimated age is now between 10–25 years, (c) sample is a student who has studied portfolio theory and investment analysis.

The method of determining the number of samples uses the Slovin formula with a percentage of leeway of 5% to achieve conformity. Based on the calculation results using the Slovin formula above, the number of samples obtained was 255 respondents.

Researchers used data analysis techniques in hypothesis testing with a *Structural Equation Model* (SEM) approach with *Partial Least Square* (PLS) data processing software operated through *Smart PLS 3 software*. *Structural Equation Model* (SEM) is one of the methods used in analysing path equations, where SEM can simultaneously test a series of difficult-to-quantify relationships. *Partial Least Square* (PLS) is a good analytical tool because *Partial Least Square* (PLS) is considered more immune to data changes when new samples are added and taken from the total population.

3 Results and Discussion

3.1 Hypothesis Testing Results

Based on Fig. 1 shows that Investment Knowledge (X1) has a significant positive effect on Investment.

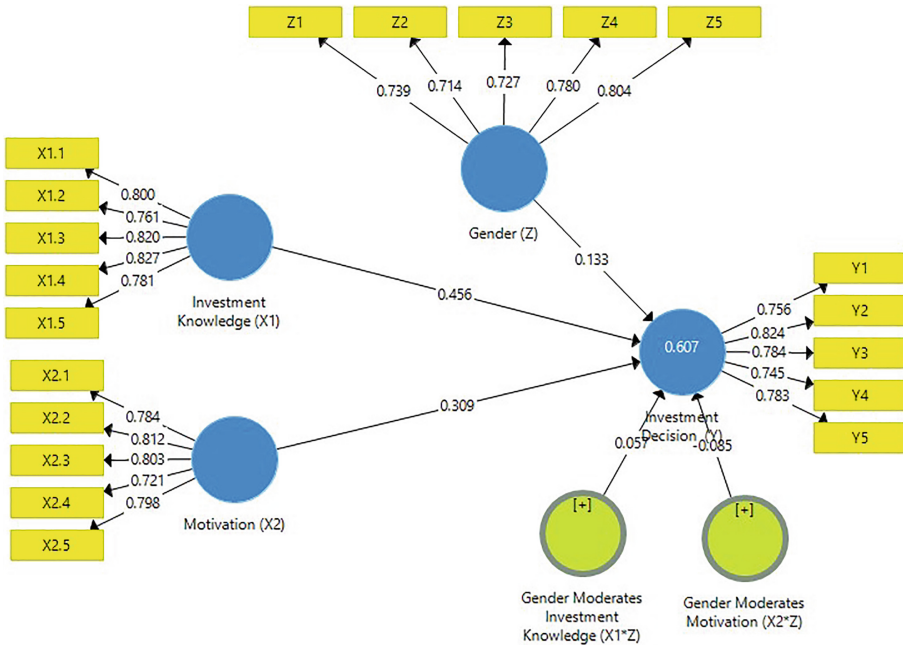


Fig. 1. Output Result PLS Algorithm. Sources: data processed, 2022

Interest (Y), in line with Motivation (X2) which also has a significant positive influence on Investment Interest (Y).

While Gender (Z) has a significant positive effect on Investment Interest (Y), Gender (Z) is not able to strengthen Investment Knowledge (X1) to Investment Interest (Y), and Gender (Z) is also unable to strengthen Motivation (X2) to Investment Interest (Y). The following is the path coefficient of the bootstrapping PLS test, which has results as shown in the Table 1.

Based on the results, the path that forms the research hypothesis, along with the magnitude and level of significance. It can be known that the test criteria state if the T-Statistical value > the T-Table value, it can be stated that there is an influence between the independent variable and the dependent variable on each hypothesis used in the study. Based on the following result of hypothesis testing that has been carried out with the results below:

The first hypothesis states that Investment Knowledge (X1) affects Investment Interest (Y). The test results showed that the Investment Knowledge variable (X1) had a T-Statistical value of 6.668, which was greater than the known T-Table value of 1.969. The P-Values value is 0.000, which is smaller than 0.05, with the original Sample in a positive direction of 0.456. it shows that the variable Investment Knowledge (X1) has a significantly positive influence on Investment Interest (Y), so the first hypothesis is accepted.

The second hypothesis states that Motivation (X2) affects Investment Interest (Y). The test results showed that the Motivation variable (X2) had a T-Statistical value of

Table 1. Hypothesis Testing

Variable	Original Sample (O)	Sample Average (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
<i>Gender (Z) → Investment Interest (Y)</i>	0,133	0,147	0,061	2,166	0,031
<i>Gender moderates motivation (X2*Z) → investment interest (y)</i>	-0,085	- 0,081	0,063	1,346	0,179
<i>Gender moderates investment knowledge (X1*Z) → investment interest (y)</i>	0,057	0,061	0,057	1,001	0,317
<i>Motivation (X2) → Investment Interest (Y)</i>	0,309	0,298	0,065	4,769	0,000
<i>Investment Knowledge (X1) > Investment Interest (Y)</i>	0,456	0,461	0,068	6,668	0,000

Source: data processed, 2022

4.769, which was greater than the known T-Table value of 1.969. The P-Values value is 0.000, which is smaller than 0.05, with the original Sample in a positive direction of 0.309. The Motivation variable (X2) significantly influences Investment Interest (Y). Based on this, it can be concluded that the second hypothesis is accepted.

The third hypothesis states that Gender (Z) can strengthen Investment Knowledge (X1) to Investment Interest (Y). The test results showed that the Gender (Z) variable had a T-Statistical value of 2.166 and a PValues value of 0.031 with a positive directional original sample of 0.133. It showed that the Gender (Z) variable significantly positively influenced Investment Interest (Y). However, the Gender variable moderating Investment Knowledge (X1*Z) to Investment Interest (Y) has a T-Statistical value of 1.001 and a P-Values of 0.317, while the known T-Table value is 1.969. Where with the T-Statistics value < T-Table and P-Values > 0.05 indicates that the Gender variable (Z) is not able to strengthen Investment Knowledge (X1) to Investment Interest (Y). Based on these results, then for the third hypothesis is rejected.

The fourth hypothesis states that Gender (Z) can strengthen Motivation (X2) toward Investment Interest (Y). The test results showed that the Gender (Z) variable had a T-Statistical value of 2.166 and a P-Values value of 0.031 with an original positive sample of 0.133. It showed that the Gender (Z) variable significantly positively influenced Investment Interest (Y). However, the Gender variable moderating Motivation (X2 * Z)

for Investment Interest (Y) has a T-Statistical value of 1.346 and a P-Values of 0.179 while the known T-Table value is 1.969. Where with the T-Statistics value $<$ T-Table and P Values $>$ 0.05 indicates that the Gender variable (Z) is not able to strengthen Motivation (X2) to Investment Interest (Y). Based on these results, then for the third hypothesis is rejected.

3.2 Discussion

This study is intended to test the influence of Investment Knowledge and Motivation on Investment Interest moderated by Gender in students majoring in accounting at the University of Muhammadiyah Sidoarjo who have met the sample criteria. Based on the results of the analysis, the discussion of the research results is as follows:

Investment Knowledge Positively Affects Investment Interest

The results of the study stated that Investment Knowledge (X1) had a significant positive effect on Investment Interest (Y), following the first hypothesis that had been made. The results of the study show that the first hypothesis is accepted where the investment knowledge variable (X1) has a significant positive effect on investment interest (Y).

In line with previous research conducted by [9], which stated that Investment Knowledge has a positive effect on Stock Investment Decisions, investment knowledge or education is needed by a potential investor before entering the world of capital markets or business. Knowledge is the basis for building strength for a person to be able to do something desired. Investment Knowledge has a significant positive effect on Investment Interest, where good or bad Investment Knowledge can be used as a reference for measuring Investment Interest [12].

Motivation Positively Affects Investment Interest

From the results of the study, it is stated that Motivation (X2) has a significant positive effect on Investment Interest (Y), following the second hypothesis that has been made. The results of the study show that the second hypothesis is accepted where the variable Motivation (X2) has a significantly positive effect on Investment Interest (Y).

In line with previous research conducted by [13], where Motivation has a significant positive influence on investment interest, a large motivation or encouragement in a person to invest will grow one's interest in making investments. Also stated that Motivation has a significant effect on Investment Interest, with high investment motivation will increase students' interest in investing [8]. Stated that Investment Motivation has a significant positive effect on Investment Interest, meaning that good or bad Motivation can be used as a reference to measure investment interest [12].

Gender Strengthens Investment Knowledge of Investment Interests

The test results showed that the variable Gender (Z) was unable to strengthen Investment Knowledge (X1) to Investment Interest (Y). In line with previous research by [5], which showed that the Gender variable did not affect the investment interest variable, and there was no significant difference in interest between students and students. They were supported by [16], who stated that Gender could not moderate knowledge of investment decisions. This is due to the condition of education that has been evenly distributed so

that women and men get the same opportunities, as well as [17] research which says that gender variables cannot moderate knowledge of student interests.

Gender Reinforces Motivation for Investment Interest

The test results showed that the Gender (Z) was unable to strengthen motivation (X2) to Investment Interest (Y). In line with previous research by [5], the Gender variable did not affect the investment interest variable, and there was no significant difference in interest between students and students. He was supported by [17], who said that the Gender variable could not moderate Motivation toward Investment Interest.

4 Conclusions

From research related to the Influence of Investment Knowledge and Motivation on Investment Interest with Gender as moderation, the following conclusions were obtained: Investment Knowledge has a positive and significant influence on Investment Interest, meaning that the higher the Investment Knowledge will make a person more interested in investing. Motivation directly has a positive and significant influence on Investment Interest, meaning that the higher the level of investment motivation that a person has, the higher the Investment Interest in him. Gender is unable to strengthen Investment Knowledge of Investment Interests, with a good understanding of Gender equality will help women and men to get equal rights and opportunities in all fields, one of which is in the interest of investing. Gender is unable to strengthen Motivation for investment interest. Gender cannot influence a person to invest, so women and men are entitled to equal opportunities in all fields, one of which is the interest in investing.

Based on the results, conclusions have been drawn as follows: For the Community, This research is expected to increase knowledge of the importance of insights into investment and behaviour, The study results also provide an overview of investment decision-making regarding Investment Knowledge, Motivation, and Gender towards Generation Z Investment Interests during the Covid-19 pandemic. For the Government, As material for reviewing government programs related to investment interests, Investment Knowledge and Motivation can increase higher Investment Requests. And Share Your Next Research, It is expected to expand the population so that it can produce more samples so that the research can produce better and more significant results. In addition, it is also recommended to add indicators of each variable to represent the entire variable.

References

1. Yoyo Sudaryo, A. Y. (2017). *Investment Banks and Financial Institutions*. Yogyakarta: Andi.
2. Reksa Jayengsari, d. N. (2021). Pengaruh Pengetahuan Investasi Dan Motivasi Terhadap Minat Investasi Di Pasar Modal Syariah Pada Mahasiswa Fakultas Ekonomi Dan Bisnis Islam Universitas Suryakencana Cianjur. *ELECOSY: Jurnal Ekonomi Dan Keuangan Islam Vol. 01, No. 02* , 165–182.
3. Hermanto. (2017). Perilaku Mahasiswa Ekonomi Di Universitas Esa Unggul Dalam Melakukan Investasi Di Pasar Modal. *Jurnal Ekonomi Volume 8 Nomor 2* , 1–12.
4. Art, N. N. (2017). Theory Of Planned Behavior To Predict Investment Intentions. *E-Journal of Economics and Business Udayana University 6.12*, 4043-4068.

5. Timothius Tandio, d. A. (2016). The influence of capital market training, returns, risk perceptions, *Gender*, and technological advances on students' investment interests. *E-Journal of Accounting Udayana University Vol.16.3. ISSN: 2302–8556 , 2316–2341*.
6. Sari, R. C. (2018). *Behavioral Accounting Theory & Implications*. Yogyakarta: ANDI.
7. I Wayan Jeremiah Natawibawaa, G. I. (2018). Theory of Reasoned Action as a Predictor of Whistleblowing Intention of Financial Managers in Educational Institutions. *Scientific Journal of Public Administration (JIAP)*, 4 No. 4, 310-319
8. Akhmad Darmawan, K. K. (2019). Investment knowledge, Motivation, financial literacy, and the family environment influence investment interest in the capital market. *Scientific Journal of Accounting and Finance, Vol.08, No.02*, 44-56
9. Niswatul Amalia, A. M. (2020). Factors Influencing Decision Making On Stock Investments. *E-JRA Vol. 09 No. 01 , 29-39*
10. AmyMastura, S. N. (2020). The influence of investment motivation, investment knowledge, and information technology on the interest in investing in the capital market. *JIAGABI Vol. 9, No. 1, ISSN 2302 - 7150 , 64-75*
11. Uno, H. B. (2016). *Teori Motivasi & Pengukurannya (Analisa di Bidang Pendidikan)*. Jakarta: Bumi Aksara.
12. Hasanudin, A. N. (2021). The influence of investment knowledge, Motivation, and capital market training on investment decisions mediated by investment interests. *JIMEA | MEA Scientific Journal (Management, Economics, and Accounting) Vol. 5 No. 3*, 494–512.
13. Bayu Tri Cahya, Nila Ayu Kusuma W. (2019). The Effect of Motivation and Technological Advances on Stock Investment Interest. *Al-Masharif: Journal of Economic and Islamic Sciences Volume 7 Number 2*, 192–207.
14. Azisah, S. (2016). *Contextualization of Gender, Islam, and culture*. Makassar: Alauddin University Press.
15. Sasongko, S. S. (2009). *Gender Concepts and Theories*. Jakarta: BKKbn.
16. Dr. Mas Rahma, S. M. (2019). *Hukum Pasar Modal*. Jakarta: Kencana.
17. Rahadjeng, E. R. (2011). Perilaku Investor Analisis Perilaku Investor Perspektif Gender Dalam Pengambilan Keputusan Investasi Di Pasar Modal Humaity, 90–97.

Open Access This chapter is licensed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License (<http://creativecommons.org/licenses/by-nc/4.0/>), which permits any noncommercial use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

