

## **MODELS OF EMOTIONAL INTELLIGENCE: A REVIEW**

Pavitra Kanesan & Norsiah Fauzan

### **ABSTRACT**

Models of emotional intelligence have been categorised into three models known as ability model, mixed model and trait model as Bar-On, Goleman and Petrides, Salovey and Mayer defined emotional intelligence differently. This paper reviews conceptualisations of emotional intelligence by analysing the goodness and weakness in the models of emotional intelligence. Generally, the existing models have described emotional intelligence as personal intelligence (understanding, managing and utilising emotion in oneself) and social intelligence (understanding and managing emotion in others). The review concludes that ability model is the best model to elaborate emotional intelligence phenomena as emotional intelligence is (1) viewed as intelligence, (2) founder of emotional intelligence proposed this model, (3) ability model fits well with the common definition, “managing emotion in oneself and in others”; (4) emphasizes pure form of emotional intelligence excluding personality trait compared to mixed and trait models.

**Keywords:** ability model; emotional intelligence models; trait model; mixed-model.

### **INTRODUCTION**

Thorndike (1920) did the early work on emotional intelligence by viewing intelligence from a different dimension known as “social intelligence”. Thorndike defined social intelligence as “the ability to understand and manage men and women, boys and girls to act wisely in human relations” (p. 228). In other words, social intelligence is about understanding and managing others. Then, Gardner (1983) proposed multiple theory of intelligence by defining intelligence as “the ability to solve a problem” (p. 25). In his multiple intelligence theory, intelligence was divided into eight aspects including intrapersonal and interpersonal intelligence. Intrapersonal intelligence is about introspecting, while interpersonal intelligence is about understanding others. Both intrapersonal and interpersonal intelligence serves as a foundation for the development of emotional intelligence concept by Salovey and Mayer (Mayer & Salovey, 1997; Salovey & Mayer, 1990).

In 1990, Salovey and Mayer expounded the term “emotional intelligence”. The psychologist in the eighteenth century divided mind into three major components namely cognitive, affective and motivation components. The term “emotion” indicates affective component while “intelligence” indicates cognitive component. According to Mayer and Salovey (1997), emotional intelligence is a persons’ capability to perceive, express, understand, use, and manage emotions in oneself (personal intelligence) and in others’ (social intelligence) which lead to adaptive behaviour. In other words, emotional intelligence is the ability to understand and regulate emotions, in this context, Bandura’s self-efficacy theory, proposed that, belief held by an individual is the foundation in presenting certain ability or skills effectively (Bandura, 1977). Therefore, if individuals believe that they have the ability to understand and regulate emotions, they will exhibit higher emotional intelligence.

Although, emotional intelligence was developed by Salovey and Mayer in 1990, it reached its fame in 1995 as Howard Goleman published a book on emotional intelligence (Goleman, 1995). Since then, emotional intelligence was widely known and practised in the workplace as Goleman (1995) professed that 80% of success at work is determined by emotional intelligence and only 20% by ordinary intelligence. Interestingly, emotional intelligence is acquired by learning adaptive emotional skills and increases by time (Goleman, 1995; Mayer & Salovey, 1997). According to incremental theory, effort is compulsory in creating, developing, and applying ability (Dweck, Chui, & Hong, 1995). Therefore, as emotional intelligence is a form of intelligence (ability), it can be enhanced by training and learning.

## **MODELS OF EMOTIONAL INTELLIGENCE**

Literatures have shown that the models of emotional intelligence have been categorised into three models known as (1) ability model, (2) mixed model and (3) trait model as different theorists defined emotional intelligence differently and theorist like Bar-On, Goleman and Petrides categorised emotional intelligence as a non-cognitive except Salovey and Mayer, the pioneer of emotional intelligence. Generally, the existing models have described emotional intelligence as personal intelligence (understanding, managing and utilising emotion in oneself) and social intelligence (understanding and managing emotion in others).

Variation in definitions of emotional intelligence proposed by major theorists contributed to the development of various emotional intelligence models. Salovey and Mayer (1990) defined emotional intelligence as “the ability to monitor one’s own and other’s emotions, to discriminate among them and to use the information to guide one’s thinking and actions” (p. 189). Goleman (1995) on the other hand explained that emotional intelligence is any underlying personal characteristic that is not represented by cognitive intelligence. However, Bar-On viewed emotional intelligence as non-cognitive capabilities, competencies, and skills that influence an individual’s ability to cope with environmental demands and pressures successfully (Bar-On, 1997). By contrast, Petrides and Furnham (2001) defined emotional intelligence as a trait and it is a constellation of emotional self-perceptions located at the lower levels of personality hierarchies. These various definitions of emotional intelligence have contributed to the development of three emotional intelligence models: (1) ability model, (2) mixed model and (3) trait model.

Generally, the existing models have categorised emotional intelligence as personal intelligence and social intelligence. Salovey and Mayer (1990) explained emotional intelligence as understanding and managing one’s own (personal) and other’s emotions (social). Similarly, Bar-On’s mixed model of emotional intelligence included intrapersonal (personal) and interpersonal (social) dimensions (Bar-On, 1997). On the other hand, Goleman’s (2001) refined mixed model also focused on self-awareness and self-management (personal) and social-awareness and relationship management (social). Likewise, Petrides and Furnham (2003) agreed that emotional intelligence construct is all about processing affect-stacked information intrapersonally (personal) and interpersonally (social). Therefore, it can be concluded that emotional intelligence revolves within personal and social intelligence and the initial model proposed by Mayer and Salovey (1997) is already saturated.

## **ABILITY MODEL OF EMOTIONAL INTELLIGENCE**

Ability model of emotional intelligence is made up of four sets of emotion processing mental abilities, which arranged in the order from very basic to higher-level ability. Mayer and Salovey's (1997) model comprised of ability namely (1) perception, appraisal and expression of emotion, (2) emotional facilitation of thinking, (3) understanding and analysing emotions, and (4) reflective regulation of emotions. Each group of the ability has four levels that ranged from the very basic level to the highest advanced level.

Mayer and Salovey (1997) described perception, appraisal, and expression of emotion dimension as the ability to identify and differentiate emotion in oneself and in others. The process of perception, appraisal, and expression of emotion starts with ability to identify one's own emotions via body arousal, inner feelings, and thoughts. Subsequently, as an individual mastered in generalising emotions based on their self-experience, the ability to identify others' emotion by observing surrounding cues develops. Following that, an individual could express feelings coherently to the surrounding cues. Finally, an individual can differentiate between accurate and inaccurate expressions of feelings, as well as recognise or ascertain between honest and dishonest expressions of feelings.

Another dimension of emotional intelligence in ability model is emotional facilitation of thinking dimension (Mayer & Salovey, 1997). Emotional facilitation of thinking dimension is described as the ability to use emotion in facilitating the thinking processes such as reasoning, problem-solving, and interpersonal communication. At the basic level, an individual will use emotions to prioritise thinking by focusing on important information in their surrounding environment. Eventually, an individual can generate vivid emotions to aid judgments and memory process. An individual will feel, manipulate, and examine the generated emotion deeply to plan or make a decision. Once then, an individual can think from various perspectives by utilising their emotional mood swing. Specifically, bad mood leads to pessimistic thoughts while good mood leads to optimistic thoughts. As the mood swings, thinking style will shift too. Hence, an emotionally intelligent persons tend to be more flexible while constructing a plan as they use emotional mood swing ability (Mayer & Salovey, 1997; Salovey & Mayer, 1990). The highest level in emotional facilitation of thinking dimension is the ability to recognise reasoning induced by the emotion. Happiness (emotional state) facilitates creative and inductive reasoning while sadness (emotional state) facilitates deductive reasoning.

The third dimension, understanding and analysing emotions, explains an individual's ability to classify emotions and understand meanings implied by those emotions (Mayer & Salovey, 1997). Labelling emotions and recognising similarities and differences between the emotions labelled is fundamental for understanding emotion. For instant, joy is an emotion of great delight or happiness meanwhile, sadness is an aversion emotion that makes us wants to cry and withdraw ourselves from the surroundings (Reeve, 2009). Succeeding that level, leads to the ability to interpret the emotion and its origin, like sadness accompanied a loss; happiness accompanied gain. Once then, the person can understand the complex feelings or blended feelings at a time, such as simultaneous feelings of love and hate. Finally, an individual mastered in understanding and analysing emotions, able to recognise transitions between emotions. For instant, anger can be a shame or satisfaction based on the circumstances of a situation.

The last dimension, reflective regulation of emotion dimension is the ability to prevent, reduce, enhance, or modify our own and others' emotion (Mayer & Salovey, 1997). This encourages cognitive and emotional growth of an individual. In fact, good regulation of

emotion, facilitate thinking processes to plan. Basically, individual with a good reflective regulation of emotions tend to accept both pleasant and unpleasant feelings. Eventually, they learn to engage or detach from an emotion based on its utility. Subsequently, the individual could monitor and reflect one's own and others' emotions. Finally, the individual will become proficient in managing their emotions by enhancing pleasant emotions and moderating unpleasant emotions.

The ability model is the most influential model as it purely uses cognitive ability in processing emotions and scientifically proven. Furthermore, Mayer and Salovey (1997) argued that emotional intelligence is ability based and not a trait (consistent behaviour over time) as it increases by age and training (Goleman, 1995; Mayer & Salovey, 1997). Additionally, Cherniss (2010) stated that the best model of emotional intelligence is ability model as it follows the common definition of emotional intelligence, "managing emotion in oneself and in others" which also agreed by other major theorists including Petrides, Goleman and Bar-On. In this perspective, O'Boyle, Humphrey, Pollack, Hawver, and Story (2011) agreed that instruments based on ability model are the best as it has the capability to differentiate emotional intelligence from related variables such as personality and other competencies. Therefore, in this study, the ability model and instrument developed based on ability model was used to describe the phenomena as it emphasizes the pure form of emotional intelligence excluding trait.

## **MIXED MODEL OF EMOTIONAL INTELLIGENCE**

Mixed model of emotional intelligence enjoys the goodness of both competency (ability) and general disposition (trait). There are two big mixed models of emotional intelligence proposed by Bar-On (Bar-On, 1997) and Goleman (2001) respectively. Basically, Bar-On's mixed model is more theoretical, meanwhile Goleman's mixed model is more to practical.

Bar-On (1997) is viewed emotional intelligence as non-cognitive capabilities, competencies, and skills that influence an individual's ability to cope successfully with environmental demands and pressures (Bar-On, 1997). The original model has five dimensions with 15 components. Intrapersonal skills comprise self-regard, emotional self-awareness, assertiveness, self-actualisation, and independence, while interpersonal skills consist of empathy, interpersonal relationship, and social responsibility were described in the first and second dimensions, respectively. This is then followed by adaptability dimension that includes problem-solving, flexibility, and reality testing. The fourth dimension is stress management comprises stress tolerance and impulse control. In the last dimension, general mood such as happiness and optimism were explained. In 2000, Bar-On (2000) refined his original model by re-categorising the components into constituent components (self-regard, emotional self-awareness, assertiveness, empathy, interpersonal relationship, problem-solving, flexibility, reality testing, stress tolerance; impulse control) and facilitators (self-actualisation, independence, social responsibility, optimism; happiness). Figure 1 shows the original Bar-On's mixed model of emotional intelligence with five main dimensions and components in each dimension.

Figure 1: Components in Bar-On's mixed model of emotional intelligence

<b>Intrapersonal</b> Self-regard, emotional self-awareness, assertiveness, self-actualisation; independence		<b>Interpersonal</b> Empathy, social responsibility, interpersonal relationships	
<b>Adaptability</b> Problem-solving, flexibility; reality testing	<b>Stress Management</b> Stress tolerance; impulse control	<b>General Mood</b> Happiness; optimism	

Goleman (1995) explained that emotional intelligence is any underlying personal characteristic that is not represented by cognitive intelligence. The initial model comprises five dimensions with twenty-five emotional intelligence competencies (Goleman, 1998). First dimension is self-awareness whereby an individual is able to recognise his/her emotions, strengths, weaknesses, goals, motivations, and impact of their emotion on others. Second dimension is self-regulation that includes recognising, control, and redirects their negative emotions into more productive or positive purpose. Third dimension is social skills, which include managing relationships with others and directing others. Fourth dimension is empathy: considers others' feeling when making decisions. Last dimension is the motivation, the urge or drive for achievement. Later in 2001, Goleman refined his model into four dimensions with twenty emotional intelligence competencies based on the work by Boyatzis and Rhee (Goleman, 2001). The dimensions in the refined model are self-awareness, self-management, social-awareness; relationship management. Figure 2 shows the mixed model of emotional intelligence that integrates an individual's ability and personality by Daniel Goleman (Goleman, 2001).

Figure 2: Refined framework of Goleman's mixed model of emotional intelligence

	Self (Personal Competence)	Other (Social Competence)
Recognition	<b>Self-Awareness</b> <ul style="list-style-type: none"> <li>• Emotional self-awareness</li> <li>• Accurate self-assessment</li> <li>• Self-confidence</li> </ul>	<b>Social Awareness</b> <ul style="list-style-type: none"> <li>• Empathy</li> <li>• Service orientation</li> <li>• Organisational awareness</li> </ul>
Regulation	<b>Self-Management</b> <ul style="list-style-type: none"> <li>• Emotional self-control</li> <li>• Trustworthiness</li> <li>• Conscientiousness</li> <li>• Adaptability</li> <li>• Achievement drive</li> <li>• Initiative</li> </ul>	<b>Relationship Management</b> <ul style="list-style-type: none"> <li>• Developing others</li> <li>• Influence</li> <li>• Communication</li> <li>• Conflict management</li> <li>• Visionary leadership</li> <li>• Catalysing change</li> <li>• Building bonds</li> <li>• Teamwork and collaboration</li> </ul>

Source: adapted from Goleman (2001)

Both Goleman's (1995) and Bar-On's (1997) mixed model of emotional intelligence assimilates the goodness of both competency (ability) and general disposition (trait). The idea of mixed model is actually broad-based and good. However, the problem with mixed model is the construct, as it is redundant with personality traits. It can be said that, the mixed model is not purely measuring emotional intelligence, as it focused more on adaptive functioning such as social skills, coping with stress, motivation which less likely to be categorised as either



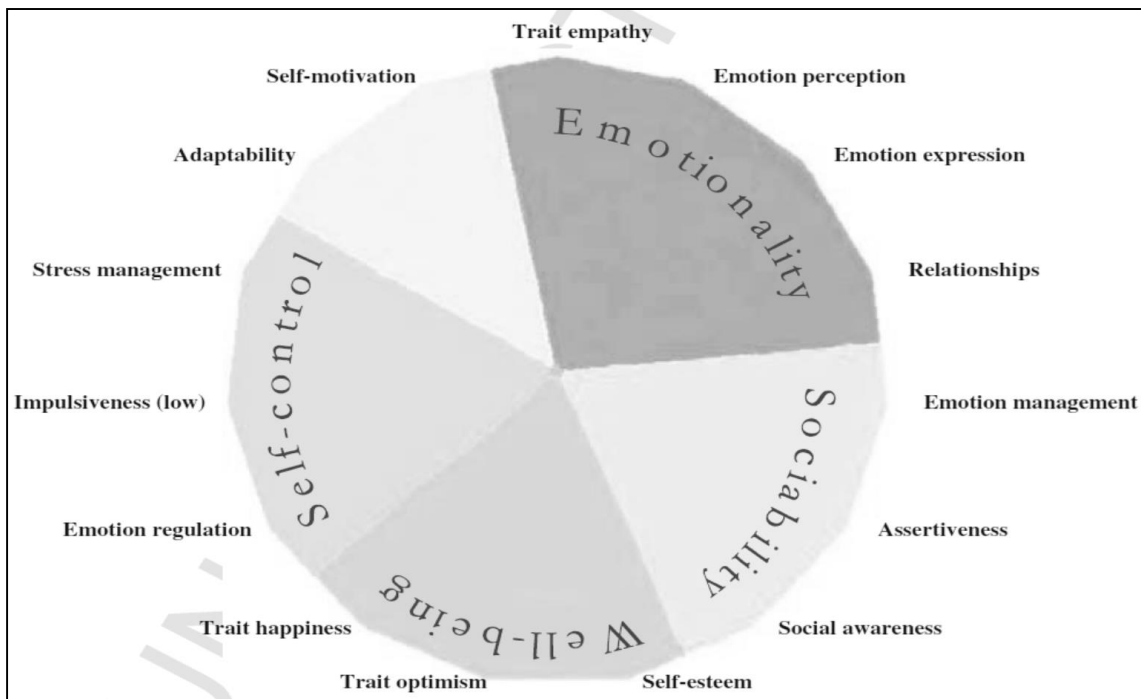
emotion or intelligence. In addition, Goleman's (1995) model includes imprecise terms used in practice, which is hard to appraise scientifically (Petrides, 2010). On the other hand, various definitions of emotional intelligence have contributed to the development of various models. In this aspect, Bar-On (1997) defined emotional intelligence as non-cognitive capabilities, however in his model he included problem-solving skills which is widely known as cognitive ability. In other words, the component in the Bar-On model is ambiguous. Cherniss (2010) also agreed that Bar-On's and Goleman's models included wider concepts (ability and trait) which are contrary to the widely accepted definition of emotional intelligence by Salovey and Mayer. Therefore, these models do not qualify as true, exemplary models.

Additionally, the founder of emotional intelligence Mayer and Salovey (1997) claimed that emotional intelligence is the cognitive ability to process emotion and assigned the ability in a sequence from basic to higher level. However, in mixed models, emotional intelligence components are not arranged sequentially. Moreover, Bar-On's emotional intelligence measure, Bar-On's Emotion Quotient Inventory (EQ-i) showed low discriminant validity with personality measures. Webb et al. (2013) study found that two-thirds (62%) of the variance in Bar-On Emotion Quotient Inventory scores was accounted by Big Five personality traits and emotional well-being (adaptive functioning). This shows the components as having a high degree of overlapping with personality traits and adaptive functioning. Therefore, using mixed model concept to evaluate emotional intelligence is incongruous and inept. Hence, it was ruled out.

## **TRAIT MODEL OF EMOTIONAL INTELLIGENCE**

Petrides and Furnham (2001) explained that emotional intelligence is entwined to self-perceived ability and tendency to behave. Therefore, personality dimension should be used to measure emotional intelligence and proposed the idea of Trait emotional intelligence (or trait emotional self-efficacy). Trait emotional intelligence composed of fifteen emotion-related facets scattered across personality dimensions and clustered under four factors namely, well-being, self-control, emotionality, and sociability (Petrides, 2009). Well-being is related to better adaptation. Self-control is controlling urges and desires. High emotionality indicates perception and expression emotions to establish and maintain a relationship. Lastly, sociability is related to social relationships and social influence. Meanwhile, adaptability and self-motivation facets directly feed global trait emotional intelligence. Figure 3 shows trait emotional intelligence model of Petrides (2009).

Figure 3: Trait model of emotional intelligence by Petrides



Source: adapted from Petrides (2009)

Studies have been proven that trait emotional intelligence as overlapping even similar to general personality factor (Van et al., 2017), although Petrides and Furnham (2001) stated that trait emotional intelligence is located at the lower levels of personality. To add on, trait emotional intelligence seems to be reframing emotional intelligence into mainstream of known Big Five personality theories. Petrides (2009, 2010) argued that emotional intelligence is a trait and not intelligence, which actually does not make sense. Intelligence as an ability to solve problems (Gardner, 1983), similarly, emotional intelligence is the ability to identify, understand, and relate of an emotion to solve problems which involves information processing and memory (Mayer, Caruso, & Salovey, 2000). Moreover, according to Horn and Cattell (1966), intelligence can be fluid (reasoning; problem-solving) or crystallised (knowledge; experience). With this aspect, fluid emotional intelligence is based on processing emotion-information; meanwhile the crystallised emotional intelligence is based on knowledge and experience (Ortony, Revelle, & Zinbarg, 2007). Additionally, Carroll (1993) stated that, in order to consider a proposed intelligence as a new domain of cognitive intelligence, it should show positive associations with the existing intelligence factors; concurrently not highly overlapped with existing intelligence. In this aspect, study by Schulte, Ree, and Carretta (2004) proved that emotional intelligence is a new kind of intelligence as it moderately correlated to general intelligence (g) and the impact of general intelligence on emotional intelligence was predicted by both personality and gender. Cherniss, Extein, Goleman, and Weissberg (2006) also agreed that emotional intelligence is different from both intelligence quotient (IQ) and personality. Therefore, it clearly shows that emotional intelligence is an intelligence and not to be clustered as personality.

Furthermore, intelligence increases with age (Horn & Cattell, 1966; Mayer et al., 2000). In contrast, personality trait is inborn characteristic, which persists over time and

situation (Mayer & Salovey, 1997; Morris & Maisto, 2002). In fact, studies on emotional intelligence agreed that emotional intelligence increases with age (Goleman, 1995; Mayer & Salovey, 1997). Therefore, emotional intelligence should not be measured as a trait. To apply this model, it is contentious that emotional intelligence is intelligence. Hence, using this concept to evaluate emotional intelligence is incongruous and unsuitable.

## CONCLUSION

The review concludes that emotional intelligence revolves within personal and social intelligence and the initial model proposed by Mayer and Salovey (1997) is already saturated. Ability model is the best model to elaborate emotional intelligence phenomena as emotional intelligence is (1) viewed as an intelligence; (2) founder of emotional intelligence proposed this model; (3) ability model fits well with the common definition, “managing emotion in oneself and in others” (Cherniss, 2010); (4) emphasizes pure form of emotional intelligence excluding personality trait (O’Boyle et al., 2011).

## ACKNOWLEDGEMENT

I would like to thank Madam Mai Sumiyati Ishak for her guidance.

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## **ABOUT THE AUTHORS**

### **PAVITRA KANESAN**

Universiti Malaysia Sarawak  
[pavitrakanesan91@gmail.com](mailto:pavitrakanesan91@gmail.com)

### **ASSOCIATE PROFESSOR NORSIAH FAUZAN**

Universiti Malaysia Sarawak  
[fnorsiah@unimas.my](mailto:fnorsiah@unimas.my)